# BIOMARK DIAGNOSTICS INC.

# Form 51-102F1 Management's Discussion & Analysis Quarterly Report For the Quarter Ended December 31, 2017

### 1.1 Date of Report: February 28, 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 December 31, 2017, 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

Announcements and Highlights during the quarter:

 Management continues to raise capital through private placement and other sources to support completion of clinical trials studies and commercialization of its core technology platform. Management has been

- actively working on numerous non-dilutive financing with various government institutions across Canada.
- On October 25th, 2017, BioMark announced that its patent titled "A METHOD FOR ASSAYING THE ACTIVITY OF SPERMIDINE/SPERMINE N1-ACETYLTRASFERASE" has been prosecuted to allowance and issued in China.
- BioMark submitted the application for Collaborative Research and Development Grants Project (CRDPJ) entitled "Analysis of exogenous metabolites for early cancer diagnosis" with Dr. David Chen at University of British Columbia under Natural Sciences and Engineering Research Council of Canada (NSERC). Input from NSERC suggested that BioMark along with Dr. Chen should solicit another industrial partner that has an existing lab facility to be fully eligible for review and funding. Both Dr. Chen and BioMark have identified a probable partner and an updated application for CRD (see below) grant application will be submitted to NSERC in early 2018.
- BioMark working closely with TMIC (The Metabolomics Innovation Centre) to complete the final submission of a comprehensive application for Genome Canada's LSARP (Large Scale Applied Research Program) program in October 2017. BioMark is a key commercialization partner in this proposal.
- On November 1, 2017, BioMark provided the latest clinical trial and research update.
- On November 22, 2017, BioMark Diagnostics Inc. held its Annual General Meeting at 11th Floor 1050 West Pender St., Vancouver, BC V6E 3S7 on Wednesday, at 11:00 a.m. (Vancouver Time).
- On November 27, 2017, Interim Financial Statement and MD&A were filed in SEDAR and Canadian Securities Exchange as required by regulators.
- On November 28, 2017, Going Global Innovation Program offered by Global Affairs Canada tentatively approved BioMark's application to follow up with potential Japanese organizations on further discussion and arrangement for site visit.
- BioMark shipped a large lung cancer cohort samples to TMIC for analysis.
   TMIC will utilize the customized assays that it developed for BioMark to re-validate the samples. This study is being conducted under Dr. Maksymuik of CancerCare Manitoba and Saint Boniface Research Centre in Manitoba. Samples analyses are scheduled for January with preliminary data available by end of February 2018. There were a few weeks delay due to instrument downtime at TMIC.
- On December 5th, 2017, BioMark announced that Dr. Ian Smith has been elected to become a board director of the company.

- On December 19th, 2017, BioMark announced that the Canadian Government's established Going Global International (GGI) program has generously approved its second application to further engage with top tier Japanese institutions following its successful initial visit in June 2017. Based on continued favourable dialogue with established Japanese institutions BioMark has been invited back to Japan in the next 3 months.
- Clinical trial samples from Bangledesh have been run at BRI and BioMark awaits results that will been sent to SBRC for biostatician and Drs. Maksymuik / Sitar / Ramjiawan / Tappia to review and commence submission to Health Canada.
- BioMark is waiting decision for NSERC Engage Grant application to be rendered in January 2018 for studies with Dr. Don Miller from University of Manitoba on understanding the role of SSAT1 (Spermine Spermidine Acetyl Transferase 1) and brain cancer.
- A new provisional patent related to lung cancer has been drafted and is to be filed in early part of 2018.

# **About Going Global Innovation Program**

The Going Global Innovation (GGI) program is specifically designed to promote and enhance Canada's international innovation efforts. The program supports researchers who aim to commercialize technology by pursuing collaborative international research and development (R&D) opportunities through partnerships with key players in foreign markets.

