

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS  
FOR THE YEARS ENDED SEPTEMBER 30, 2020 AND 2019**

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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, 2020, 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](http://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 17, 2020.

**COMPANY OVERVIEW**

Microbix Biosystems Inc. (Microbix or the Company (TSX: MBX is an award-winning life sciences innovator and exporter making critical ingredients that enable the production of clinical diagnostics (antigens and creating medical devices that help ensure test accuracy (quality assessment products, also known as 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 or an analogue to 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's antigens and QAPs are sold to more than 100 customers worldwide, primarily to multinational diagnostics companies and laboratory accreditation organizations.

Microbix also applies its biological expertise and infrastructure to develop other proprietary products and technologies, most notably its emerging project to manufacture viral transport media (VTM for stabilizing patient samples to enable lab-based molecular (PCR testing, and Kinlytic® urokinase, a biologic thrombolytic drug used to treat blood clots.

It must be recognized that the COVID-19 pandemic is impacting all industries, including medical diagnostics. As a result trend discussions here may be disrupted. For example, in fiscal 2020 sales of antigens were depressed due to fewer patients seeking or receiving care for diseases other than COVID-19. However, more broadly speaking, revenue from the antigens and QAPs business (Antigens & QAPs is expected to continue growing for the foreseeable future. Antigen sales growth may be largely driven by certain public health tests becoming more widely used in the Asia Pacific region and, more recently, increased global testing for respiratory pathogens. QAPs sales growth may be driven by Microbix's creation of new value-added, branded and proprietary products and by increasing European and American quality-management 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)

Microbix owns and operates a biologicals manufacturing facility at 265 Watline Avenue in Mississauga, Ontario. For that facility, Microbix has a Pathogen and Toxin license issued by the Public Health Agency of Canada. The Company's administrative offices, along with further production and lab spaces, are in a leased building located at 235 Watline Avenue, Mississauga, Ontario. Microbix is ISO 9001 & 13485 accredited, FDA & Health Canada establishment licensed, and provides CE marked products.

## FINANCIAL OVERVIEW

### Year ending September 30, 2020 ("2020")

2020 revenue was \$10,524,904, a 22% decrease from 2019 revenues of \$13,412,341. Included were antigen product revenues of \$8,688,239 (2019 - \$11,980,527), QAPs revenues were \$1,527,998 (2019 - \$1,087,200) and royalties were \$308,667 (2019 - \$344,614). Antigen sales declined 27% versus the prior year, due to global focus upon testing for COVID-19 disease at the expense of more routine diagnoses. In contrast, Microbix's sales of QAPs grew by 41% versus 2019, reflective of continuing sales of white-labelled products to lab accreditation organizations, initial stocking orders of branded QAPs to the five distribution partners engaged in the spring, and revenues from the custom QAPs development agreement announced in June.

Gross margin for this year was 44%, down from 49% last year. Margins were impacted by changes in product mix year over year, and most specifically due to problems with bioreactor equipment and supplier materials reliability that resulted in multiple lost batches. This occurred principally in the first-ever quarter of constant usage of all bioreactor units (fiscal Q3) and had a large negative impact on margin and bottom-line results. Those problems are being addressed with heightened scrutiny of suppliers, process monitoring, and preventative maintenance, and are thereby targeted to be non-recurring.

Operating expenses decreased by 4% from 2019, primarily a result of slightly higher foreign exchange gains, wage subsidies and lower travel and trade show costs in the last half of the year, due to COVID-19 travel restrictions. The company also determined that the deferred tax asset balance of \$1,568,237 was to be written down during the fourth quarter due to the heightened business uncertainties related to the COVID-19 pandemic. Additionally, the asset value of Kinlytic<sup>®</sup> urokinase of \$3,078,585 has been written down during the fourth quarter, likewise as a result of the increased difficulty in securing partner funding for this project during the pandemic and a consequent inability to reliably project the timing to conclude such an alliance. These two asset write downs have not affected the company's cash balances.

Lower sales, fewer gross margin dollars, the write down of the deferred tax assets and the impairment of assets for the year led to an operating loss of \$1,580,703 and net loss of \$6,227,525 versus an operating income of \$43,681 and net income of \$31,918 in 2019. Cash from operations was \$8,566, compared to cash from operations of \$44,368 in 2019.

