

# **Gemina Laboratories Ltd.**

Management Discussion and Analysis  
(in Canadian dollars)

**For the quarter and six months ended July 31, 2022**

# **Gemina Laboratories Ltd.**

## **Management Discussion and Analysis**

### **For the quarter and six months ended July 31, 2022**

---

This management discussion and analysis (“**MD&A**”) should be read in conjunction with the unaudited condensed interim consolidated financial statements and notes of Gemina Laboratories Ltd. (“Gemina” or the “**Company**”) for quarter ended July 31, 2022. Our unaudited condensed interim consolidated financial statements are prepared in accordance with International Financial Reporting Standards (“**IFRS**”) as issued by the International Accounting Standards Board (“**IASB**”) and all dollar amounts are expressed in Canadian dollars unless otherwise noted. In this discussion, unless the context requires otherwise, references to “we” or “our” are references to Gemina. Additional information relating to our Company, including Annual Information Form (“**AIF**”) dated May 30, 2022, is available by accessing the SEDAR website at [www.sedar.com](http://www.sedar.com).

All information contained in this MD&A is current as of September 29, 2022, unless otherwise stated.

### **Forward Looking Statements**

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. 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 Gemina as of the date of such statements, are inherently subject to significant 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 any regulatory approvals; (ii) assumptions regarding general business and economic conditions; (iii) the Company’s ability to successfully develop its products; (iv) that the Company’s current positive relationships with third parties will be maintained; (v) the availability of financing on reasonable terms; (vi) the Company’s ability to attract and retain skilled employees and consultants; (vii) assumptions regarding market competition; (viii) the products and technology offered by the Company’s competitors and (ix) 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 under the heading “*Risk Factors*” in the Company’s AIF filed on SEDAR ([www.SEDAR.com](http://www.SEDAR.com)). Should one or more of these risks or uncertainties, or a risk that is not currently known to us, materialize, or should assumptions underlying those forward-looking statements prove incorrect, actual results may vary materially from those described herein. These forward-looking statements 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.

# Gemina Laboratories Ltd.

## Management Discussion and Analysis

For the quarter and six months ended July 31, 2022

---

### 1 Overview of the Company

Gemina Laboratories Ltd. (the “Company” or “Gemina”) operates under the name “Gemina Labs.” The Company was incorporated under the laws of British Columbia on October 10, 2017. On February 10, 2021, the Company changed its name from “D1 Capital Corp.” to “Gemina Laboratories Ltd.”. The Company’s head office is located at Unit 302 - 3600 Gilmore Way, Burnaby, BC, Canada, V5G 4W8, and its registered and records is located at 10th floor, 595 Howe Street, Vancouver, British Columbia.

Gemina is a biotechnology company that currently operates in the In Vitro Diagnostics (“**IVD**”) and human wellness monitoring markets. The Company endeavors to develop novel surface functionalization chemistries for the detection of pathogens and biomarkers (the “**Gemina Surface Chemistry**”). The near-term application of the Gemina Surface Chemistry is in point-of-care diagnostics. The company focus on infectious respiratory diseases and the recovery from them. In particular, the Company has developed a first-generation technology (the “**Generation 1 Technology**”), which it has included within an initial demonstration product namely: a point-of-care lateral flow assay to test whether or not a person is currently infected with COVID-19 (the “**Legio-X™ COVID Rapid Antigen Test**”). In the longer term, the Company believes the Gemina Surface Chemistry may have application beyond human health, for instance: the detection of biomarkers for human wellness monitoring, and the detection of pathogens in the built environment, to food and potable water safety and in veterinary medicine.

### 2 Recent Developments

#### Products

##### **LEGIO-X™ COVID RAPID ANTIGEN TEST**

The Company’s first product under development is the Legio-X™ COVID Rapid Antigen Test. This Point of Care (“**POC**”) COVID Rapid Antigen Test is based on embedding the Gemina Surface Chemistry in a lateral flow assay test strip and will be designed for the purposes of testing whether or not a person is currently infected with COVID-19. Generally speaking, an antigen test is designed to confirm whether a pathogen is present in the subject to a detectable level, providing a very good indication of infection. Unlike nucleic acid-based tests such as PCR, which detect the presence of genetic material, the Company’s POC COVID Antigen Test detects a protein found on the surface of the COVID-19 virus.