# **About CRD**

The Collaborative Research and Development (CRD) Grants are intended to give companies that operate from a Canadian base access to the unique knowledge, expertise, and educational resources available at Canadian postsecondary institutions and to train students in essential technical skills required by industry. The mutually beneficial collaborations are expected to result in industrial and/or economic benefits to Canada.

### **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 prototype/assay development, establishing new quantitative standards, conducting additional clinical research related to technology positioning, protocol development 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-todate 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.

	December 31,	Marc 31,	December 31,
	2017	2017	2016
	\$	\$	\$
Total Expenses	176,375	721,006	111,757
Net Loss	176,375	715,424	111,757
Loss Per share	0.00	0.01	0.002
Total Assets	147,378	39,572	14,160
Distribution or Cash Dividends	None	None	None

### 1.4 Discussion of Operations

The Company generated no revenues for the quarter ended December 31, 2017 and has recorded a net loss of \$176,375. The net loss increased by \$64,618 compared to the previous year of \$111,757. This was due to increased consulting and professional fees, research costs, travel for the business development and share-based compensation. Total assets increased to \$147,378 for the quarter ended December 31, 2017 compared to \$39,572 reported on March 31, 2017. This capital increase is attributed to the cumulative closing of financing as reported on June 29, 2017 and September 20, 2017. The Company continues to build its patent portfolio and advancing its patent registration in different jurisdictions, which explains the significant legal fee, research, and consulting and professional fees in 2017. These investments are important intangible assets for a biotechnology company, but the value is not reported in the current balance sheet.

Consulting and professional service fees increased by \$45,880 compared to the prior year due to increased research projects and business development activities. The Company also contracted external consulting service to update the website in order to demonstrate the value of BioMark.

Research and other expense increased by \$9,684 which is related to costs incurred with the continuous follow up clinical trials conducted in Bangladesh and followed sample analysis and data tabulation. The Company is expecting a modest increase in costs associated with research, patent filing and execution, payables and other operating expenses in the next quarter.

The Share-based compensation increased by \$6,275, mainly due to services rendered by scientific advisors for their consulting services to support scientific and research work and the fair value of the vested options issued for the consultants. The Company currently has no reported payroll and engages on the basis of consulting services as needed.

The office and miscellaneous slightly decreased by \$1,423 compared to the previous year which was mainly for office hardware and software upgrade. The Travel cost increased by \$1,699 due to increased business activities to meet with potential investors for capital raise.

### **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:

 Raise capital especially in the institutional market and potential strategic investors

- Complete its Bangladesh and Canadian trial and submit an application to Health Canada for diagnostic application of its ABA assay initially using LCMS. The LCMS is the industry gold reference standard, hence to gain recognition the company is focusing on this analytical methodology. The company has engaged BRI to conduct analysis on both the outlier population and a new healthy cohort group. This is anticipated to be completed by year end 2017.
- Continue to research technologies or methods that will enhance the signal detection and reduce overall costs associated with sample collection and preparation with a goal to lower detection costs associated with our platform;
- Developing stronger industry collaborations both locally and internationally;
- Apply for appropriate government grants with partner institution

# 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.

	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017
	\$	\$	\$	\$
Total Revenue	-	-	5,654	5,582
Expenses	176,375	218,422	190,068	243,409
Net Loss	(176,375)	(218,422)	(184,414)	(237,827)
Loss per Share	(0.00)	(0.004)	(0.004)	(0.004)

	December 31,	September 30,	June 30,	March 31,
	2016	2016	2016	2016
	\$	\$	\$	\$
Total Revenue	-	-	-	-
Expenses	111,757	150,306	215,534	700,749
Net Loss	(111,757)	(150,306)	(215,534)	(696,339)
Loss per Share	(0.002)	(0.003)	(0.004)	(0.014)

# 1.6 Liquidity

The Company has total assets of \$147,378 as at December 31, 2017 consisting of cash and amounts receivable and has a negative working capital of \$798,962.