At the end of 2020, Microbix's current ratio (current assets divided by current liabilities) was 1.59 and its debt to equity ratio (total debt over shareholders' equity) was 1.36.

### Quarter Ending September 30, 2020 ("Q4")

Q4 revenue was \$2,705,732, a 25% decrease from Q4 2019 revenue of \$3,587,285. Included were antigen product revenues of \$2,151,767 (2019 - \$3,092,285), QAPs revenues were \$505,898 (2019 - \$406,831) and royalties were \$48,067 (2019 - \$84,016). Q4 sales were impacted by lower antigen sales as outlined above and changes in product mix. This was offset by QAPs Q4 sales which increased by 24% vs. prior year.

Q4 gross margin was 35%, down from 44% in 2019, due to lower margin product mix in Q4 2020, along with the aforementioned bioreactor issues.

# MICROBIX

## COMPANY OVERVIEW (Continued)

### Quarter Ending September 30, 2020 (“Q4”) (Continued)

Operating expenses in Q4 decreased by 25% from 2019, primarily due to receipt of government wage subsidies and lower travel and trade show costs. As outlined above, the deferred tax asset and an intangible asset (Kinlytic® urokinase) were written down during the quarter. Lower sales and fewer gross margin dollars during the quarter led to an operating loss of \$336,175 and net loss of \$4,982,997 versus an operating loss of \$127,738 and net loss of \$48,816 in Q4 2019. Cash used in operations was \$216,083, compared to cash from operations of \$574,570 in 2019.

### Financial Highlights

As at and for the quarter ended

	2020	2019
Total Revenue	\$ 10,524,904	\$ 13,412,341
Gross Margin	4,660,897	6,547,447
SG&A Expenses	4,172,372	4,395,496
R&D Expense	1,013,126	1,042,192
Financial Expenses	1,056,102	1,066,078
Operating Loss for the year, before Impairment of Assets and Income Taxes	(1,580,703)	43,681
Net Income (Loss) and Comprehensive Income (Loss) for the year	(6,227,525)	31,918
Cash Provided (Used) by Operating Activities	8,566	44,368
Cash	92,661	95,571
Accounts receivable	1,877,009	1,709,470
Total current assets	6,492,832	6,452,308
Total assets	15,598,011	19,629,573
Total current liabilities	4,090,038	4,765,895
Total liabilities	8,978,534	9,092,165
Total shareholders' equity	6,619,477	10,537,408
Current ratio	1.59	1.35
Debt to equity ratio	1.36	0.86

### SELECTED QUARTERLY FINANCIAL INFORMATION

	Dec-31-18	Mar-31-19	Jun-30-19	Sep-30-19	Dec-31-19	Mar-31-20	Jun-30-20	Sep-30-20
	\$	\$	\$	\$	\$	\$	\$	\$
<b>Sales</b>	2,460,812	4,253,629	3,110,615	3,587,285	2,046,348	2,874,496	2,898,328	2,705,732
Net Income (Loss) and Comprehensive Income (Loss)	(119,296)	391,352	(191,322)	(48,816)	(585,265)	(219,030)	(440,233)	(4,982,997)
Operating Loss before Impairment of assets	(119,296)	482,037	(191,322)	(127,738)	(585,265)	(219,030)	(440,233)	(336,175)

**OUTLOOK**

Microbix's primary business is the result of 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 being the general trend. 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.

From 2017 until the emergence of the COVID-19 pandemic, growth in demand for Microbix's antigens had been stronger to end-customers in both established and emerging markets. Much of that growth was 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 were achieving growing sales into Asia. While we believe Asia-Pacific demand for antigens should continue to grow over time, sales to this newer market were also adding to the quarter-to-quarter volatility of Microbix's revenues. In 2020, antigen demand has demonstrated further volatility as a result of the COVID-19 pandemic and its impacts on patient behaviours and global allocation of testing resources.

