



Management's Discussion and Analysis

## **3D Signatures Inc.**

For the three months ended September 30, 2018

## MANAGEMENT'S DISCUSSION AND ANALYSIS

For the three months ended September 30, 2018

*This management's discussion and analysis ("MD&A") of 3D Signatures Inc. (the "Company" or "3DS") for the three months ended September 30, 2018 prepared on November 28, 2018. This MD&A was prepared with reference to National Instrument 51-102 "Continuous Disclosure Obligations" of the Canadian Securities Administrators. This MD&A should be read in conjunction with the audited consolidated financial statements for the year ended June 30, 2018 and the related note, in addition to the interim September 30, 2018 financial statements and related notes, which have been prepared by management in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Financial Accounting Standards Board ("IASB"). Additional information regarding the Company is available on SEDAR at [www.sedar.com](http://www.sedar.com) and on the Company's website at [www.3Dsignatures.com](http://www.3Dsignatures.com). All amounts are expressed in Canadian dollars.*

### CAUTION REGARDING FORWARD-LOOKING STATEMENTS AND RISK FACTORS

Certain statements and information in this MD&A contain forward-looking statements or forward-looking information under applicable Canadian securities legislation that may not be based on historical fact, including, without limitation, statements containing the words "believe", "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "predict", "project", "potential", "ongoing", "could", "would", "seek", "target" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words and similar expressions.

Forward-looking statements are necessarily based on estimates and assumptions made by us in light of our experience and perception of historical trends, current conditions and expected future developments, as well as factors that we believe are appropriate. Forward-looking statements in this MD&A include, but are not limited to, statements relating to:

- the initiation, timing, cost, progress and success of our research and development programs;
- our ability to advance product candidates into, and successfully complete, clinical studies;
- the timing of, our decision to seek, and our ability to achieve regulatory approval for our current and future diagnostic and prognostic tests (the "Tests") being developed;
- our ability to achieve profitability;
- the Company's ability to establish and maintain relationships with collaborators with acceptable development, regulatory and commercialization expertise, and the benefits to be derived from such collaborative efforts;
- the implementation of our business model and strategic plans;
- our estimates of the size of the potential markets for our Tests;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- the therapeutic benefits, effectiveness and safety of our Tests;
- the rate and degree of the market acceptance and clinical utility of our future products, if any;



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- our expectations regarding market risk, including interest rate changes and foreign currency fluctuations;
- the release of the provision against the value of the intangible assets;
- our expectations that clinical results will be detailed and published in peer-reviewed papers and journals;
- our ability to engage and retain the employees required to grow our business; and
- estimates of our expenses, future revenue, capital requirements and our need for additional financing.

Such forward-looking statements reflect our current views with respect to future events, are subject to risks and uncertainties and are necessarily based upon a number of estimates and assumptions that, while considered reasonable by 3DS as of the date of such statements, are inherently subject to significant medical, scientific, business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause our actual results, performance, achievements, prospects or opportunities to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements. In making the forward-looking statements included in this MD&A, the Company has made various material assumptions, including, but not limited to: (i) obtaining positive results from the Company's clinical studies; (ii) obtaining regulatory approvals for the Company's Tests; (iii) assumptions regarding general business and economic conditions; (iv) the Company's ability to successfully develop the Tests; (v) that our current positive relationships with third parties will be maintained; (vi) the availability of financing on reasonable terms; (vii) the Company's ability to attract and retain skilled staff; (viii) assumptions regarding market competition; (ix) the products and technology offered by the Company's competitors; and (x) the Company's ability to protect patents and proprietary rights.

In evaluating forward-looking statements, current and prospective shareholders should specifically consider various factors, including the risks outlined in this MD&A under the heading "*Risks and Uncertainties*". Should one or more of these risks or uncertainties, or a risk that is not currently known to us, materialize, or should assumptions underlying the forward-looking statements contained herein prove incorrect, actual results may vary materially from those described herein. All forward-looking statements herein are made as of the date of this MD&A and we do not intend, and do not assume any obligation, to update these forward-looking statements except as required by applicable securities laws. Investors are cautioned that forward-looking statements are not guarantees of future performance and are inherently uncertain. Accordingly, investors are cautioned not to put undue reliance on forward-looking statements.

### OVERVIEW OF THE COMPANY

3DS is a personalized medicine company with a proprietary software platform designed to predict the course of certain diseases and to tailor treatment options for the individual patient. The technology is based on the three-dimensional analysis of telomeres, the protective caps at the ends of chromosomes (the "**Telomere Technology**"). 3DS' TeloView™ software platform measures the organization of the genome and its correspondence to; the stage of a given disease, the rate of progression of the disease, how different diseases will respond to various therapies, and a drug's efficacy and toxicity. 3DS' proprietary imaging software is designed to go beyond identifying whether a patient suffers from a specific disease or condition. Instead, the TeloView™ platform is designed to inform clinicians and patients with respect to how to personalize treatment and best manage an individual's disease based on their unique TeloView Score™. As healthcare moves increasingly toward better informed, patient-centric approaches, the Company intends for the TeloView™ platform to deliver personalized medicine that allows for better treatments, leading to better outcomes.



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The TeloView™ platform is supported by 25 clinical studies involving more than 3,000 patients and 20 different cancers, plus Alzheimer's disease. 3DS benefits from twenty years of research, \$25M of non-dilutive investment into its platform and more than 130 supporting publications, and holds a portfolio of patents related to three-dimensional telomere analysis for proliferative diseases, including (but not limited to) hematological disorders such as Hodgkin's lymphoma, multiple myeloma, and chronic myeloid leukemia. Our intellectual property portfolio also covers prostate cancer, breast cancer, lung cancer, melanoma, colorectal cancer, and Alzheimer disease. See below for details on the Company's intellectual property.

3DS believes that it is well positioned in the market for three-dimensional analysis of telomere organization and developing a new class of biomarker for evaluating an individual patient's genome using its proprietary TeloView™ platform. The Company's TeloView™ analysis goes beyond other two-dimensional telomere measurements as a result of its incorporation of the multi-modal and structural parameters of a genome's content and configuration, which are identified and factored into 3DS' TeloView Score™. The Company believes that this is a novel approach in developing a structural biomarker in the diagnostic, prognostic, monitoring and theranostic markets. The TeloView Score™ for each Test is based on a combination of 6 parameters generated by an analysis of individual cells following treatment with a combination of immuno-fluorescence in situ hybridization (FISH) protocol and multi-channel 3D immunofluorescence microscopy. The TeloView™ parameters that contribute to assessing the patient's three-dimensional genome status include individual cell and cell population combinations of: telomere number, telomere intensity/length, diameter and volume of the nucleus, relative nuclear position of telomeres, telomere aggregation, and compression of telomeric space. Different combinations of these parameters have proven to be accurate and predictive of a patient's disease status and outcome, potentially making three-dimensional telomere analysis a universal biomarker.

3DS has assembled a team with successful track records in the development and commercialization of biomedical products. The Company intends to advance the development and application of TeloView™ across major inflection points in the lifecycle of the laboratory testing industry. The Company is evaluating making its Tests available to patients and their healthcare providers through research collaborations and/or as Laboratory Developed Tests ("LDTs") with commercial partners in key markets around the world. The Company also intends to expand the range of its test portfolio through ongoing research and development. The Company also intends to continuously improve the efficiencies and scaling of its laboratory procedures for capturing, treating, and imaging samples of interest through a combination of adoption and further adaptation of automated software and hardware platforms (including digital pathology workflows). In the future, the Company will assess the integration of machine learning and artificial intelligence tools that help identify the optimal cells for analysis, and that compare clinical data to TeloView™ analysis to expand the repertoire of significant parameters to be included in future TeloView Scores™.

3DS has a balanced market entrance strategy of developing Tests and commercializing its TeloView™ platform to generate near-term revenue and a longer-term strategy to possibly seek in-vitro diagnostic device approval from Health Canada, the Food and Drug Administration (the "FDA") in the U.S. and European regulators. In addition to this pursuit and based on the research work of 3DS' co-founder, Dr. Sabine Mai, and other collaborators, with a biopharmaceutical company in 2016, 3DS believes that there are opportunities to partner with biopharmaceuticals companies in research and development trials of drug candidates through the incorporation of 3DS' three-dimensional telomere analysis and proprietary software in such trials. The company is seeking to engage large biopharmaceutical companies in collaborations geared towards improving their drug-screening capabilities and developing companion diagnostics that identify or monitor appropriate patients for a given therapeutic based on 3DS' platform Tests. 3DS continues to actively pursue such arrangements with biopharmaceuticals companies to potentially diversify future revenue streams and to provide incremental opportunities to develop the Tests into companion diagnostics.



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3DS' registered and records office is located at 199 Bay Street, Suite 4000, Commerce Court West, Toronto, Ontario, M5L 1A9, and its corporate head office is located at MaRS Centre, South Tower, 101 College Street, Suite 200, Toronto, Ontario M5G 1L7.

### **CURRENT CORPORATE DEVELOPMENTS AND GOING CONCERN**

On May 31, 2018, the Company announced its intention to file for bankruptcy as a result of the uncertainty surrounding the availability of sufficient capital to complete the commercialization and realization of the intangible assets, the Company has recorded a provision against the value of the intangibles and property and equipment (Note 8). Should the underlying circumstances change, the Company may release this provision in the future. During the current reporting period September 30, 2018, the Company restructured its Board of Directors and management and will not be proceeding with the bankruptcy proceedings. Management will continue with capital raising to funds development of its intangible assets.

### **QUARTERLY PERFORMANCE**

The Company recorded a net loss of \$579,257 (\$0.01 per Common Share) in the current year compared with \$1,066,244 net loss (\$0.02 per Common Share) during the prior comparable year.

Factors contributing to the decreased net loss comprised a decrease in media expenses and professional fees & consulting expenses as a result of the amortization of prepaid service contracts. A decrease in stock-based compensation expense, a non-recurring listing cost expense in the prior year, also contributed to the decrease in net loss. Such decreases were offset by increases in laboratory costs associated with the Company's ongoing Telo-HL™ clinical study, sponsorships related to the Company's research activities of multiple myeloma and prostate cancer, and increases in salaries, wages and benefits as a result of an increased headcount supporting the Company's ongoing clinical studies.

