

# BIOMARK DIAGNOSTICS INC.

## Form 51-102F1

### *Management's Discussion & Analysis*

### *Quarterly Report*

### *For the Quarter Ended September 30, 2018*

#### **1.1 Date of Report: November 23<sup>rd</sup>, 2018**

*The following management's discussion and analysis ("MD&A") should be read together with the condensed consolidated financial statements and accompanying notes for the quarter ended September 30, 2018, which are prepared in accordance with International Financial Reporting Standards ("IFRS"). All amounts are stated in Canadian dollars unless otherwise indicated.*

*This MD&A includes certain statements that may be deemed "forward-looking statements". Forward-looking statements are often, but not always, identified by the use of words such as "anticipate", "plan", "estimate", "expect", "may", "project", "predict", "potential", "could", "might", "should" and other similar expressions. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include market prices, continued availability of capital and financing and general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking statements.*

#### **1.2 Overall Performance**

BioMark Diagnostics Inc. was incorporated under the Business Corporation Act of British Columbia on June 19, 2014. The head office of the Company is 165-10551 Shellbridge Way, Richmond, British Columbia, V6X 2W8.

BioMark Diagnostics is developing proprietary, non-invasive, and accurate cancer diagnostic solutions to help detect, monitor, and assess treatment for cancer early and cost effectively. The platform technology is also designed to be used for measuring response to treatment and potentially for serial monitoring for cancer survivors. For more information please visit the company website at: [www.biomarkdiagnostics.com](http://www.biomarkdiagnostics.com)

Announcements and Highlights during the quarter:

- Management continues to raise capital through private placement, family funds and other strategic sources to support completion of clinical trials studies and commercialization of its core technology platform. Management has been working on numerous non-dilutive financing (grant

applications) with various government institutions across Canada and USA.

- BioMark obtained the first batch of samples from Cooperative Human Tissue Network (CHTN) that will be used in confirmation of its lung cancer metabolite panel to date over 120 samples have been received and samples are being stored in Manitoba. The goal is to obtain over 800 samples across North America so that a lab developed test can be prototyped for clinical application. CHTN is funded and supported by National Cancer Institute (NCI). In addition, BioMark has commenced discussions with a domestic certified lab service provider that will provide beta testing services for the test kits if both parties accept the terms of arrangement.
- Conducted and completed annual audit – Audited Financial Statement and MD&A filed in SEDAR and Canadian Securities Exchange as required by regulators in July.
- In July, BioMark was invited to present and discuss potential business development arrangement at Luzhou Talents Development Conference in Sichuan province of China.
- BioMark team continued discussions with the key Japanese medical/scientific group and signed an NDA with the leading Diagnostic lab and CRO for structuring a collaborative framework to commence clinical activities centred on gastric cancer. Progress will be announced when all parties have agreed with the terms and responsibilities.
- The biological samples of final follow up on the outliers in Bangladesh has been sent to BRI labs in Vancouver and sample analysis would be conducted in October 2018. Results from these studies will be used to support potential claims related to SSAT1 assay and regulatory submission.
- BioMark and Dr. Don Miller submitted a report on the outcome of clinical studies to NSERC. BioMark received NSERC Engage Grant for studies with Dr. Don Miller of University of Manitoba in Feb 2018. The focus of the studies was on understanding the role of SSAT1 (Spermine Spermidine Acetyl Transferase 1) and brain cancer.
- BioMark and The Metabolomics Innovation Centre (TMIC) have completed analyses on over 160 markers and the further discussion of the results, translational and commercialization objectives was held later September. BioMark has signed an NDA with a major lab service provider that will provide validation and beta testing of its lung cancer diagnostic kits once the kits are developed at TMIC following the large cohort validation studies.
- On September 10, 2018, BioMark's manuscript entitled "Spermidine/Spermine N1-Acetyltransferase-1 (SSAT-1) as a Diagnostic

Biomarker in Human Cancer" was been published in Future Science OA a peer reviewed publication. This acceptance provides confirmation that one of our technology platforms has an important clinical application in the cancer biomarker space. Additional articles are planned in subsequent quarters.