Beyond COVID-19, the long-term effect of increasing Asia-Pacific test usage may be to take Microbix's potential market from being the population of North America and Western Europe to closer to the much larger overall global population. As a leading global supplier of such vital native antigens that has created and validated leading-edge production techniques, Microbix believes it is now well-prepared to fulfill such demand growth.

In 2020, a further potential antigens market driver emerged in the form of the COVID-19 pandemic. While Microbix does not currently supply native or recombinant antigens for immunoassay tests for the Coronavirus that causes COVID-19 disease (properly called the SARS-CoV-2 virus), it does expect to see lasting long-term benefits within its antigens business. Such benefits would initially come from increased testing capacity in general, and specifically from increased testing for respiratory pathogens other than the SARS-CoV-2 virus. Notably, healthcare practitioners are likely to want a definitive diagnosis of the reason for illness if a patient tests negative for SARS-CoV-2 (i.e., if not that, then what?) and will need to know if a patient is co-infected with another respiratory pathogen if they test positive for SARS-CoV-2 (e.g., at greater risk because co-infected with an influenza virus or a resulting bacterial infection). Microbix has begun to see its flow of orders for some of its respiratory antigens increase, as its products form an integral part of some approved tests. However, in the short term, patient testing for diseases other than COVID-19 are being disrupted as a result of several factors, including testing resources limitations, patient reluctance to see medical professionals for non-emergency issues, and recurring societal lockdowns. It is important to note that these factors are not unique to Microbix, but are affecting the entire diagnostics industry on a worldwide basis.

Microbix's QAPs business involves the use of antigens and nucleic acids for purposes beyond the large-scale manufacturing of medical test kits. This newer usage packages a very small amount of stabilized and inactivated bacteria, virus, or representative analogue, into individual small vials (e.g., 1.0 ml) or dried onto sample collection swabs (i.e., Copan® “FLOQSwabs®”). 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, if staff has been adequately trained and is performing properly, or if reagents have spoiled. Such innovative, proprietary, and branded quality assessment products (QAPs™, pronounced as “caps”) are a high value end-use of Microbix's biologicals expertise and there is a growing need for such products as regulators progressively tighten their surveillance of the competence of medical testing labs. Notable drivers for such demand are the U.S. “CLIA” regulations, European Union IVD-D and IVD-R regulations, and ISO 15189 standards, that are all encouraging labs to increase use of quality products from qualified third parties across their ever-broadening portfolio of tests. Microbix now derives close to 20% of its sales from providing QAPs – to laboratory accreditation organizations, diagnostic test and instrument-makers and to clinical laboratories (directly and via distributors).

**OUTLOOK (Continued)**

The COVID-19 pandemic has presented a pertinent illustration of the need for QAPs and Microbix's capabilities to create, license/register, and manufacture such products. As Microbix concluded this emerging pathogen had potential to create a pandemic, it began the development of QAPs products directed at supporting the accuracy of emerging molecular (RT-PCR) tests for the virus. Discussions around the development of this product began in February and culminated in the announcement of an internally and externally validated prototype on March 30, Health Canada (MDEL) licensing of commercial products on April 21, U.S. FDA registration on May 7, and the European Union "CE Mark" on June 5. Microbix announced the first shipment of QAPs as licensed medical devices to support accuracy of the testing programs of Canadian clinical labs on May 6, to European distributors on June 15, and to Microbix's U.S. distributor on June 30. Subsequent to the September 30 fiscal year-end, Microbix announced two further projects to support the fight against the pandemic – A project to produce viral transport media (VTM) in support of Ontario's RT-PCR testing for COVID-19 disease (October 13), and the creation of QAPs to support antigen-based testing for COVID-19 disease (October 20). Throughout this very challenging year, everyone at Microbix has been working hard to help conquer the new challenges to human health and well-being.

Due to the positive prospects of each of the above lines of its business and products, Microbix continues to reinvest to better ensure that it can meet expected growth in demand. Such work includes upgrading its manufacturing technologies, quality systems, processes and training, capacity and allocation of resources, 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. Starting in fiscal 2018, multiple upgrades to facilities have been completed and further investments will be made in infrastructure going forward, such as those announced on May 27 and October 13. Additionally, Microbix will be investing in our 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 has been positioning for continuing sales growth, particularly of its QAPs product lines, 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.