The Company incurred research and development costs of \$71,143 during the period ended September 30, 2018 compared to a \$369,485 and development costs in the prior year. The Company is current reevaluating its working capital position and additional research and development expenditures have been delayed for the time being. A significant decreased in these costs is expected for the coming quarters.

The Company incurred general and administrative costs of \$507,114 during the period ended September 30, 2018 compared to \$698,800 in the prior period. Similar to research and development costs, the Company is currently reevaluating its working capital position and additional research and development expenditures have been delayed for the time being. A significant decreased in these costs is expected for the coming quarters.



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### SELECTED ANNUAL FINANCIAL INFORMATION

For the year ended June 30	2018	2017	2016
	\$	\$	\$
Net loss for the year	(4,694,618)	(9,913,401)	(1,758,719)
Basic/Diluted loss per share	(0.08)	(0.21)	(0.07)
Total assets	429,515	3,112,767	899,219

### SELECTED QUARTERLY FINANCIAL INFORMATION AND QUARTERLY ANALYSIS

The following table sets forth consolidated financial information for the periods indicated.

	Three months ended			December 31, 2017
	September 30, 2018	June 30, 2018	March 31, 2018	
Revenue	\$ -	\$ -	\$ -	\$ -
Research and development	71,143	206,128	396,259	621,916
General and administration	508,144	814,777	510,177	931,454
Impairment loss	-	-	-	-
Listing costs	-	-	-	-
Finance (income) expense, net	-	(3,629)	2,687	(1,735)
Net loss	(579,257)	(1,155,981)	(920,758)	(1,551,635)
Basic loss per share	(0.01)	(0.02)	(0.01)	(0.03)
Diluted loss per share	(0.01)	(0.02)	(0.01)	(0.03)

	Three Months Ended			December 31, 2016
	September 30, 2017	June 30, 2017	March 31, 2017	
Revenue	\$ -	\$ -	\$ -	\$ -
Research and development	369,485	479,102	234,636	229,016
General and administration	698,800	1,687,364	1,928,733	1,377,186
Impairment loss	-	604,485	-	-
Listing costs	-	-	-	-
Finance expense, net	(2,041)	(6,056)	8,453	391
Net loss	(1,066,244)	(2,764,895)	(2,171,822)	(1,606,593)
Basic loss per share	(0.02)	(0.05)	(0.04)	(0.03)
Diluted loss per share	(0.02)	(0.05)	(0.04)	(0.03)

Variations in the Company's net losses and expenses for the periods above resulted primarily from the following factors:

- Revenue. The Company has not earned revenue to date as it is in the pre-revenue research and development stage.



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- The Company has a \$579,257 net loss for the three months ended September 30, 2018 compared to \$1,068,285 for the prior comparable period. Research and development and general and administrative expenses trended downwards due to working capital preservation activities.

### DISCUSSION OF OPERATIONS

3DS intends to develop and commercialize a portfolio of Tests based on the TeloView™ technology in key global markets. The Company has initiated discussions with third party research organizations and distributors in a number of regions in anticipation of the commercialization of its Tests and the provision of testing services to various collaborators. Based on current discussions, these arrangements may, in some cases, result in revenue or profit sharing between the Company and its partners. The scope of involvement from the Company in the research, operational or commercial portions of these arrangements may vary.

The Company was successful in securing funding through a private placement of 6,000,000 units at \$0.75 per unit for gross proceeds of \$4,500,000. This brokered private placement closed in three tranches between December 2016 and January 2017 (the "**2016 Private Placement**") and afforded the Company the necessary capital to advance its research and development programs as well as the required working capital for its general and administrative expenses.

On January 6, 2017, 3DS announced that it had hired Joost van der Mark as CBO. Mr. van der Mark brings more than two decades of executive experience to 3DS, having worked with several international healthcare companies, as well as earlier stage biotechnology and healthcare firms. His experience includes positions at BioSyent Inc., where he served as Vice-President of Corporate Development, Nycomed (now Takeda), Sanofi, and Bayer. He was also a co-founder of Orphan Canada Inc., which subsequently sold its assets to Knight Therapeutics.

On February 21, 2017, Dr. Sabine Mai presented the results of a prospective blood-based prostate cancer pilot study that utilized the TeloView™ software platform at the Molecular Medicine Tri-Conference in San Francisco, California. The prospective prostate cancer patient cohort was assessed to evaluate TeloView™'s potential to blindly stratify 50 intermediate risk prostate cancer patients, with Gleason Scores of 7 and prostate specific antigen levels above 20 nanograms per milliliter of blood, and monitor their disease progression or stability. The finding of the study was that the radical prostatectomy surgery results of the patients studied correlated with the observed three-dimensional nuclear telomeric profiles from their circulating tumour cells, indicating that the TeloView™ platform could predict the stability and aggressiveness of the cancer in the study's 50 intermediate risk prostate cancer patients. A peer-reviewed paper discussing the findings of the study is currently being reviewed and edited, and management expects that this study will be published in a peer-reviewed journal.

On February 23, 2017, the Company announced that the validation program for the Telo-HL™ test had commenced. The Company followed this announcement, on March 29, 2017, by announcing that it had successfully completed internal analytical assay validation for its Telo-HL™ test pursuant to US Food and Drug Administration guidelines. Assay validation of Telo-HL™ included validating the consistency of key reagents and the reproducibility and repeatability of the locked protocol. This marked the completion of the first two stages of the five-stage validation program. On June 8, 2017, the Company announced that the clinical study component, stage three, of the Telo-HL™ validation program, was successfully underway. This process was completed on September 30, 2017. The remaining stages of the validation program include the validation of the prognostic scoring model (stage four) and, possibly, analytical validation by a certified clinical laboratory (stage five). The Company's test for Hodgkin's lymphoma is its most advanced clinical test, and aims to stratify patients at the point of diagnosis into non-relapsing and relapsing patients so that relapsing patients may be considered for alternative treatments to standard chemotherapy at the beginning of their treatment process. The Company believes that Telo-HL™ could



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provide several advantages to patients and healthcare system payers, including by potentially indicating new treatment options, enabling shortened treatment cycles, reducing complications from ineffective treatments and allowing for treatment cost savings.

The Company released clinical study results on March 21, 2017 which demonstrated that, based on a swab from the inside of a study participant's cheek, the TeloView™ platform was able to distinguish between those study participants that had Alzheimer's disease and those that did not, and between mild, moderate and severe forms of Alzheimer's disease in study participants. The confirmatory study that produced the results involved a cohort of forty-four age and gender matched healthy, non-caregiver controls, and forty-four Alzheimer's disease study patients. As part of the study, three-dimensional telomeric profiles of the buccal cells of Alzheimer's disease patients and their non-Alzheimer's disease carrying controls were examined, with participant information blinded to the analysis. The study indicates that the TeloView™ platform is a candidate as a non-invasive Alzheimer's disease biomarker and monitoring tool. The results of this study were reported in the peer-reviewed Journal of Alzheimer's Disease under the following citation: Garcia A, Mathur S, Carmela Kalaw Maria, McAvoy Elizabeth, Anderson James, Luedke Angela, Itorralba Justine and Mai Sabine (2017) Quantitative 3D Telomeric Imaging of Buccal Cells Reveals Alzheimer's Disease-Specific Signatures. Journal of Alzheimer's Disease 58, 139-145.

On April 11, 2017, the Company announced the hiring of Dr. Kevin Little as CSO. Dr. Little joined the Company after several years providing strategic advisory services to help facilitate new life sciences collaborations for public and private sector clients, including Thomson Reuters, Illumina, Janssen, McGill University, and the Global Alliance for Genomics and Health. Dr. Little previously led the PERFORM Centre, a \$36 million health research and community services complex, as the founding Chief Administrative Officer. Prior to that, Dr. Little led the New Zealand government's strategic investment relationships across the biotechnology industry sector. He holds a bachelor of science degree in biology from the University of Victoria, earned his PhD in Experimental Medicine from McGill University, and completed a postdoctoral fellowship in translational neuroscience and clinical gene therapy at the University of Auckland.

On April 18, 2017, the Company announced that it was relocating its corporate offices to MaRS in Toronto. Following a screening process, 3DS was selected by MaRS Venture Services to move to the MaRS Discovery District.

On April 27, 2017, the Company announced that it had received the first batch of blood samples for the PRECISE prostate cancer clinical trial ("**PRECISE**"). The Company's participation in PRECISE is expected to assist the Company's validation of its prostate cancer test ("Telo-PC™"). The Company's Telo-PC test is a blood-based diagnostic test, which is based on the TeloView™ platform. Recent clinical results presented at the Molecular Medicine Tri-Conference in San Francisco, California have indicated that the Telo-PC test is a candidate to provide an accurate and minimally invasive risk assessment and monitoring platform for prostate cancer. The Company expects that these clinical results will be detailed in peer-reviewed papers and be published in a peer-reviewed journal.

On July 19, 2017, the Company announced that it has entered into an agreement with a syndicate of agents, to sell by way of a short form prospectus (the "**July 2017 Prospectus**"), on a best efforts agency basis, up to 12,500,000 Common Shares at a price of \$0.40 per Common Share, for aggregate gross proceeds of up to \$5,000,000 (the "2017 Offering"). In addition, the Company granted the agents an option to purchase up to an additional 1,875,000 Common Shares at \$0.40 per Common Share to cover over-allotments, if any. The Company agreed to pay a cash commission to the agents, equal to 8.0% of the gross proceeds of the 2017 Offering, except in respect of any subscriptions by eligible purchasers on a list provided by the Company (the "President's List") and accepted by the agents, for which a commission equal to 2.0% of the gross proceeds from the 2017 Offering raised from such purchasers. The Company has also agreed to reimburse the agents for reasonable expenses incurred, including



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reasonable legal fees to a maximum of \$50,000 plus disbursements and taxes. Additionally, the Company agreed to pay to the agents a corporate finance fee of \$40,000 plus tax, as well as issue to the agents broker warrants, exercisable at the price of the securities issued in the 2017 Offering as is equal to 8.0% of the aggregate number of Common Shares issued in the 2017 Offering not on the President's List and 2.0% of the aggregate number of Common Shares issued in the 2017 Offering to purchasers on the President's List. Each broker warrant shall be exercisable into one common share at any time prior to the date that is 24 months after the closing date.