- BioMark met with the principal investigators, regulatory team and the biostatistician in Winnipeg to discuss the status of its application to Health Canada for its Amandatine assay. Additional data will be incorporated in the submission application.
- On September 19, 2018, BioMark was pleased to announce that it has appointed Dr. Pramjit Tappia to its scientific advisory team. Dr. Tappia's expertise in regulatory and clinical research brings depth and practicality as we begin to commercialize and position our technology for different oncology applications and potential linkages with other leading global institutions. – please review and edit it if needed.
- BioMark has been invited to present the utility of its SSAT1 (Spermine Spermidine Acetyl Transferase 1) technology platform in possibly assaying tumour activity in glioblastoma and potentially monitor response to treatment in glioblastoma at a major US institution in October 2018.

### **Risk Factors and Uncertainty**

The Company is focused on more select market introduction and development of all its product lines while instituting cost control of product development. The failure to generate future sales in the Company's main products could have a significant and adverse affect on the Company.

The Company is engaging in assay development, establishing new quantitative standards, conducting additional clinical research related to technology positioning and regulatory submissions. Negative clinical trials along with regulatory non-approval or delays could adversely affect sales, product commercialization and could have a major impact on the Company. Additionally, industry evolution and existing or new market entrants can impact the competitive position of BioMark. New detection and screening technologies in genomics, epigenetics, exosomes, and liquid biopsy incorporating big data can negatively impact BioMark commercialization efforts.

BioMark's success will depend in large measure on certain key personnel. The loss of the services of such key personnel could have a material adverse affect on the Company. The contributions of these individuals to the immediate operations of BioMark are of central importance. In addition, there can be no assurance that BioMark will be able to continue to attract and retain all personnel necessary for the development and operation of its business.

Management is continuing efforts to attract additional equity and capital investors and implement cost control measures to maintain adequate levels of working capital. Nevertheless, there can be no assurance provided with respect to the successful outcome of these ongoing actions. If the Company is unable to obtain additional financing on reasonable terms, the Company may be required to curtail or reduce its operations to continue as a going concern.

In addition, the Company's limited working capital could affect the Company's ability to seize upon opportunities requiring investment, or to reinvest in its technology platform in a timely manner.

### 1.3 Selected Quarter Information

The following information is a summary of the current quarter and year-to-date results including a comparison of financial performance to the corresponding previous year. The information is presented on the same basis as the consolidated financial statements and should be read in conjunction with the statements and accompanying notes.

	Sep 30, 2018	March 31, 2018	Sep 30, 2017
Total Expenses	\$ 160,558	\$ 726,747	\$ 218,422
Net Loss	160,558	726,747	218,422
Loss Per share	0.00	0.01	0.00
Total Assets	46,364	51,746	300,398
Distribution or Cash Dividends	None	None	None

### 1.4 Discussion of Operations

The Company generated no revenues for the quarter ended September 30, 2018 and has recorded a net loss of \$160,558. The net loss decreased by \$57,863 compared to the previous year of \$218,422. This was largely due to reduced share-based compensation from \$60,884 (2017) to \$960, the other expenses remained at similar level. Total assets decreased to \$46,364 for the quarter ended September 30, 2018 compared to \$51,746 reported on March 31, 2018, mainly due to the reduction of cash.

Consulting service fees decreased by \$12,864 compared to the prior year that were due to the reduced capital raise related service. Professional fees increased to \$31,952 for the quarter ended September 30, 2018 compared to \$21,073 for the previous year due to the increased consulting services rendered by auditor and legal / patent lawyers.

Research and other expense increased by \$1,905 due to additional work for publication and scientific research. The Company is expecting to increase investment spending associated with research, sample and data analysis, and regulatory submission in the coming quarters.

The Share-based compensation reduced by \$59,924 since there was reduction in services rendered by scientific advisors for their consulting services to support scientific and research work. The Company currently has no reported payroll and engages on the basis of consulting services as needed.

The office and miscellaneous slightly reduced by \$1,722 due to the existing rental agreement and prudent operation spending. Travel expenses during the period was \$4,523 compared to \$3,814 for the previous year, a slight increase of \$ 708.