Fiscal 2020 proved to be challenging for many companies, including Microbix. The COVID-19 pandemic is disrupting normal antigen ordering patterns and has delayed the widespread uptake of Microbix's novel and innovative QAPs for high-risk Human Papilloma Virus (HPV) molecular testing. The development and registration of leading-edge QAPs to support COVID-19 test accuracy have partially, but not fully, offset these disruptions and delays.

Also notable has been the departure from our fiscal 2020 yield/margin objectives for bioreactor production – principally in Q3. Specifically, equipment and materials failures, as we moved to a more intensive level of production, led to an unacceptably high rate of batch failures over the period. Steps have been undertaken to correct that situation, including heightened preventative maintenance and part-change programs, tighter scrutiny on materials, along with process-related steps to increase the yield of successful batches. Management at all levels took responsibility for the resulting margin losses, which were largely responsible for the net loss reported in Q3. Progress upon Corrective and Preventative Actions (CAPAs) has been material, with a near cessation of batch losses and significant improvements to average net yields.

Going forward, Microbix is continuously working to improve its percentage gross margin while also growing its sales of antigens and QAPs, and commencing sales of VTM. 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, larger sales of a broader suite of quality assessment products, and making VTM a meaningful third source of sales. Achievement of Microbix's sales and gross margin goals is expected to lead to meaningful quarterly net earnings.

## OUTLOOK (Continued)

Quarterly reporting will update shareholders on progress with such operational goals.

With regards to Kinlytic urokinase, Microbix's biologic clot-buster therapeutic, it is management's opinion that the COVID-19 pandemic has increased the difficulty of securing a partnering agreement to obtain the required re-development funding. This is for two reasons: (i) the pandemic has disrupted the business of the hospital-oriented product companies that are the logical partners for this asset (due to fewer normal-course procedures being done) and thereby constrained the new product budgets of such companies, and (ii) ongoing restrictions on physical travel (i.e., closed borders, quarantines, etc.) are making it more difficult to advance negotiations, conclude partnerships, and manage off-site manufacturing or clinical trial work.

Accordingly, Microbix cannot represent a precise timeline for securing a funding partner to advance the re-development of Kinlytic to sBLA filing and renewed commercial sales. As a consequence, management is required to follow International Financial Reporting Standards (IFRS) and fully impair the book value of this asset, incurring a non-cash charge to earnings and reducing the carried value of Kinlytic to zero on Microbix's financial statements. Even though this asset has been written down, management intends to continue efforts to partner this asset and return the drug to the United States market for its catheter-clearance sub-indication.

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 long-term demand for antigens, implementation of innovative antigen production methods, the launch of new QAPs product lines, the commercialization of VTM, 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 \$41,894,010 as at September 30, 2020. 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 2021, 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.

To support the continued growth of the business, on January 30, 2020, the Company completed a non-brokered private placement offering of an aggregate of 11,800,000 units for total gross proceeds of \$2,360,000. Each unit consisted of one common share of Microbix and one common share purchase warrant. Each whole warrant entitles the holder to purchase one additional common share at an exercise price of \$0.36 for five years. The financing was non-brokered. Cash commissions of \$104,300 were paid and an aggregate of 521,500 Broker's Warrants were issued in the private placement offering. Each Broker's Warrant entitles the holder to purchase one common share at a price of \$0.36 for a period of five years. All securities issued under the private placement will be subject to a hold period expiring four months and one day from the date of closing.

## **LIQUIDITY, CASH FLOWS AND CAPITAL RESOURCES (Continued)**

### ***Future Liquidity and Capital Needs (Continued)***

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

### **Outstanding Share Capital**

Share capital issued and outstanding as at September 30, 2020 was \$35,357,144 for 108,772,705 common shares and September 30, 2019 was \$33,912,460 for 96,972,705 common shares.

### **Global Pandemic**

In early 2020, the coronavirus (“COVID-19”) was confirmed in multiple countries throughout the world and on March 11, 2020, the World Health Organization declared a global pandemic.