At December 31, 2017, the Company had cash and cash equivalents of \$122,399 (December 2016 – \$2,065) and working capital deficit decreased by \$38,037 from December 31, 2016 (\$836,999) due to an increase of assets during the year 2017. Working capital is defined as current assets less current liabilities. Total liabilities increased by \$95,181 from December 31, 2016 (\$851,159) which are largely due to accrual of consulting fee. Cash and cash equivalents increased by \$120,334 due to shares issued for the private placement on June 29, 2017 and September 20, 2017.

Cash utilized in operating activities during the quarter ended December 31, 2017 was \$605,559 (December 31, 2016 – \$406,751). This difference between December 31, 2017 and December 31, 2016 was an increase in items not affecting cash which includes Consulting services paid in shares for scientific advisors and Share-based compensation for consultants.

At December 31, 2017, share capital was \$4,096,415 comprising 62,794,120 issued and outstanding common Shares (December 31, 2016 – \$3,279,797 comprising 54,436,543 issued and outstanding common Shares). Contributed Surplus at December 31, 2017 is \$686,342 (December 31, 2016 – \$613,268) the increase is the result of the share-based payments recognized for the year.

As a result of the net loss for the quarter ending December 31, 2017 of \$579,212 (December 31, 2016 - \$477,597) the deficit at December 31, 2017 increased to \$5,411,618 from \$4,770,955 as at December 31, 2016.

At present, the Company's operations do not generate cash inflows and its financial success after September 30, 2017 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 December 31, 2017, the Company entered into the following transactions with related parties:

- a) For the quarter ended December 31, 2017, 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 December 31, 2017. As at December 31, 2017, amount owing to the CEO was \$470,910, former CFO was \$27,615, and Interim CFO \$126,433, which was largely recorded as account payable.
- b) For the quarter ended December 31, 2017, the Company granted 1,400,000 stock options to directors, officers, consultants, and employees on September 15, 2017. Stock options granted to a consultant (300,000) can be exercised at \$0.15 per share until September 15, 2018. Stock options granted to directors, officers, and consultants (1,100,000 options) vest at 25% at the date of grant and 25% every six months thereafter. These stock options can be exercised at \$0.15 per share for a period of three years. The fair value of

the vested options is \$25,158.

- 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 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 December 31, 2017, the Company paid \$1,187 to Biomark Technologies as administration fees (2016 - \$42,578). BTI holds approximately 65% of the common shares of the Company as at December 31, 2017 (2016 – 75%). 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, 2017, 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 date.

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.
- (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 December 31, 2017 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 December 31, 2017, the Company had 62,794,120 common shares issued and outstanding.

**Share Purchase Warrants** 

As at December 31, 2017, the Company had 4,135,455 shareholder warrants issued and outstanding. On September 20, 2017, the Company closed a non-brokered private placement of

1,873,000 units at \$0.10 per unit for a total consideration of \$187,300. Each unit consists of one common share of the Issuer and one-half of one share purchase warrant. Each warrant will entitle the holder to acquire one share at a price of \$0.15 per share for a period of two year. The Company uses the residual value method to allocate proceeds of the unit amongst the common share and the share purchase warrant.

### c. Stock options:

The Company has reserved 4,490,000 common shares under its 2014 Stock Option 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 Company's current stock option plan (the "Existing Plan") was last approved by the shareholders on September 17, 2015. Pursuant to the Existing Plan, the maximum number of common shares of the Company which may be authorized for reservation for the grant of options from time to time shall be 20% of the Company's then issued and outstanding common shares.

The Company granted 1,400,000 stock options to directors, officers, consultants, and employees on September 15, 2017. Stock options granted to a consultant (300,000) can be exercised at \$0.15 per share until September 15, 2018. Stock options granted to directors, officers, and consultants (1,100,000 options) vest at 25% at the date of grant and 25% every six months thereafter. These stock options can be exercised at \$0.15 per share for a period of three years. The fair value of the vested options is \$25,158.

The number of options exercisable as at December 31, 2017 was 4,645,000. The weighted average life remaining for these options was 2.18 years and weighted average exercise price was \$0.22 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.