### **Upcoming Potential Operational Objectives**

In the coming quarters, BioMark will continue to evolve its business operations to help further leverage its expertise in cancer detection, monitoring and assessment. Some key business objectives initiatives include:

- Actively raise capital especially with institutional, family funds and strategic investors
- Revise and submit a full application to Health Canada for diagnostic application of its SSAT1 initially using LCMS. All the necessary recommended follow up studies and publications all point to the merits of the supporting science. The LCMS is the industry gold reference standard, hence to gain recognition the company is focusing on this analytical methodology; See notes below on activities related to our clinical trials.
- Revalidate and advance the clinical commercialization of its customized fingerprint assay with The Metabolomics Innovation Centre (TMIC) and authorized lab service company for lung cancer based on a larger cohort. A larger cohort of samples with an emphasis on earlier stage lung cancer samples will be sourced through registered bio depository centres across America and analyzed at partner labs after the kits are optimized at TMIC. In addition, the company will enhance its supporting software as needed for the assay through services rendered at TMIC and other machine learning institutes. The company anticipates the completion of the sample validation once all the samples are received and analyzed from the bio repository centres.

- Continue to research and develop better quantification technologies or methods that will enhance the signal detection and reduce overall costs associated with sample collection and preparation. The company's goal is to lower cost detection costs associated with our platform;
- Conduct and appropriately register the clinical trials which include measuring response to radiation and chemotherapy and surgical intervention for lung cancer and glioblastoma;
- Developing stronger industry collaborations both locally and internationally;
- Continue to publish in leading journals to highlights its discoveries
- Seek strong industrial partners to engage in co-development projects
- Apply for appropriate government grants with partner institutions

## 1.5 Summary of Quarterly Results

The following information is a summary of the Company's financial results for the eight most recently completed quarters.

	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017
	\$	\$	\$	\$
Total Revenue	-	-	-	-
Expenses	160,588	110,911	147,536	176,375
Net Loss	(160,588)	(110,911)	(147,536)	(176,375)
Loss per Share	(0.00)	(0.00)	(0.002)	(0.003)

	September 30, 2017	June 30, 2017	March 31, 2017	December 31, 2016
	\$	\$	\$	\$
Total Revenue	-	-	5,582	-
Expenses	218,422	184,414	243,409	111,757
Net Loss	(218,422)	(184,414)	(237,827)	(111,757)
Loss per Share	(0.004)	(0.003)	(0.004)	(0.002)

## 1.6 Liquidity

The Company has total assets of \$46,364 as at September 30, 2018 consisting of cash and amounts receivable and has a negative working capital of \$1,009,408.

At September 30, 2018, the Company had cash and cash equivalents of \$32,227 (September 30, 2017 – \$283,752) and working capital deficit increased by \$380,547 from September 30, 2017 (\$628,861) due to the decrease of assets during the year. Working capital is defined as current assets less current liabilities. Total liabilities increased by \$124,873 from September 30, 2017 (\$929,259) which are largely due to the increase of account due to related parties. Cash and cash equivalents decreased by \$251,525 and is attributed to the decrease in capital raise.

At September 30, 2018, share capital was \$4,086,774 comprising 62,794,119 issued and outstanding common Shares (September 30, 2017 – \$4,096,415 comprising 63,127,453 issued and outstanding common Shares) and Contributed Surplus at September 30, 2018 is \$700,357 (September 30, 2017 – \$686,342). As a result of the net loss for the quarter ending September 30, 2018 of \$271,470 (September 30, 2017 – \$402,836) the deficit at September 30, 2018 increased to \$6,006,999 from \$ 5,411,618 as at September 30, 2017.

At present, the Company's operations do not generate cash inflows and its financial success after September 30, 2018 is dependent on management's ability to continue to obtain sufficient funding to sustain operations through the development stage and successfully bringing the Company's technologies to the point that they may be out licensed or tests sold post commercialization to labs. Clinical research and development process can take many years and is subject to factors that are beyond the Company's control.

In order to finance the Company's future research and development and to cover administrative and overhead expenses in the coming years the Company may raise money through equity sales or debt instruments. Many factors influence the Company's ability to raise funds, including the Company's record of accomplishment, and the experience and caliber of its management. Actual funding requirements may vary from those planned due to various factors, including the progress of research activities and achievement of critical milestones. Management believes it will be able to raise equity capital as required in the long term but recognizes there will be risks involved that may be beyond their control. Should those risks fully materialize, it may not be able to raise adequate funds to continue its operations.

Since the Company will not be able to generate cash from its operations in the foreseeable future, the Company will have to rely on funding through future equity issuances and through short term borrowing in order to finance ongoing operations. The ability of the Company to raise capital will depend on market conditions and it may not be possible for the Company to issue shares on acceptable terms or at all.

### **1.7 Capital Resources**

The Company does not have any other commitments for material capital expenditures. The Company is not a party to any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future material effect on the Company's financial condition, changes in financial condition, revenues, expenses, results of operations, liquidity, capital expenditures or capital resources.