As a result of the continued and uncertain economic and business impact of the COVID-19 pandemic, the Company has reviewed the estimates, judgments and assumptions used in the preparation of its financial statements, including with respect to the determination of whether indicators of impairment exist for its tangible and intangible assets and the credit risk of its counterparties.

The extent to which COVID-19 and any other pandemic or public health crisis impacts the Company’s business, affairs, operations, financial condition, liquidity, availability of credit and results of operations will depend on future developments that are highly uncertain and cannot be predicted with any meaningful precision, including new information which may emerge concerning the severity of the COVID-19 virus and the actions required to continue to contain the COVID-19 virus or remedy its impact, among others.

Any of these developments, and others, could have a material adverse effect on the Company’s business, financial condition, operations and results of operations. In addition, because of the severity and global nature of the COVID-19 pandemic, it is possible that estimates in the Company’s financial statements will change in the near term and the effect of any such changes could be material, which could result in, among other things, impairment of long-lived assets or a change in the estimated credit losses on accounts receivable. The Company is constantly evaluating the situation and monitoring any impacts or potential impacts to its business.

See the “Risks and uncertainties” section of this MD&A for a further discussion of the COVID-19 pandemic.

### **OFF-BALANCE SHEET ARRANGEMENTS**

The Company has no off-balance sheet arrangements that have or are reasonably likely to have a current or future material effect on its financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

### **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 17, 2020.

### **RISKS AND UNCERTAINTIES**

The Company has exposure to credit risk, liquidity risk and market risk. The Company’s Board of Directors has the overall responsibility for the oversight of these risks and reviews the Company’s policies on an ongoing basis to ensure that these risks are appropriately managed, including through the use of financial instruments where appropriate. Further discussion of the management of such risks is included in note 20 to the audited consolidated financial statements for the year ended September 30, 2020.

## **RISKS AND UNCERTAINTIES (Continued)**

### **COVID-19 Pandemic**

As previously discussed, the Company's business may be negatively impacted by the COVID-19 pandemic, which has created, and continues to create, significant societal and economic disruptions. The changing and rapidly-evolving effects of the COVID-19 pandemic – the duration, extent and severity of which are currently unknown – on investors, businesses, the economy, government bodies, society and the financial markets could, among other things, add volatility to the global stock markets and change interest rate environments. The COVID-19 pandemic and measures to prevent its spread may negatively impact the Company, its customers, counterparties, employees, third-party service providers and other stakeholders, as applicable, in a number of ways, including, but not limited to, by: (i) adversely affecting the business operations of the Company, including the Company's planned sales and marketing processes for its approved products; (ii) disrupting the Company's supply chain, including the manufacture and/or delivery of its products to its customers and distributors on which the Company relies; (iii) adversely affecting local, national or international economies and employment levels; (iv) causing business interruptions, including as a result of steps taken by the Company in compliance with government recommendations and orders, such as requiring employee to work remotely, which may cause strain on such existing resources as information technology systems, and suspension of all non-essential travel; (v) disrupting public and private infrastructure, including communications and financial services, which could disrupt the Company's normal business operations; (vi) disrupting health care delivery; disrupting or prolonging business development initiatives such as the partnering of Kinlytic® urokinase. At this point, the extent to which the COVID-19 pandemic will or may impact the Company is uncertain and these factors are beyond the Company's control; however, any of these events, in isolation or in combination, could have a material adverse effect on the Company's business, results of operations and financial condition and the market price of the Company's securities. 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's 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's 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.

### ***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.

### **RISKS AND UNCERTAINTIES (Continued)**

#### ***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's 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 may have greater 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's 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 cash is held in accounts or short-term interest bearing accounts at one of the major Canadian chartered banks. Management perceives the credit risk to be low. Typically the outstanding trade receivable balance is relatively concentrated with a few large customers representing the majority of the value. As at September 30, 2020, five customers accounted for 83% (September 30, 2019 - five customers accounted for 78%) 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 (September 30, 2019 - \$25,625).

### 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, 2020, the significant balances, quoted in Canadian dollars, held in foreign currencies are:

	US dollars		Euros	
	2020	2019	2020	2019
Cash	\$ 15,397	\$ 88,820	\$ 1,551	\$ 5,223
Accounts receivable	1,186,876	797,352	273,858	591,454
Accounts payable and accrued liabilities	150,600	197,551	-	-

Based upon 2020 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 \$327,900 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 \$180,200.