On August 11, 2017, Ms. Stevenson resigned from the Board of Directors on, and on October 7<sup>th</sup>, 2017, the Company announced that Bruce Colwill had resigned from the Company's Board.

On October 19, 2017, the Company announced that it had added Keith Cassidy to the Board and to the Company's audit committee. The Company also announced the appointment of Jason Flowerday to the Company's audit committee and Gordon McCauley's appointment as the new chair of the audit committee.

On October 4, 2017, the Company announced that it closed a non-brokered private placement (the "**ScreenCell Private Placement**") of 2,000,000 common shares (the "Shares") at a price of C \$0.25 per Share for gross proceeds of C \$500,000 with ScreenCell SA ("ScreenCell"). ScreenCell is a strategic partner and supplier to 3DS and has been a research and development collaborator for many years. ScreenCell currently supplies the Company with a screening system for the capture and isolation of circulating tumor cells ("CTCs") from blood. The proceeds of the ScreenCell Private Placement will be used for clinical operations, namely the Company's Hodgkin's lymphoma clinical study, including clinical wages and laboratory expenses, and general working capital.

On October 25, 2017, the Company announced that it had appointed a syndicate of agents led by Haywood Securities Inc. ("**Haywood**"), and including Industrial Alliance Securities Inc. (collectively with Haywood, the "**Agents**"), to sell, by way of a private placement (the "**October 2017 Private Placement**") on a best efforts basis, units (the "**Units**") of the Company at a price of \$0.25 per Unit (the "**Issue Price**") for gross proceeds of up to \$2,500,000 (the "**Offering**"). The closing of the Offering is subject to the Company raising a minimum offering amount of \$1,750,000. Each Unit issued pursuant to the Offering will consist of one common share in the capital of the Company (a "**Common Share**") and one half of one Common Share purchase warrant (each whole warrant, a "**Warrant**"). Each Warrant entitles the holder thereof to purchase one additional Common Share at a price of \$0.40 for a period of 24 months from the closing date of the Offering. The Agents have been granted the option (the "**Agents' Option**") to sell up to an additional 2,000,000 Units at the Issue Price, exercisable in whole or in part at any time up to 48 hours prior to the closing of the Offering. On the same date, the Company announced the concurrent termination of the July 2017 Prospectus previously announced on July 19, 2017.

On November 27, 2017, the Company announce its intention to raise \$1.5 million CAD by way of a non-brokered private placement of 7,500,000 units (the "**Units**") at a price of \$0.20 per Unit (the "**November 2017 Private Placement**"). Each Unit will consist of one common share of the Company and one common share purchase warrant exercisable at \$0.35 for 5 years from the date of the closing of the Private Placement. The Company has agreed (i) to pay a cash finder's fee of 6% of the aggregate proceeds raised from subscriptions arranged by certain finders and (ii) to issue broker warrants equal to 6% of the aggregate Units subscribed for pursuant to the subscriptions arranged by such finders. Each broker warrant shall be exercisable for one common share at a price of \$0.35 for a period of 24 months following the closing date of the Private Placement. On the same date, the Company announced the concurrent termination of the October 2017 Private Placement announced on October 25, 2017.

On November 28, 2017, the shareholders of the Company elected John Swift, Jason Flowerday, Dr. Sabine Mai, Gordon McCauley, Keith Cassidy and Ian Fodie to the Company's Board of Directors. The newly elected director, Ian Fodie, was concurrently appointed as chair of the Company's Audit Committee. Mr. Fodie currently services as Principal of IF Only Strategies Ltd and acting Chief Financial

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Officer of Vividata. In addition, Mr. Fodie has held several executive management and board positions, many of whom are traded on the TSX or TSX Venture Exchange. In addition to Ian Fodie, chair of the Audit Committee, Gordon McCauley and Keith Cassidy were appointed as remaining members of the Company's Audit Committee. On the same date, the Company appointed Gordon McCauley to its Governance & Nominating committee as chair with Jason Flowerday and Keith Cassidy serving as the other members of the committee.

On December 5, 2017, the Company announced the closing of a non-brokered private placement (the "**December 2017 Private Placement**") as previously announced on November 27, 2017. The December 2017 Private Placement consisted of the sale of 8,113,365 units (a "**Unit**") at a price of \$0.20 per unit. Each unit consists of one common share of the Company and one common share purchase warrant (a "**Purchase Warrant**") at an exercise price of \$0.35 per common share until December 5, 2022 for gross proceeds of \$1,222,673. Cash costs directly attributable to the Offering were \$144,027, including \$91,704 paid to certain finders (the "**Finders**"), equal to 6% of the gross proceeds raised by the Finders. In addition, the Finders received 458,520 non-transferrable warrants (a "**Finder's Warrant**") equal to 6% of the number of Units issued by the Company to investors introduced to the Company by the Finders. Each Finder's Warrant is exercisable to purchase one common share of the Company until December 5, 2019 at an exercise price of \$0.35. Certain insiders of the Company participated in the Private Placement by purchasing an aggregate of 230,000 Units. Accordingly, the Private Placement constitutes, to that extent, a "related party transaction" under applicable Canadian securities laws. The Company is relying on the exemptions from the formal valuation and minority approval requirements found in sections 5.5(a) and section 5.7(1)(a) of Multilateral Instrument 61-101 – *Protection of Minority Security Holders in Special Transactions* as the fair market value of the transaction, insofar as it involves interested parties, is not more than the 25% of the Company's market capitalization. The Company did not file a material change report more than 21 days before the expected closing of the Private Placement as the details of the Private Placement and the participation therein by related parties of the Company were not settled until shortly prior to closing and the Company wished to close on an expedited basis for sound business reasons.

On February 12, 2018, that Gordon McCauley had resigned from the Company's Board.

Subsequent to December 31, 2017, the Company announced on February 20, 2018, preliminary positive topline results from the development of its Telo-HL™ Test for Hodgkin's Lymphoma. Preliminary analysis of the study data for Telo-HL™ showed that the Company's TeloView™ platform was able to distinguish, with a high degree of statistical significance, multiple differences between group patients that responded to standard ABVD chemotherapy, and a group that relapsed or is refractory to treatment within the first 12 months. Telo-HL™ is intended to provide clinicians with the first biomarker to identify the 15% - 20% of new HL patients who will likely fail standard chemotherapy, and who should immediately be considered for more advanced treatment or inclusion into clinical trials to access emerging treatments such as immunotherapies. The multi-parametric telomeric analysis with TeloView™ was performed by the Company (blinded to patient status), and the results were then shared with the statistical partner BioStat Solutions Inc. ("**BSSI**"), who compared the TeloView™ data with the corresponding clinical outcomes of patients, and identified significant differences across multiple TeloView™ parameters.

The Company expects that additional capital will be necessary to continue the development and commercialization of its Tests and to fund its ongoing general and administrative costs. Management is taking action to limit costs and avoid unnecessary expenses where possible; however, a guarantee of ongoing funding from new or current investors is never a certainty.

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### Development Programs and Timelines

The Company has developed plans for pursuing tests in multiple disease areas in a modular fashion, such that each disease program and technology improvement phase may be activated as a stand-alone activity, phased in sequentially, or undertaken concurrently, pending financial resources. Listed here are the priority programs.

#### Hodgkin's Lymphoma (Telo-HL™)

The Company is in the process of applying its technology to attempt to identify whether standard chemotherapy is likely to benefit an individual or whether an alternative care plan should be considered from the outset of treatment.

#### *Background:*

Hodgkin's lymphoma ("HL") is a cancer affecting all ethnicities and ages. According to the Statistics and Epidemiology and End Results Program of the National Cancer Institute of the USA there are two peaks of incidence for HL: people in their late 20's, and again in those over 55 years of age. HL is a highly curable cancer with a five-year survival rate of over 85%. Over 95% of all HL cases fall into four categories, collectively referred to as "classical HL". These cases of HL are diagnosed by the presence of precursor Hodgkin and especially abnormal Reed-Sternberg cells in the lymphatic system (the network of vessels that help drain waste products from infection and cell metabolism in the body). The World Health Organization estimates there are 66,000 new cases of HL globally per year (1,000 in Canada, 8,300 in the United States, and 12,000 in the European Union), with over 200,000 people in the United States currently living with HL. HL affects men (56% of new cases) slightly more frequently than women (44%). The five and ten-year survival rates are 86% and 80%, respectively, with a range between 93% and 77% survival depending on the stage of disease at the time of diagnosis. While global figures are unavailable, with an estimated incidence rate of HL at 2.8 per 100,000 per year (in industrialized countries), there may be as many as 200,000 new cases of HL globally per year. As the developing world gains access to better diagnostics and care, ways to identify affordable treatment options become increasingly important.

Though several options are available for HL patients, care plans are generally established based on disease grading and staging, without further means of personalizing treatment. Most new HL patients are first treated with a cocktail of ABVD (doxorubicin/Adriamycin, bleomycin, vinblastine, dacarbazine) chemotherapy, administered every 2-4 weeks for 2-8 cycles and monitored by PET-CT scanning, at an average total cost of approximately USD\$25,000 per patient according to the American Cancer Society. Unfortunately, 10-20% of patients fail to respond sufficiently within the first year of ABVD chemotherapy. For most patients with relapsed or refractory HL ("RRHL"), the secondary line of therapy is generally high-dose salvage chemotherapy (with drugs other than ABVD), along with autologous stem cell transplantation ("ASCT"). Radiation treatment may also be added in some cases (for combined modality therapy). According to a study published by Shah et al in the Journal of Biology of Bone Marrow Transplantation in 2015, the average cost of ASCT in North America can range from approximately USD\$175,000 - USD\$300,000, including the cost of hospitalization and post-surgical care. If the patient fails to respond to this treatment, more recent options for further treatment have become available, including the antibody-drug conjugate brentuximab vedotin (BV). Costs of treatment with BV most often include accompanying ASCT, at costs that can range from approximately USD\$300,000 - USD\$420,000. Another class of new therapies are the PD-1 inhibitors nivolumab and pembrolizumab, at costs ranging from approximately USD\$100,000 – USD\$150,000 per patient, per year (as assessed by Saltz and Bach, writing in the Journal of American Drug Benefits in 2015). The mean cost of treating a first-line responding patient in the U.S. (over 60 months) is approximately USD\$89,000, whereas the mean cost for treating RRHL is currently over approximately USD\$400,000, a cost that may, in the future, rise as new, more expensive therapies are introduced to clinicians.