### **1.8 Off-Balance Sheet Arrangements**

There is no off-balance sheet arrangements to which the Company is committed.

### **1.9 Transactions Between Related Parties**

During the quarter ended September 30, 2018, the Company entered into the following transactions with related parties:

- a) For the quarter ended September 30, 2018, directors and officers of the company provided consulting services to the company of \$82,500. These charges are included in consulting fees. Consulting fees from the CEO was \$60,000 and the Interim CFO also performing duties as the Project Director was \$22,500 for the quarter ended September 30, 2018. As at September 30, 2018, the Company has \$605,946 and \$126,270 due to the Chief Executive ("CEO") and the Interim Chief Financial Officer respectively (2017 - \$429,954 and nil respectively). The balances due to related parties are unsecured, non-interest bearing and without fixed repayment terms.
- b) For the quarter ended September 30, 2018, the Company recognized \$960 of share-based compensation for stock options held by director and officers. This amount is included in share-based compensation expense.
- c) On May 14, 2014, the Company entered a General Service Agreement (the "Service Agreement") with BioMark Technologies Inc., Both Biomark Diagnostics and BioMark Technologies are managed by the CEO of the Company. According to the Service Agreement, the Company engaged Biomark Technologies to provide important services that include continuation of research and development, establishing a framework quality management system, IP refinement and filing, establish protocols



with key investigators, linking platforms that BioMark Diagnostics can leverage, engage in territorial business development from relationships that Biomark Technologies developed over the years, supplier validation and review, operating capital and other related functions (the “Services”). Biomark Technologies uses subcontractors to perform some of its services. The Company will pay management fees equivalent to cost plus a 25% administration fee to Biomark Technologies and payable upon completion of the Services. For the quarter ended September 30, 2018, the Company paid \$nil to Biomark Technologies as administration fees (2017 - \$892). BTI holds approximately 65.30% of the common shares of the Company as at September 30, 2018 (2017 – 65%). The CEO owns more than 10% interest in the Company. The term of this Agreement will remain in full force and effect indefinitely until terminated as provided in the Agreement. In the event that either party wishes to terminate this Agreement, that each party will be required to provide 30 days' notice to the other party.

- d) On May 14, 2014, the Company entered into an Independent Contractor Agreement (the “Agreement”) with the CEO of the Company. According to the Agreement, the CEO will provide consulting services to the Company for one year with a compensation of \$240,000 per year plus benefits. In addition, the CEO will be paid a cash bonus equivalent to 30% of the annual salary at the end of each year if the trading price of the Company shares increased by more than 30% from the trading price at the beginning of the year. For the purpose of this calculation, the starting trading price is \$0.25 per share. The CEO will also be granted stock options for 1,000,000 shares at a price of \$0.25 per share (granted). Finally, if the Company’s market capitalization exceeds \$200 million USD, the CEO will be paid an additional cash bonus of \$500,000. The terms of the CEO agreement are on year to year basis unless terminated accordance to the terms and conditions set forth in the agreement. According to the Agreement, the Company engaged CEO service to provide important services that include develop and direct the corporate strategy, resource allocation, review acquisitions or partnerships, drive or generate revenue growth, hire, and retain staff as necessary, support in capital raise rounds, manage past relationships and build business and collaborations.

**1.10 Fourth Quarter**

N/A

**1.11 Proposed Transactions**

N/A

## 1.12 Critical Accounting Estimates

The preparation of the consolidated financial statements in accordance with IFRS requires the Company to make estimates and assumptions concerning the future. The Company's management reviews these estimates and underlying assumptions on an ongoing basis, based on experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Revisions to estimates are adjusted for prospectively in the period in which the estimates are revised. However, actual outcomes can differ from these estimates. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. The more significant areas are as follows:

- the estimates and assumptions used in the share-based payments;
- the fair value measurements for financial instruments; and
- value of warrants in private placement.

The Company also made judgments, apart from those involving estimates, in applying accounting policies. Actual results may differ from these estimates. Significant areas where management's judgment has been applied include:

- Classifying categories of financial assets and financial liabilities in accordance with IAS 39, Financial instruments: recognition and measurement;
- Evaluating if the criteria for recognition of provisions and contingencies are met in accordance with IAS 37, Provisions, contingent liabilities and contingent assets; and
- The assessment of the Company's ability to continue as a going concern.