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 \$327,900 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 \$180,200.

### 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%. As at September 30, 2020 the Company has not drawn on this line of credit. 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 interim condensed 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, 2020, 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.

## FINANCIAL INSTRUMENTS (Continued)

### 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 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, 2020.

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, 2020 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 2020

The Company has adopted new amendments to the following accounting standards effective for its interim and annual consolidated financial statements commencing October 1, 2019. The effect of these pronouncements on the Company’s results and operations are described below.

#### 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.

IFRS 16 – *Leases* supersedes IAS 17 – *Leases*, IFRIC 4 – *Determining whether an Arrangement contains a Lease*, SIC 15 – *Operating Leases - Incentives* and SIC 27 – *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for most leases under a single on-balance sheet model.

Lessor accounting is substantially unchanged from IAS 17. Lessors will continue to classify leases as either operating or finance leases using similar principles as in IAS 17. The Company is not currently a lessor.

The Company applied IFRS 16 using the modified retrospective approach. Accordingly, the comparative information presented for 2019 has not been restated. The lease liabilities were recorded as the present value of the remaining lease payments discounted at the Company’s incremental borrowing rate as at the date of application. The right-of-use assets were recorded at an amount equal to the lease liabilities, adjusted for any prepaid or accrued lease payments (nil).

**NEW ACCOUNTING PRONOUNCEMENTS ADOPTED IN FISCAL 2020 (Continued)**
**IFRS 16, Leases (“IFRS 16”) (Continued)**

The Company elected to use the practical expedient on transition allowing the standard to be applied only to contracts that were previously identified as leases under IAS 17 at the date of initial application. The Company also elected to use the recognition exemptions for lease contracts that, at the commencement date, have a lease term of 12 months or less and do not contain a purchase option (‘short-term leases’), and lease contracts for which the underlying asset is of low value (‘low-value assets’).

The Company did not change the initial carrying amounts of recognized assets and liabilities at the date of initial application for leases previously classified as finance leases (i.e., the right-of-use assets and lease liabilities equal the leased assets and liabilities recognized under IAS 17). The requirements of IFRS 16 was applied to these leases from October 1, 2019. The opening right-of-use assets includes \$319,321 that was previously recognized as a lease asset and the opening lease liability included \$249,527 that was previously recognized as a lease liability under IAS 17.

*Impact on the financial statements on transition*

On transition to IFRS 16 at October 1, 2019, the Company recognized right-of-use assets of \$763,541 and lease liabilities of \$693,747, respectively. There was no impact on retained earnings.

Lease liabilities for leases that were classified as operating leases at September 30, 2019 were discounted using the incremental borrowing rate at October 1, 2019. The weighted average rate applied was 3.7%.

Activity within right-of-use assets and lease liabilities during the period were as follows:

	Right-of-Use Assets		Lease Liabilities
	Property	Equipment	
Balance, October 1, 2019	\$ 419,843	\$ 343,698	\$ 693,747
Additions	-	6,695	6,695
Depreciation Expense	(74,088)	(47,600)	-
Interest Accretion	-	-	15,146
Payments	-	-	(173,649)
<b>Balance, September 30, 2020</b>	<b>\$ 345,755</b>	<b>\$ 302,793</b>	<b>\$ 541,939</b>

Right-of-use assets are included in property, plant and equipment on the statement of financial position.

**IFRS Interpretation Committee Interpretation 23, Uncertainty over Income Tax Treatments (“IFRIC 23”)**

IFRIC 23 was issued in June 2017 and is effective for years beginning on or after January 1, 2019 and was adopted by the Company effective October 1, 2019, to be applied retrospectively. IFRIC 23 provides guidance on applying the recognition and measurement requirements in IAS 12, Income Taxes, when there is uncertainty over income tax treatments including, but not limited to, whether uncertain tax treatments should be considered together or separately based on which approach better predicts resolution of the uncertainty. The adoption of this interpretation did not have a material impact on the consolidated financial statements.