## **Management's Discussion and Analysis**

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The Company believes that the introduction of Telo-HL™ to the treatment regimen may allow doctors to identify likely responders and non-responders to the first line therapy, at the same time as they are diagnosed. If doctors were able to make such identification at this state, this may give clinicians, patients, and payors clinically actionable information to guide their treatment and reimbursement decisions. Identifying patients who are unlikely to respond to standard therapy may provide clinicians with greater confidence to (i) avoid unnecessary toxicity and complications while their disease continues to worsen, and (ii) to direct their patients towards alternate treatments or enrollment in appropriate trials. Identifying patients who are likely to respond to less-expensive existing treatments may also give clinicians and patients confidence they are doing all that they can, and may provide assistance to health systems and payors they are allocating their resources accordingly.

### *Program Status:*

The Company's lead program, Telo-HL™, entered the later stages of development in late FY 2017 with an expected timeline to be ready for commercialization through a research use offering to collaborators, or as a Laboratory Developed Tests (LDT) in partnership with commercial clinical laboratory by Q4 of the 2019 fiscal year and Q1 of the 2020 fiscal year respectively. 3DS commenced a clinical study in April 2017 intended to build the predictive scoring model for TeloView™ needed for a clinically-compliant Telo-HL™ test (step three), to identify risk of relapse at the individual patient level, and then evaluate the performance characteristics of such a test (step four).

Before initiating this study, the Company had completed assay development (step one) and assay validation (step two). In parallel with the step three study work, 3DS is processing further patient cases for the performance validation (step four) of the TeloView™ Score. The final stage (step 5) of the program consists of an analytical validation study to demonstrate the reproducibility characteristics of the Telo-HL™ process, by repeating analysis on a small subset of samples from the same patients.

To date the Telo-HL™ study steps three and four have included laboratory processing and TeloView™ analysis of approximately 330 retrospective HL cases. The process included performing the wet lab (co-immuno-telomeres FISH assay), three-dimensional multi-channel microscopy, and TeloView™ software analysis on 30 H and 30 RS cells per patient (as identified by multiple operators at three independent steps). The clinical study was multicenter with HL tissue sourced from four contributing hospital sites in Canada and Europe. The preliminary statistical analysis conducted on 150-200 cases indicated a high potential for development of a successful scoring model. The clinical records accompanying samples from one of the four sites are still to be collected in order to finalize and validate the test scoring model.

The Company anticipates completion of the statistical analysis and validation of the Telo-HL™ test by June 2019. The results will be submitted for publication in highly reputable peer-reviewed clinical journal in the latter half of 2019.

### Prostate Cancer (Telo-PC™)

The Company is in the process of applying its TeloView™ platform to the assessment of telomere organization in prostate cancer. According to the American Cancer Society, roughly 1 in 7 men in the developed world will be diagnosed with prostate cancer ("PCa") in their lifetime.

### *Background:*

The prostate is a gland located beneath the bladder, containing 30 – 50 small sacs responsible for producing a fluid that forms part of the semen. The Statistics and Epidemiology and End Results Program of the National Cancer Institute of the USA confirms that PCa is a highly-treatable disease, with over 95% five-year survival rate. According to the World Health Organization (WHO), nearly 1.1 million new cases

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of PCa are diagnosed annually around the world (including 161,000 in the United States, 21,000 in Canada, and 390,000 in the European Union). Access to prostate-specific antigen (PSA) testing in blood, for both early detection and monitoring, has produced a large increase in PCa incidence rates in the developed world. According to a study published by Drazer et al in the Journal of Clinical Oncology in 2015, there are nearly 35 million PSA tests performed annually in the U.S., 30% of which are repeat tests. When a man presents with a high PSA level, he is directed to either undergo an MRI scan to confirm the results of the PSA test, or a transrectal ultrasonography (“TRUS”) guided biopsy. During the biopsy procedure, 6-12 cores are collected from the prostate gland in an attempt to capture a representative sampling of the entire organ's status, which are then examined by a pathologist for potential diagnosis of PCa. A Gleason score, ranging from 2 to 10, is assigned to indicate the tissue's pathology and how likely it is that a tumor will spread. The lower the Gleason score, the less likely a tumor will spread. Men scoring high enough to be suspected of clinically significant prostate cancer may then be directed to have ablation therapy, or to have their prostate partially or completely removed surgically. Post-surgical tissue can be assessed by a pathologist more accurately to determine the true grade of the cancer.

According to the National Centre for Health Statistics in the USA, approximately 138,000 prostatectomy surgeries are performed in the U.S. annually. Based on a study conducted by Stark et al and published in the Journal of Clinical Oncology in 2014, approximately 56% of men diagnosed with prostate cancer are assessed pre-surgery as Gleason 7, and 29% as Gleason 6. Gleason 6 and 7 are considered medium grade PCa. High grade PCa (Gleason scores 8-10) accounts for approximately 15% of all prostate cancer patients. The success rate of curing cancer by removing the prostate is measured by 5-year PSA relapse-free survival rates. According to the Statistics and Epidemiology and End Results Program of the National Cancer Institute of the USA the 5-year PSA relapse-free survival rates range from 55%–71% and 10-year prostate cancer-specific survival rates range from 72%–92%. Quality of life is a major factor deterring the use of prostatectomy. The American Cancer Society reports that 25% of men experience frequent urine leakage or no bladder control at six months after prostatectomy; however, this number drops to less than 10% by three years. Furthermore, nearly all men suffer some degree of erectile dysfunction following the surgery, for at least 6 months. Men younger than 60 years have higher likelihood of regaining their erectile function within 3 years.

Commenting in a 2014 Medscape article, Gerald Chodak, MD has observed the cost for prostate surgery ranges widely in North America, anywhere from \$10,000 up to \$135,000. Physician fees also vary, from \$4,000 up to \$19,000 (averaging around \$8,000). In the U.S., 20 – 25% of men assessed as having intermediate risk PCa (Gleason 7) on biopsy are found to have less significant cancer when the pathology examination is completed on the entire post-surgical prostate.

Current biomarkers for PCa offer inconsistent information for an individual patient. A study conducted in 2017 by Wei L et al and published in the European Journal of Urology compared the results of the Oncotype Score (Genomic Health), Prolaris (Myriad) and Decipher Score (Genome Dx) performed on four patients, and highlighted the variability between the results of these three prognostic tests. This represents an important opportunity for better testing which could avoid the complications, cost, and quality of life impacts of unnecessary surgeries. The Company believes that TeloView™ analysis could assist in fulfilling this need for better testing if performed at various time points in the course of the disease in order to predict progression to more aggressive PCa, better inform the potential need for surgery, and monitor disease progression over time.

### *Program Status:*

3DS is applying TeloView™ in two applications to PCa that seek to predict the most effective treatment plan for an individual patient, through its participation in the PRECISE trial. PRECISE is the first randomized, multicenter study focused on biopsy naive patients (approximately 450 men) with a clinical suspicion of prostate cancer. Following men for up to 24 months, this prospective study is principally designed to compare cancer detection rates and monitoring efficacy between TRUS-guided biopsy and



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MRI-targeted biopsy. PRECISE will incorporate the Company's blood-based tests into the original biopsy focused investigation as a correlative biomarker, as well as grant access to biopsy tissue for additional 3DS analyses. The Company's participation seeks to establish a baseline of genomic instability for prostate cancer patients, provide follow-up monitoring information, and generate essential data for developing several blood-based clinical tests for the personalized assessment and treatment of prostate cancer patients. The Company seeks to facilitate personalized treatment decisions for each individual prostate cancer patient that can meet one or more of the following clinical needs:

- identify the right patients for the right treatment;
- accurately monitor patients during treatment;
- reduce the number of patients undergoing unnecessary prostate biopsies;
- reduce the number of biopsies over time (for each patient);
- reduce biopsy-related adverse events including infection and pain;
- reduce the over-diagnosis and over treatment of clinically insignificant prostate cancer; and
- reduce the economic burden of diagnosing and treating prostate cancer.

The estimated total cost for the Company to participate in the entire PRECISE trial is \$1.4 million. Approximately \$100,000 has been spent to date on the PRECISE program. This study is ongoing with biological samples collected for TeloView™ analysis being currently received and processed at Dr. Mai's academic laboratory at the University of Manitoba, in collaboration with ScreenCell (Paris, France), the Canadian Urology Research Consortium (CURC), led by Dr. Laurence Klotz, Professor, University of Toronto and 3DS.

3DS has executed a Clinical Trial Collaboration Agreement with the Canadian Urology Research Consortium ("**CURC**") at Sunnybrook Health Sciences Centre in Toronto. The purpose of the collaboration is to evaluate the clinical utility of the three-dimensional telomere technology testing as a correlative biomarker for the prognosis and risk assessment of prostate cancer patients at different stages of the disease. In this collaboration, CURC will provide 3DS with patient samples, including peripheral blood and/or biopsy tissue sections from all patients recruited in the PRECISE trial.

In March 2018, the Company signed a collaboration agreement with MDxHealth SA ("**MDxHealth**") to evaluate 3DS' prognostic test candidate for prostate cancer ("**Telo-PC™**"), using 3DS' TeloView™ platform. The proposed collaboration will evaluate the TeloView™ technology in improving the clinical management of patients with prostate cancer relative to biopsy-based methods, as announced by 3DS on March 28, 2018. The budget and timeline to complete this study are yet to be determined.