Gemina achieved prototype design freeze for its POC COVID Antigen Test at the end of June 2021 and subsequently transferred the program to its manufacturing partner, IPOC, for Phase 1 manufacturability testing. As the Company announced in September 2021, Phase 1 results indicate that IPOC was able to repeatedly detect 1 ng/mL of SARS-CoV-2 N protein in pooled human saliva. This result confirms earlier independent laboratory results with Gemina’s POC COVID Antigen Test indicating the company was able to reliably detect recombinant SARS-CoV-2 nucleocapsid in saliva and nasal fluid samples with significantly higher sensitivity when compared with a panel of seven leading commercial rapid antigen tests (Lancet – Corman, et al. 2021). The low level of detection achieved in this test is five times better than the market leading tests evaluated in the Lancet study.

In the context of testing for viruses (like COVID-19), lower limit of detection will allow for earlier and more reliable detection of the virus in patient samples. Since airborne transmission plays a critical role in the distribution of the COVID-19 virus, having access to early, reliable, and cost-effective detection plays a critical role as a public health measure to control or limit the chains of infection, and prevent or reduce viral spread.

In February 2022, the Company froze the design of this prototype for shallow nasal swab testing. In early May 2022, the Company announced the results of sensitivity and specificity trials of this test, utilizing more

# **Gemina Laboratories Ltd.**

## **Management Discussion and Analysis**

### **For the quarter and six months ended July 31, 2022**

---

than 500 human clinical samples. This successful development culminated in the CE Mark being granted for the European Union in late May 2022. This product is currently being transferred to full scale manufacturing.

#### **A Lateral Flow Assay Family**

The Company's second research and development programme commenced in late 2020 and focuses on the implementation of subsequent generations of the Gemina Surface Chemistry into lateral flow assay architectures. The Company believes that this is a significant step in demonstrating the broad applicability of the Gemina Surface Chemistry and has the potential to lead to the rapid development of a "family" of POC lateral flow assay tests. The Company announced that it had launched the first of these development programmes, a Flu A/B test, on 28 April 2022.

#### **Products Beyond Lateral Flow**

The Company continues to actively explore opportunities (both within and outside Canada) to launch research and development programmes that extend use-cases for the Gemina Surface Chemistry above and beyond today's available lateral flow assay test strips.

#### **Products for non-IVD markets**

The Company has started to evaluate the human wellness market: namely whether, in addition to the development of medical diagnostic tests for the IVD market, the Gemina Surface Chemistry supports applications in human wellness monitoring (e.g. fatigue, stress monitoring).

#### **TestPoint software**

The Company continues to believe that the future of biosensing will require physical biosensing technologies to be integrated into digital data architectures. Accordingly, the Company has developed the first version of TestPoint, a COVID 19 risk assurance software platform, that has been designed to enable public and private sector organizations to securely and privately record the results of their COVID 19 testing. The development of TestPoint was supported by Canada's Digital Technology Supercluster, via a \$990,000 consortium-based project, led by the Company. The master project agreement (the "**Master Project Agreement**") relating to the TestPoint project was entered into in August 2020 and is summarised under "Contracts" in the AIF.

#### **Personnel**

On September 1<sup>st</sup>, 2022 Brian Firth, an accomplished diagnostic industry executive, was appointed as the Company's new Chief Executive Officer. Founding CEO John Davies was appointed as Chairman of the Board of Directors. The appointment of Mr. Firth concluded a multi-month process initiated by the Board to identify candidates with specific industry experience and proven capabilities to lead Gemina's development, as it transitions from a wholly R&D focused company into a revenue and growth-oriented business.

Mr. Firth brings to Gemina an enviable international career, focused on healthtech, specifically point-of-care diagnostics. He spent nearly 8 years at Swiss Precision Diagnostics, one of the world's leading point-of-care diagnostics companies, with operations in more than 50 countries. Swiss Precision Diagnostics is the manufacturer of the globally recognised and market leading Clearblue family of pregnancy and fertility monitoring point-of-care tests. Brian acted as Managing Director of Swiss Precision Diagnostics' UK subsidiary before becoming Chief Operating Officer of Swiss Precisions Diagnostic GmbH (the parent company) in Geneva Switzerland. At Swiss Precision, Brian was responsible for a broad range of business processes including quality management, human resources, regulatory affairs, customer service and research leadership. Swiss Precision is jointly owned by Procter & Gamble and Abbott Laboratories.

# **Gemina Laboratories Ltd.**

## **Management Discussion and Analysis**

### **For the quarter and six months ended July 31, 2022**

---

#### **Financing**

During the quarter ended July 31, 2022, the Company closed two equity offerings: a brokered, prospectus supplement offering on June 30, 2022 ("Prospectus Offering"), and a non-brokered private placement on July 11, 2022 ("Private Placement Offering"). The terms of both offerings were identical.

Under the Prospectus Offering, the Company issued 5,626,735 Units at \$0.60 per Unit for gross proceeds \$3,376,041 and under the Private Placement Offering the Company issued 1,536,200 Units at \$0.60 per Unit for gross proceeds of \$921,720.