## 1.13 Changes in Accounting Policies including Initial Adoption

During the year ended March 31, 2018, the Company did not adopt any new accounting standards and interpretations.

### *New accounting standards issued but not yet effective*

Certain new standards, interpretations, amendments, and improvements to existing standards were issued by the IASB or IFRIC that are mandatory for future accounting periods. The following have not yet been adopted by the Company and are being evaluated to determine their impact.

- IFRS 9: New standard that replaced IAS 39 for classification and measurement, tentatively effective for annual periods beginning on or after January 1, 2018.
- IFRS 15: New standard to establish principles for reporting the nature, amount, timing, and uncertainty of revenue and cash flows arising from an

entity's contracts with customers, effective for annual periods beginning on or after January 1, 2018.

- IFRS 16: Leases: New standard to establish principles for recognition, measurement, presentation, and disclosure of leases with an impact on lessee accounting, effective for annual periods beginning on or after January 1, 2019.

## **1.14 Financial Instruments and Other Instruments**

### Fair values

The Company's financial instruments include cash, accounts payable and due to related parties. The carrying amounts of these financial instruments are a reasonable estimate of their fair values because of their current nature.

The Company classifies its fair value measurements in accordance with an established hierarchy that prioritizes the inputs in valuation techniques used to measure fair value as follows:

Level 1 – Unadjusted quoted prices in active markets for identical assets or liabilities;

Level 2 – Inputs other than quoted prices that are observable for the asset or liability either directly (i.e. as prices) or indirectly (i.e. derived from prices); and

Level 3 – Inputs that are not based on observable market data.

### Credit risk

The Company is not exposed to credit risk.

### Interest rate risk

Interest rate risk is the risk the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Financial assets and liabilities with variable interest rates expose the Company to cash flow interest rate risk. The Company does not hold any financial liabilities with variable interest rates. The Company does maintain bank accounts which earn interest at variable rates, but it does not believe it is currently subject to any significant interest rate risk.

### Liquidity risk

The Company's ability to continue as a going concern is dependent on management's ability to raise required funding through future equity issuances and through short-term borrowing. The Company manages its liquidity risk by forecasting cash flows from operations and anticipating any investing and financing activities. Management and the Board of Directors are actively involved in the review, planning and approval of significant expenditures and commitments.

The Company intends to meet its current obligations in the following year with funds to be raised through private placements, shares for debt, loans and related party loans.

### **1.15 Other MD&A Requirements**

(a) More information about the Company is on SEDAR at [www.sedar.com](http://www.sedar.com).

(b) Information required in the following sections of National Instrument 51-102, if applicable:

(i) Section 5.3 – Additional Disclosure for Venture Issuers without Significant Revenue;

An analysis of material components of the Company's general and administrative expenses is disclosed in the Statement of Comprehensive Loss forming part of the Financial Statements for the period ended September 30, 2018 to which this MD&A relates.

(ii) Section 5.4 – Disclosure of Outstanding Share Data; and

a. Authorized:

Unlimited common shares without par value

b. Common Shares Issued:

As at September 30, 2018, the Company had 62,794,119 common shares issued and outstanding.

c. Share Purchase Warrants

As at September 30, 2018, the Company had 4,351,455 shareholder warrants issued and outstanding. Each warrant will entitle the holder to acquire one share at a price of \$0.15 per share for a period of two years after its Closing Date. The Company uses the residual value method to allocate proceeds of the unit amongst the common share and the share purchase warrant.

d. Stock options:

The Company has reserved 4,675,000 common shares under its Existing Plan. The plan provides for the granting of options to directors, employees, and consultants. Stock options granted generally have varying expiry terms of up to five years and vesting periods determined at the discretion of the directors.

The number of options exercisable as at September 30, 2018 was 4,125,000. The weighted average life remaining for these options was 1.36 years and weighted average exercise price was \$0.23 per option.

(iii) Section 5.7 – Additional Disclosure for Reporting Issuers with Significant Equity Investees.

Not Applicable.

(c) Disclosure required by National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* and, as applicable, Form 52-109F1 *Certification of Annual Filings – Full Certificate*, Form 52-109F1R *Certification of Refiled Annual Filings*, or Form 52-109F1 *AIF Certification of Annual Filings in Connection with Voluntarily Filed AIF*.

Form 52-109FV2 *Certification of Interim Filings* is filed on SEDAR.