### Multiple Myeloma (Telo-MM™)

Depending on the availability of laboratory resources and funds, the Company may perform exploratory studies involving the TeloView™ platform's application to multiple myeloma, a disease for which preliminary investigations and strong clinical support of TeloView™ already exists.

#### *Background:*

Multiple myeloma ("**MM**") is a cancer characterized by the accumulation in bone marrow of abnormal plasma cells which secrete excessive amounts of immunoglobulins and interfere with normal organ function. According to the American Cancer Society and the International Agency for Research on Cancer, MM accounts for 13% of all hematological cancers, with over 33,000 new cases diagnosed annually in North America and over 33,000 in the EU, and is responsible for nearly 2% of all cancer deaths. Patients diagnosed with asymptomatic Smoldering multiple myeloma (SMM), which does not require immediate treatment, can progress to active MM at a rate of approximately 10% per year for the first five years post-diagnosis. In the case of newly diagnosed MM patients, while a variety of new



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therapeutic options are now available, nearly 20% of patients will relapse within 1 year regardless of the chosen therapy. To the Company's knowledge, no biomarker currently exists to identify or stratify subsets of high-risk patients at the point of diagnosis, when alternative therapeutic regimens might be deployed

### *Program Status:*

The Company has designed, in collaboration with key clinical partners, two potential pilot studies which can be activated if and when the financial resources are available. These studies aim to establish the early clinical utility potential of the TeloView™ applications to MM, in order to justify or exclude more expansive studies that would bring a Telo-MM™ test (or tests) into the Company's commercial development plan. These two independent pilots can be run separately or together (concurrently or sequentially), on archived samples from previously diagnosed patients with SMM or MM. The aim of these studies will be to determine whether the TeloView™ assay can differentiate subgroups of patients who: i) will progress from SMM to MM sooner and are candidates for earlier treatment intervention; and ii) will relapse early after initial treatment with common first-line combinatory chemotherapy and are candidates for alternative forms of therapy or direction into appropriate clinical trials.

By conducting retrospective studies, 3DS has the same opportunity as with Telo-HL™ development: to analyze existing patient samples (in this case, stored bone marrow aspirates) and immediately compare the TeloView™ results to the follow-up clinical data (which patient's disease progressed or did not progress, and whether the patient responded to treatment or not). If the results from either, or both, of these pilot studies indicate TeloView™ values are significantly different between the two groups in each study, the Company may then have the confidence and option to pursue larger studies in MM.



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### Lung Cancer (Telo-LC™)

Depending on the availability of laboratory resources and funds, the Company may perform exploratory studies involving the TeloView™ platform's application to lung cancer, a disease for which preliminary investigations and clinical support of TeloView™ already exist.

#### *Background:*

Lung cancer ("LC") is the leading cause of cancer deaths in both men and women. According to the American Cancer Society and the International Agency for Research on Cancer, in the U.S. five-year survival rates for LC are below 20%, such that LC mortality each year is higher than the combined number of colon cancer, breast cancer, and prostate cancer deaths. The majority of LC cases (85%) are characterized as non-small cell, a group of mostly three types of carcinoma. Nearly 250,000 patients are diagnosed with lung cancer per year in the U.S. and Canada, 60% of whom have already progressed to aggressive (stage IV) disease by the time of diagnosis. The recent and rapidly increasing interest in immunotherapy is poised to have even more significant impact in treating LC, despite the poor correlation between response and the existing predictive biomarkers. This presents several areas of apparent unmet need for better detection, prediction, and monitoring in LC, for which TeloView™ technology may have application, based on previously conducted clinical results.

#### *Program Status:*

3DS has been involved in collaboration with the IUCPQ, an internationally-recognized center in cardiopulmonary disease pathology and tissue banking, to apply TeloView™ analyses to lung cancer biopsies.

In the previous fiscal year 3DS and IUCPQ has completed an LC pilot study using TeloView™ analysis to distinguish between two tumor sites which arose as independent cancers (synchronous), or for which one is a primary and other sites are secondary (metastatic). The results of the study were presented at the 17<sup>th</sup> World Conference on Lung Cancer in December 2016.

In Q3 and Q4 of fiscal 2018 the Company has conducted a second LC pilot study with 40 patients in collaboration with IUCPQ. The study focused on benchmarking tumour mutational burden against TeloView™ analysis in measuring genomic instability.

The Company has also planned a third lung cancer retrospective pilot study in collaboration with IUCPQ to evaluate TeloView™ utility to identify lung cancer patients who responded to recently FDA approved immunotherapies. The execution of this pilot study will depend on availability of funds and resources.

The Company is evaluating the option of pursuing prospective studies on similar LC patients to determine if a liquid biopsy from circulating tumor cells could provide earlier detection and prognostic information using TeloView™.

### **Regulatory Process**

The Company's participation in clinical studies is not impacted by a single regulatory process, but rather the Company and its collaborators must secure various ethics approvals and patient consents to access biological specimens and personal medical information. The Company is exploring various arrangements to make Telo-HL™ and other tests in the Company's pipeline available to patients and their healthcare providers in Canada, the United States and various other jurisdictions. Federal regulations issued by the Centers for Medicare & Medicaid Services govern the laboratory requirements for standards and certifications. In general terms, the CLIA regulations establish quality standards for laboratory testing performed on specimens from humans, such as blood, body fluid and tissue, for the purpose of diagnosis,



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prevention, treatment of disease, or assessment of health. Laboratories must adhere to the standards of CLIA, and may deliver their own LDTs provided they fulfill the requirements of an authorized accreditation body such as the CAP.

The commercialization of Tests as In-vitro Diagnostic Devices (“**IVDD’s**”) would require the Company to seek regulatory approval from Health Canada, the FDA and other national oversight bodies if the Company elects to market its Tests as IVDDs. At this point in time, the Company has not decided whether it will seek IVDD status and regulatory approval from Health Canada and the FDA for any of its Tests.

### LIQUIDITY AND CAPITAL RESOURCES

The Company's Tests are at an early stage of development, and, accordingly, the Company does not generate cash from operations and finances its operations by raising capital through equity issuances and other means.

#### Sources and Uses of Cash

As at September 30, 2018, the Company had cash resources of \$107,199, compared to \$67,331 as at June 30, 2018. As at June 30, 2018 the Company had working capital deficit of \$818,635 compared to working capital of \$576,638 as at June 30, 2018. The decrease in working capital is a result of continued cash usage for operations and research and development with no offsetting capital raise or revenue producing activity.

#### Funding Requirements

As the Company does not currently earn revenue, it is required to finance its operating expenditures and capital costs. Operational activities were financed by previous capital raises.

The Company expects to finance its ongoing development costs by issuing equity to prospective investors that have expressed an interest in becoming shareholders of the Company and is currently in discussions with such investors. The Company will consider investments through public or private financings. The Company's development programs are modular and can be scaled to accommodate the Company's financing strategy and timing.

#### Contractual Obligations

The Company has entered into an operating lease for office space in Winnipeg (the “**Winnipeg Lease**”) and a license agreement for lab and office space in Toronto (the “**Toronto Lease**”). The term of the Winnipeg Lease is five years commencing on June 20, 2016 and the term of the Toronto Lease is one year and 16 days commencing on April 15, 2017. Both agreements have the option to extend at the lessee's request; however, the Toronto Lease also requires the lessor's prior written approval before it can be extended. Included within the Winnipeg Lease is an early termination option (the “**Option to Terminate**”) allowing for, upon six (6) months written notice, the ability to terminate the lease after the conclusion of the third year of the lease. The monthly expenditure for the Toronto Lease is \$6,450 plus applicable taxes and the minimum monthly expenditure for the Winnipeg Lease is \$1,050 plus applicable taxes and additional rent relating to portion of building operating costs for years 1-3 and minimum rent of \$1,093.75 in years 4-5 plus applicable taxes and additional rent relating to portion of building operating costs, should the Company not utilize its Option to Terminate.

The Company entered into an arrangement to sublease (the “**Sublease arrangement**”) office space, which included commitments of \$6,615 for the remainder of the fiscal year ending June 30, 2018 and \$13,230 for the fiscal year ending June 30, 2019. In concurrence with the Sublease arrangement, the



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Company has entered into an arrangement with the proprietor in which the Company may be required to reimburse the proprietor for any payment deficiencies of the new tenant until June 19, 2021.

The Company renewed its agreement (the "**MaRS Renewal**") for lease of office and laboratory space at MaRS Discovery District for a period of one year, effective May 1, 2018 (the "**Term**"). In accordance with the MaRS renewal, the Company has committed to payments of \$8,069 per month during the Term.

### Liquidity Risk

The Company manages liquidity risk through maintaining sufficient cash to finance its operations and seeking financing from existing shareholders and outside investors as required. The Company may have a working capital deficiency in the next twelve months if it is unable to raise enough cash to finance its planned business operations. If the Company does have a working capital deficiency, it may not be able to pay continuing obligations as they become due such as the lease payments in "*Contractual Obligations*" above. The Company intends to satisfy its continuing operating expenditures through existing cash on hand and under future equity offerings. Using the proceeds from future equity offerings, the Company will work toward the commercialization of its Telo-HL™ test, and may undertake additional studies involving prostate cancer, multiple myeloma and lung cancer. The Company will continue to be dependent on raising capital through equity issuances and other means, including the pursuit of non-dilutive grant funding, as required until and unless it achieves the commercialization of its Tests and generates profit from its operations. If financing is not available on reasonable terms as a result of external factors, such as disruptions in the capital markets, the Company's liquidity may be affected.

### OUTSTANDING SHARE CAPITAL

As of the date of this document, the Company had 64,531,545 common shares issued and outstanding, 3,786,552 share purchase options issued and outstanding, and 15,616,698 share purchase options issued and outstanding.

### COMMITMENTS AND CONTRACTUAL OBLIGATIONS

As at September 30, 2018, and in the normal course of business, the Company has obligations to make future payments representing contracts and other commitments that are known and committed as follows:

<b>Contractual obligations payment due by fiscal period ending</b>	
<b>September 30:</b>	
2019	\$ 80,862

The Company has entered into sublease agreements which offset its obligation under other agreements. Should these agreements not be fulfilled, the Company would be obligated to pay approximately \$12,600 in 2019 and \$13,125 in 2020 and 2021.



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### RELATED PARTY TRANSACTIONS

Key management includes members of the Board of Directors, the CEO, the CFO, the VP Finance, the CBO and the CSO. In addition to their salaries, the Company also provides non-cash benefits and participation in its Stock Option Plan. The following table details the compensation awarded to key management:

	September 30, 2018	September 30, 2017
Salaries, fees and short-term benefits	\$ 180,000	\$ 245,890
Stock-based compensation	-	18,331
	<b>\$ 180,000</b>	<b>\$ 264,221</b>

### INTERNAL CONTROLS OVER FINANCIAL REPORTING

As a result of the Company's limited administrative staffing levels, internal controls which rely on segregation of duties in many cases are not possible. The Company has recently hired additional accounting and finance staff through a consulting agreement to address this potential weakness. To help mitigate the impact of this, the Company is highly reliant on the performance of compensating procedures and senior management's review and approval.

As a venture issuer, the Company is not required to certify the design and evaluation of the Company's disclosure controls and procedures ("DC&P") and internal control over financial reporting ("ICFR"), and as such has not completed such an evaluation.

Investors should be aware that inherent limitations on the ability of certifying officers of a venture issuer to design and implement on a cost-effective basis DC&P and ICFR, as defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, may result in additional risks to the quality, reliability, transparency and timeliness of interim and annual filings and other reports provided under securities legislation.

### CRITICAL ACCOUNTING ESTIMATES

The preparation of consolidated financial statements requires management to use judgment in applying its accounting policies and estimates and assumptions about the future. Estimates and other judgments are continuously evaluated and are based on management's experience and other factors, including expectations about future events that are believed to be reasonable under the circumstances.

Information about key assumptions and estimation uncertainties that have a risk of resulting in a material adjustment to the carrying amount of assets and liabilities within the next financial year are as follows:

- Estimates of inputs into the valuation of stock based compensation
- Measurement and period of use of intangible assets
- Estimates of future enacted corporate tax rates
- Recognition of government assistance

The Company is a research and development stage company and as such is primarily dependent on the funding of new investors to continue as a going concern. In the future, the Company's ability to continue as a going concern will be dependent upon its ability to attain profitable operations and generate funds therefrom, and to continue to obtain borrowings from third parties sufficient to meet current and future obligations and/or restructure the existing debt and payables.

### CHANGES IN OR ADOPTION OF ACCOUNTING POLICIES

The Company's principal accounting policies are outlined in the Company's annual audited financial statements for FY 2018. The Company is currently reviewing its accounting policies and is determining the method the Company expects to use to adopt them and the impact of these accounting policies on its business.

#### **New Standards Issued but Not Yet Effective**

The Company has not yet applied the following new standards, interpretations and amendments to standards that have been issued as at June 30, 2018, but are not yet effective. Unless otherwise stated, the Company does not plan to early adopt any of these new or amended standards and interpretations.

#### ***IFRS 2, Share-based payment***

In June 2016, the IASB issued amendments to IFRS 2, *Share-based Payment*, clarifying how to account for certain types of share-based payment transactions. The amendments will apply on after January 1, 2018 for the Company. The Company is currently evaluating the impact of the amendments to IFRS 2 on its consolidated financial statements.

#### ***IFRS 9 Financial instruments***

The final version of IFRS 9 was issued in July 2014 as a complete standard including the requirements for classification and measurement of financial instruments, the new expected loss impairment model and the new hedge accounting model. IFRS 9 (2014) will replace International Accounting Standard ("IAS") 39 *Financial instruments: recognition and measurement*. IFRS 9 is effective for reporting periods beginning on or after January 1, 2018. The Company is currently assessing the impact of this standard on its financial statements.

#### ***IFRS 15 Revenue from contracts with customers***

IFRS 15, issued in May 2014, will specify how and when entities recognize, measure, and disclose revenue. The standard will supersede all current standards dealing with revenue recognition, including IAS 11 *Construction contracts*, IAS 18 *Revenue*, International Financial Reporting Interpretations Committee ("IFRIC") 13 *Customer loyalty programmes*, IFRIC 15 *Agreements for the construction of real estate*, IFRIC 18 *Transfers of assets from customers*, and Standard Interpretations Committee ("SIC") 31 *Revenue – barter transactions involving advertising services*.

IFRS 15 is effective for annual periods beginning on or after January 1, 2018. The Company is currently assessing the impact of this standard on its financial statements.

#### ***IFRS 16 Leases***

On January 13, 2016, the IASB issued new IFRS 16 *Leases*. The new standard will replace IAS 17 *Leases* and is effective for annual periods beginning on or after January 1, 2019. Earlier application is permitted for entities that also apply IFRS 15 *Revenue from Contracts with Customers*. The Company is currently assessing the impact of this standard on its financial statements.

## Management's Discussion and Analysis

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### OFF-BALANCE SHEET ARRANGEMENTS

3DS has no material undisclosed off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on its results of operations, financial condition, revenues or expenses, liquidity, capital expenditures or capital resources that is material to investors.

### PROPOSED TRANSACTIONS

At present, there are no proposed asset or business acquisitions or dispositions.

### FINANCIAL INSTRUMENTS AND RISKS

The Company's financial instruments are as follows:

	September 30, 2018	June 30, 2018
<b>Financial Assets</b>		
Cash and cash equivalents	\$ 107,199	\$ 67,331
Amounts receivable	43,371	85,215
<b>Financial Liabilities</b>		
Accounts payable and accrued liabilities	(893,566)	(574,699)
Notes payable	(105,000)	-

The Company classifies its financial assets as (i) financial assets at fair value through profit or loss ("FVTPL"), (ii) loans and receivables or (iii) available-for-sale, and its financial liabilities as either (i) financial liabilities at FVTPL or (ii) other financial liabilities. Appropriate classification of financial assets and liabilities is determined at the time of initial recognition or when reclassified in the statement of financial position.

Financial instruments are recognized when the Company becomes a party to the contractual provisions of the instrument.

Financial assets at FVTPL include financial assets held-for-trading and financial assets designated upon initial recognition as FVTPL. Financial assets are classified as held-for-trading if they are acquired for the purpose of selling or repurchasing in the near term. This category includes derivative financial instruments entered into that are not designated as hedging instruments in hedge relationships as defined by IAS 39.

Financial assets at FVTPL are carried in the statement of financial position at fair value with changes in the fair value recognized in the statement of comprehensive income. Transaction costs on FVTPL are expensed as incurred.

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Derivatives embedded in host contracts are accounted for as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contracts and the host contracts are not held-for-trading. These embedded derivatives are measured at fair value with changes in fair value recognized in the statement of comprehensive income. Reassessment only occurs if there is a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required.

### RISKS AND UNCERTAINTIES

#### Early Stage Development and Scientific Uncertainty

3DS's Tests are at an early stage of development. Significant additional investment in research and development, test validation, technology transfer to manufacturing, production scale-up, manufacturing, clinical testing and regulatory submissions of such Tests is required prior to commercialization. There can be no assurance that any such Tests will actually be approved. The development and regulatory processes may require access to inputs and resources or the achievement of certain outcomes which may not be available to the Company in sufficient amounts or in a timely fashion to allow the Company to complete the development or receive regulatory approval of any product or process. A commitment of substantial time and resources is required to conduct research and clinical trials if the Company is to complete the development of any Test or process. It is not known whether any of these Test or process candidates will meet applicable health regulatory standards and obtain required regulatory approvals, whether such Tests can be produced in commercial quantities at reasonable costs and be successfully marketed or if the Company's investment in any such Tests will be recovered through sales or royalties.

#### No Assurance of Successful Deployment of Tests

The Company must demonstrate each Test's safety and efficacy in humans through extensive clinical testing. Safety in humans is not an issue or concern in the case of the current Tests because they are non-invasive and performed on blood or tissue samples provided by patients. Questions about general safety must be addressed in any and every application for approval. One of the principle objectives of clinical trials is to show efficacy; that a Test reliably provides accurate and useful information. The Company may experience numerous unforeseen events during, or as a result of, the testing process that could delay or prevent the commercialization of any Tests, including the following: decreased demand for the Tests; impairment of business reputation; withdrawal of clinical trial participants; costs of related litigation and substantial monetary awards to patients or other claimants; loss of revenues; and the inability to commercialize the Tests.

#### Negative Cash Flow from Operations

The Company has continued negative cash flow from operations. The Company anticipates having negative cash flows in future periods and, accordingly, the Company may be required to raise additional funds through the issuance of additional securities to satisfy the Company's general working capital requirements.

The Company expects to continue to incur net losses unless and until such time as one or more of its Tests enter into commercial production and generate sufficient revenue to fund continuing operations, or until such time as the Company is able to offset its expenses against the sale of one or more of its Tests, if applicable. The development of the Company's Tests to commercialization will require the commitment of substantial financial resources. The amount and timing of such expenditures will depend on a number of factors, including the results of the Company's current and future studies and clinical trials, the ability of the Company to receive third party and regulatory approvals of its Tests, the rate at which operating losses are incurred and the execution of any sale or licensing agreements with strategic partners, some of which are beyond the Company's control. There is no assurance that the Company will be profitable in the future.

#### Expense Reduction Efforts

## Management's Discussion and Analysis

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The Company intends to implement certain expense reduction measures to reduce general and administrative expenditures with the goal of increasing efficiencies across its organization. There can be no assurance that these expense reduction efforts will be achieved or will be otherwise successful. As a result, the Company may need to implement further cost reduction efforts across its operations, including suspending or curtailing planned programs and activities, which could materially affect its business, results of operations and future prospects, or complete future equity financings, which may result in dilution to existing shareholders.

### **Dependence on Collaborative Partners, Licensors and Others**

The Company's activities will require it to enter into various arrangements with corporate and academic collaborators, licensors, licensees and others for the research, development, clinical testing, manufacturing, marketing and commercialization of its Tests. 3DS intends to attract corporate partners and enter into additional research collaborations. There can be no assurance, however, that the Company will be able to establish such additional collaborations on favourable terms, if at all, or that its current or future collaborations will be successful. Failure to attract commercial partners for the provision of its Tests to patients may result in the Company incurring substantial clinical testing, manufacturing and commercialization costs prior to realizing any revenue from test sales or result in delays or program discontinuance if funds are not available in sufficient quantities.

Should any collaborative partner fail to develop, manufacture or commercialize successfully any Test to which it has rights, or any partner's Test to which the Company may have rights, the Company's business may be adversely affected. The failure of a collaborative partner to continue to participate in any particular program could delay or halt the development or commercialization of Tests generated from such program. In addition, there can be no assurance that the collaborative partners will not pursue other technologies or develop alternative tests, either alone or in collaboration with others, including the Company's competitors, as a means for developing treatments for the diseases targeted by the Company's programs.

### **Clinical Trials Recruitment**

Clinical trials for 3DS's Tests require that 3DS identify and procure patient samples for retrospective analysis or enroll patients with the disease under investigation. 3DS may not be able to access sufficient patient samples for retrospective analysis or enroll a sufficient number of patients to complete the clinical trials in a timely manner. Procuring samples and patient enrollment is a function of many factors including, but not limited to, design of the study protocol, size of the patient population, eligibility criteria for the study, the perceived risks and benefits of the therapy under study, the patient referral practices of physicians and the availability of clinical trial sites. If 3DS has difficulty procuring patient samples or enrolling a sufficient number of patients to conduct the clinical trials as planned, 3DS may need to delay or terminate ongoing clinical trials.

### **Uncertainties Related to Clinical Trials and Test Development**

There is no assurance that the Company's R&D programs will result in commercially viable Tests and in the commercially viable provision of Tests to patients. To achieve profitable operations, 3DS must successfully develop, out-license, gain regulatory approval and market its proposed Tests. To obtain regulatory approvals for the Tests being developed and to achieve commercial success, clinical trials must demonstrate that the Tests are reliable for human use and that they demonstrate reproducible outcomes in terms of accuracy and specificity. The Company can make no assurances that any future Tests or clinical trials, if undertaken, will yield favorable results.

### **Development Costs and Timing**

The Company may be unable to initiate or complete the development of its Tests on the Company's currently expected timeline, or at all. The timing for the completion of the studies for the Company's Tests will depend on the Company's ability to secure funding for these studies and Tests, which, in the case of the Company's myeloma and lung cancer studies, will require funding beyond the Company's existing

## **Management's Discussion and Analysis**

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cash and cash equivalents and the net proceeds from any future equity offerings. In addition, if regulatory authorities require additional time or studies to assess the safety or efficacy of the Tests, the Company may not have or be able to obtain adequate funding to complete the necessary steps for the approval of its Tests. Additional delays may result if regulatory authorities recommend non-approval or place restrictions on approval. Moreover, the Company may experience delays, or be unable to commence clinical trials or studies, as a result of delays in obtaining approvals from applicable hospital ethics committees and internal review boards, or the failure of such bodies to provide such approvals.

Studies required to demonstrate the safety and efficacy of the Company's Tests are time consuming, expensive and together take many years to complete. In addition, approval policies, regulations or the type and amount of clinical data necessary to gain approval may change during the course of the Tests' clinical development and may vary among jurisdictions. The Company has not obtained regulatory approval for its Tests and it is possible that none of its Tests or any test it seeks to develop in the future will ever obtain regulatory approval. Delays in regulatory approvals or rejections of applications for regulatory approval in Canada, the United States, Europe and other markets may result from a number of factors, many of which are outside the Company's control.

The lengthy and unpredictable approval process, as well as the unpredictability of future clinical trial results, may result in the Company's failure to obtain regulatory approval to market any of its Tests, which would significantly harm the Company's business, results of operations and prospects.

### **Lack of Demand**

A failure in the demand for 3DS's Tests to materialize as a result of competition, technological change or other factors could have a material adverse effect on the business, results of operations and financial condition of the Company.

### **Additional Financing Requirements and Access to Capital**

The ongoing economic slowdown and downturn of global capital markets has generally made the raising of capital by equity or debt financing more difficult. Access to financing has been negatively impacted by ongoing global economic risks. The Company will require substantial additional funds for further research and development, planned clinical testing, regulatory approvals, the establishment of manufacturing capabilities and, if necessary, the marketing and sale of its Tests. The Company may attempt to raise additional funds for these purposes through public or private equity or debt financing, collaborations with other therapeutic companies, government grants or other sources. There can be no assurance that additional funding or partnerships will be available on terms acceptable to the Company and which would foster the successful commercialization of the Company's Tests. If additional funds are raised through further issuances of equity or convertible debt securities, existing shareholders could suffer significant dilution, and any new equity securities issued could have rights, preferences and privileges superior to those of the Company's Common Shares. Any debt financing secured in the future could involve restrictive covenants relating to capital raising activities and other financial and operational matters, which may make it more difficult for the Company to obtain additional capital or to pursue business opportunities, including potential acquisitions. If adequate funds are not obtained, the Company may be required to reduce, curtail or discontinue operations.

### **Reliance on Key Personnel**

The Company is dependent on certain members of its management and scientific staff as well as consultants and contractors, the loss of services of one or more of whom could adversely affect the Company. The contributions of the existing management team to the immediate and near term operations of the Company are likely to be of central importance. In addition, the Company's ability to manage growth effectively will require it to continue to implement and improve its management systems and to recruit and train new employees. There can be no assurance that the Company will be able to successfully attract and retain skilled and experienced personnel. In addition, an inability to hire, or the

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increased costs, of new personnel including members of executive management, could have a material adverse effect on the Company's business, financial condition and results of operations.

### Use of Proceeds

Although the Company has set out its intended use of proceeds in its press releases, these intended uses are estimates only and subject to change. While management does not contemplate any material variation, management does retain broad discretion in the application of such proceeds. The failure by the Company to apply these funds effectively could have a material adverse effect on the Company's business, including the Company's ability to achieve its stated business objectives.

### Competition

The biotechnology industry is highly competitive, and includes companies with significantly greater financial, technical, human, research and development and marketing resources than 3DS. There are companies that compete with 3DS's efforts to discover, validate and commercialize diagnostic and prognostic Tests. 3DS's competitors may discover and develop products in advance of 3DS or products that are more effective than those developed by 3DS. As a consequence, 3DS's current and future technologies and Tests may become obsolete or uncompetitive, resulting in adverse effects on revenue, margins and profitability. Potential competitors of the Company have or may develop product development capabilities or financial, scientific, marketing and human resources exceeding those of the Company. The Company believes that its ability to compete effectively depends upon many factors both within and beyond the Company's control, including:

- the usefulness, ease of use, performance and reliability of 3DS's Tests compared to its competitors;
- the timing and market acceptance of 3DS's Tests, including developments and enhancements to 3DS's Tests;
- 3DS's ability to monetize its Tests;
- the selection of licensing partners for its Tests with the necessary skills and resources to drive uptake;
- 3DS's marketing and selling efforts;
- 3DS's financial condition and results of operations;
- changes mandated by legislation, regulatory authorities or litigation;
- acquisitions or consolidations within 3DS's industry, which may result in more formidable competitors;
- 3DS's ability to attract, retain and motivate talented employees;
- 3DS's ability to cost-effectively manage and grow its operations; and
- 3DS's reputation and brand strength relative to that of its competitors.

### Slow Acceptance of Tests

The marketplace may be slow to accept or understand the significance of the Company's technology due to its unique nature and the competitive landscape. If the Company is unable to promote, market and sell its Tests and secure relationships with partners and purchasers, the Company's business and financial condition will be adversely affected.

### Lack of Test Revenues and History of Losses

To date, 3DS has not recorded any revenues. 3DS expects to incur additional losses during the periods of research and development, clinical testing and application for regulatory approval of its proposed Tests. The Company will incur losses unless and until such time as payments from corporate collaborations, Test sales or royalty payments generate sufficient revenues to fund its continuing operations.

### Limited Operating History

The Company has a limited operating history and, in particular, no history of revenue generation. The Company was incorporated on May 25, 2011 and has yet to generate a profit from its operating activities.



## **Management's Discussion and Analysis**

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The Company is subject to all of the business risks and uncertainties associated with any new business enterprise, including the risk that it will not achieve its growth objective. Although the Company anticipates earning revenue in the future, it will also incur substantial expenses in the establishment of its business.

To the extent that such expenses do not result in revenue gains that are adequate to sustain and expand its business, the Company's long-term viability may be materially and adversely affected.

### **Government Regulations**

Biotechnology companies operate in a high-risk regulatory environment. The development and sale of diagnostic and prognostic tests is governed by numerous statutes and regulations in the United States, Canada and other countries where the Company intends to market its Tests. The subject matter of such legislation includes controlled research and testing procedures, the production of preclinical and clinical data prior to marketing approval as well as regulation of marketing activities, notably advertising and labelling.

The process of completing clinical testing and obtaining required approvals is likely to take several years and require the expenditure of substantial resources. Furthermore, there can be no assurance that regulators will not require modification to any submissions which may result in delays or failure to obtain regulatory approvals. Any delay or failure to obtain regulatory approvals could adversely affect the ability of the Company to utilize its technology, thereby adversely affecting operations. There is no assurance that the Company will be able to timely and profitably provide its Tests while complying with all of the applicable regulatory requirements.

### **Rapid Technological Change**

The biotechnology industry is characterized by rapid and substantial technological change. There can be no assurance that developments by others will not render the Company's proposed Tests or technologies noncompetitive, or that the Company will keep pace with technological developments. Competitors have developed or are developing technologies that could be the basis for competitive tests. In addition, alternative forms of diagnosis and prognosis may be competitive with the Company's Tests.

There is no assurance that the Company will earn profits in the future, or that profitability will be sustained. There is no assurance that future revenues will be sufficient to generate the funds required to continue the Company's business development and marketing activities. If the Company does not have sufficient capital to fund its operations, it may be required to reduce its sales and marketing efforts or forego certain business opportunities.

### **Software**

The Company's Tests incorporate software that is highly technical and complex. The Company's software may now or in the future contain undetected errors, bugs or vulnerabilities. Some errors in the Company's software codes may only be discovered after the codes have been released. Any errors, bugs or vulnerabilities discovered in the Company's codes after release could result in damage to the Company's reputation, loss of users, loss of revenue or liability for damages, any of which could adversely affect the Company's business and financial results.

### **Risks Associated with International Operations**

The Company intends to market and distribute its Tests and services in Canada and the United States and may distribute its Tests and services in other markets. There are inherent risks in operating in different geographic markets including but not limited to (i) differing laws governing the importation, marketing and distribution of the Company's Tests or services; (ii) risks associated with exchange rate differentials across the Company's markets, which can lead to fluctuations in demand, revenue and net income; and (iii) differing levels of consumer, business and overall market acceptance of the Company's



## **Management's Discussion and Analysis**

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brand, Tests or services and the demand for the foregoing. The foregoing risks could have an adverse effect on the operations, strategy, business and profitability of the Company.

### **No Assurance of Active Trading Market**

There can be no assurances that an active trading market in the Company's Common Shares on the markets through which the Common Shares trade will be sustained.

### **Value of Securities**

The value of the Company's Common Shares may be reduced for a number of reasons, many of which are outside the control of the Company, including:

- general economic and political conditions in Canada, the United States and globally;
- governmental regulation of the biotechnology, health care and pharmaceutical industries;
- the failure to achieve desired outcomes by the Company or its collaborators;
- the failure to obtain industry partner and other third party consents and approvals, when required;
- stock market volatility and market conditions;
- competition for, among other things, capital and skilled personnel;
- the need to obtain required approvals from regulatory authorities;
- revenue and operating results failing to meet expectations in any particular period;
- investor perception of the biotechnology, health care and pharmaceutical industries;
- limited trading volume of the Company's Common Shares;
- announcements relating to the Company's business or the businesses of the Company's competitors; and
- the Company's ability or inability to raise additional funds.

### **Dilution to Shareholders**

3DS has granted in the past, and may grant in the future, to some or all directors, officers, employees and consultants, options to purchase Common Shares and other stock-based awards as non-cash incentives to those persons, and has issued, and may issue in the future, Common Share purchase warrants in the course of financings. The issuance of Common Shares upon the exercise of the Company's outstanding stock options and Common Share purchase warrants will result in dilution to the interests of shareholders, and may reduce the trading price of the Common Shares. Moreover, the issuance of additional stock options or Common Share purchase warrants, and the exercise of these securities for Common Shares, may have an adverse effect on the interests of shareholders and the market price of the Common Shares.

Any additional issuance of Common Shares or a decision to acquire other businesses through the sale of equity securities may dilute investors' interests, and investors may suffer dilution in their net book value per Common Share depending on the price at which such securities are sold. Such issuances may cause a reduction in the proportionate ownership and voting power of all other shareholders. The dilution may result in a decline in the price of the Company's Common Shares.

### **Litigation**

The Company or its directors and officers may be subject to a variety of civil or other legal proceedings, with or without merit. From time to time in the ordinary course of its business, the Company may become involved in various legal proceedings, including commercial, employment and other litigation and claims, as well as governmental and other regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources and cause the Company to incur significant expenses. Furthermore, because litigation is inherently unpredictable, the results of any such actions may have a material adverse effect on the Company's business, operating results or financial condition.

### **Protection of Intellectual Property Rights**

There is no guarantee that 3DS's patent rights comprise all of the rights that the Company needs to be entitled to freely use and commercialize its Tests. If third party patents or patent applications contain

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claims infringed by the Company's technology and these claims are valid, 3DS may be unable to obtain licenses to these patents at a reasonable cost, if at all, and may also be unable to develop or obtain alternative technology. If such licenses cannot be obtained at a reasonable cost, the business could be significantly impacted. Further, the enforceability of the patents owned by the Company may be challenged and the Company's patents could be partially or wholly invalidated following challenges by third parties.

If a third party accuses the Company of infringing its intellectual property rights, or if a third party commences litigation against the Company for the infringement of patent or other intellectual property rights, the Company may incur significant costs in defending such action, whether or not it ultimately prevails. Typically, patent litigation in the pharmaceutical and biotechnology industry is expensive. Costs that the Company incurs in defending third party infringement actions would also include the diversion of management's and technical personnel's time. In addition, parties making claims against the Company may be able to obtain injunctive or other equitable relief that could prevent the Company from further developing discoveries or commercializing its Tests. In the event of a successful claim of infringement against the Company, it may be required to pay damages and obtain one or more licenses from the prevailing third party. If it is not able to obtain these licenses at a reasonable cost, it could encounter delays in Test introductions and the loss of substantial resources while it attempts to develop alternative Tests. Defense of any lawsuit or failure to obtain any of these licenses could prevent the Company or its partners from commercializing available Tests and could cause it to incur substantial expenditure. The Company also relies on its trade secrets, which include information relating to the manufacture, development and administration of its Tests. The protective measures that the Company employs may not provide adequate protection for its trade secrets. This could erode the Company's competitive advantage and materially harm its business. The Company cannot be certain that others will not independently develop the same or similar technologies on their own, gain access to trade secrets, disclose such technology or that the Company will be able to meaningfully protect its trade secrets and unpatented knowhow and keep them secret.

### **Reliance on Third Parties**

The Company will rely on independent clinical investigators, contract research organizations and other third-party service providers to assist it in managing, monitoring and otherwise carrying out clinical trials. 3DS is reliant on or has contracted with, and plans to continue to contract with, certain third parties to provide certain services, including site selection, enrolment, monitoring and data management services. Although 3DS depends heavily on these parties, 3DS does not control them and, therefore, cannot be assured that these third parties will adequately perform all of their contractual obligations to 3DS. If 3DS's third-party service providers cannot adequately fulfill their obligations to 3DS on a timely and satisfactory basis, if the quality or accuracy of clinical trial data is compromised due to failure by third parties to adhere to 3DS's protocols or regulatory requirement or if such third parties otherwise fail to meet deadlines, 3DS's development plans may be delayed or terminated.

### **No Sales, Marketing or Distribution Experience**

3DS has limited sales, marketing or distribution experience. The Company intends to rely heavily on third parties to launch and market its Tests, if approved. However, if the Company elects to develop internal sales, distribution and marketing capabilities, it will need to invest significant financial and management resources. For Tests where the Company decides to perform sales, marketing and distribution functions itself, the Company could face a number of additional risks, including: (i) that it may not be able to attract and build a significant marketing or sales force; (ii) that the cost of establishing a marketing or sales force may not be justifiable in light of the revenues generated by any particular Test; and (iii) that direct sales and marketing efforts may not be successful. If the Company is unable to develop its own sales, marketing and distribution capabilities, it will not be able to successfully commercialize its Tests, if approved, without reliance on third parties.

### **Potential Product Liability**

## **Management's Discussion and Analysis**

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There is no assurance that unforeseen adverse events or defects will not arise in the Company's Tests. Adverse events could expose the Company to product liability claims or litigation, resulting in the removal of the regulatory approval for the relevant Tests or monetary damages being awarded against the Company. In such event, the Company's liability may exceed the Company's insurance coverage.

### **Volatility of Share Price, Absence of Dividends and Fluctuation of Operating Results**

Market prices for the securities of biotechnology companies, including diagnostic and prognostic product companies, have historically been highly volatile. Factors such as the fluctuation of the Company's operating results, announcements of technological innovations, patents or new commercial products by the Company or its competitors, results of clinical testing, regulatory actions or public concern over the safety of therapeutic products and other factors could have a significant effect on the share price or trading volumes for the Company's Common Shares. 3DS has not paid dividends to date and does not expect to pay dividends in the foreseeable future.

### **Conflict of Interest**

Certain of the directors and senior officers of the Company may, from time to time, be employed by or affiliated with organizations which have entered into agreements or will enter into agreements with 3DS. As disputes may arise between these organizations and 3DS, or certain of these organizations may undertake or have undertaken research with competitors of 3DS, there exists the possibility for such persons to be in a position of conflict. Any decision or recommendation made by these persons involving 3DS will be made in accordance with his or her duties and obligations to deal fairly and in good faith with 3DS and such other organizations. In addition, as applicable, such directors and officers will refrain from voting on any matter in which they have a conflict of interest.

### **Reporting Issuer Status**

As a reporting issuer, the Company is subject to reporting requirements under applicable securities law and stock exchange policies. Compliance with these requirements increases legal and financial compliance costs, makes some activities more difficult, time consuming and costly and increases demand on existing Company systems and resources. Among other things, the Company is required to file annual, quarterly and current reports with respect to its business and results of operations and maintain effective disclosure controls and procedures and internal controls over financial reporting. In order to maintain and, if required, improve disclosure controls and procedures and internal controls over financial reporting to meet this standard, significant resources and management oversight may be required. As a result, management's attention may be diverted from other business concerns, which could harm the Company's business and results of operations. The Company may need to hire additional employees to comply with these requirements in the future, which would increase its costs and expenses.

### **Use and Storage of Personal Information and Compliance with Privacy Laws**

The Company may receive, store and process personal information and other customer or patient data, including addresses, telephone numbers and images of government identification. As a result, the Company must comply with the numerous federal, provincial and local laws in Canada and abroad relating to the collection, use, disclosure, storage and safeguarding of personal information. Any failure or perceived failure by the Company to comply with its privacy policies, privacy-related obligations to customers or other third parties or privacy-related legal obligations, or any compromise of security that results in the unauthorized release or transfer of personally identifiable information or other customer data, may result in governmental enforcement actions, fines or litigation.

### **Forward-Looking Statements May Prove Inaccurate**

Investors are cautioned not to place undue reliance on forward-looking information. By its nature, forward-looking information involves numerous assumptions, known and unknown risks and uncertainties, of both a general and specific nature, that could cause actual results to differ materially from those suggested by the forward-looking information or contribute to the possibility that predictions, forecasts or projections will prove to be materially inaccurate.



**3D SIGNATURES**

## **Management's Discussion and Analysis**

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### **ADDITIONAL INFORMATION**

Additional information relating to the Company can be found on SEDAR at [www.sedar.com](http://www.sedar.com).