Each Unit consisted of one common share and one warrant to purchase a common share at \$0.80 with a term of 5 years from the date of closing, subject to acceleration in certain circumstances. The acceleration clause allows the Company to accelerate the expiry date of the share purchase warrants in the event that the volume weighted average trading price of the common shares on the Canadian Securities Exchange exceeds \$1.20 for 10 consecutive trading days.

The aggregate gross proceeds from both offerings, \$4,297,761, was allocated to share capital and reserves based on the relative fair value of the common share and the warrant. The fair value allocation to share capital was \$2,458,285 and to reserves was \$1,839,476. The warrants were fair valued using the Black-Scholes pricing model with the following input assumptions:

Expected life – 5 years  
Risk free interest rate – 3.10-3.16%  
Volatility – 107%  
Dividend yield – nil

In connection with the Prospectus Offerings the Company incurred share issuance costs totalling \$602,134 and issued 393,871 compensation warrants to the brokers. In connection with the Private Placement Offering the Company incurred share issuance costs of \$14,212 and issued 51,356 compensation warrants to finders.

The compensation warrants allow the holders to purchase common shares for an exercise price of \$0.60 and expire five years from the date of closing. The compensation warrants were valued using a Black-Scholes pricing model with the following input assumptions:

Expected life – 5 years  
Risk free interest rate – 3.10-3.16%  
Volatility – 107%  
Dividend yield – nil

The aggregate fair value of the compensation warrants was \$205,362 and was recorded as share issuance costs and presented as a reduction in share capital and an increase in reserves.

### **3 Selected Financial Information**

The financial information reported here-in has been derived from the interim condensed consolidated financial statements prepared in accordance with IFRS as issued by the IASB. The Company uses the Canadian dollar as its functional and presentation currency. From time to time, the Company may deal with several research and development contractors, consultants and suppliers in other countries. Our financial results may be subject to fluctuations between the Canadian dollar and other international currencies.

## Gemina Laboratories Ltd.

### Management Discussion and Analysis

For the quarter and six months ended July 31, 2022

---

The table below sets forth unaudited quarterly results prepared by management for the eight previous quarters to July 31, 2022:

	July 31, 2022	April 30, 2022	January 31, 2022	October 31, 2021
Research and development expenses	\$1,567,560	\$577,975	\$656,302	\$804,286
General and administration expenses	\$422,653	\$203,200	\$651,317	\$715,073
Loss and comprehensive loss	\$1,990,213	\$781,175	\$1,307,619	\$1,519,359
Basic and diluted loss per share	\$0.03	\$0.01	\$0.02	\$0.03

	July 31, 2021	April 30, 2021	January 31, 2021	October 31, 2020
Research and development expenses	\$567,505	\$682,170	\$184,586	\$127,644
General and administration expenses	\$200,410	\$462,880	\$102,402	\$37,410
Transaction expenses	-	-	\$329,438	-
Loss and comprehensive loss	\$767,915	\$1,145,050	\$616,426	\$165,054
Basic and diluted loss per share	\$0.02	\$0.03	\$0.02	\$0.00

The following table represents selected financial information for the Company's quarters ended July 31, 2022, and 2021.

**Gemina Laboratories Ltd.**  
**Management Discussion and Analysis**  
**For the quarter and six months ended July 31, 2022**

---

Selected consolidated statement of loss and comprehensive loss:

	Quarter ended July 31, 2022	Quarter ended July 31, 2021	Six months ended July 31, 2022	Six months ended July 31, 2021
Loss and comprehensive loss for the period	\$1,990,213	\$767,915	\$2,771,392	\$1,907,936
Weighted average number of shares outstanding, basic and diluted	57,832,914	43,738,888	56,736,433	42,387,072
Loss per share, basic and diluted	\$0.03	\$0.02	\$0.05	\$0.05

The Company incurred a loss and comprehensive loss for the quarter ended July 31, 2022, of \$1,990,213 (2021 - \$767,915) reflecting net operating expenses for the period.

Selected Consolidated Statement of Financial Position:

	July 31, 2022	January 31, 2022
	\$	\$
Cash	2,953,047	1,156,388
Current assets	3,172,171	1,379,311
Total assets	3,197,914	1,420,142
Current liabilities	1,270,745	470,490
Total liabilities	1,274,541	475,917
Total shareholders' equity	1,923,373	944,225

During the six months ended July 31, 2022, cash increased by \$1,796,659 to \$2,953,047 (January 31, 2022 - \$1,156,388). The increase primarily reflects net proceeds from equity offerings offset by funds used in operations during the period.

Results of Operations:

	Quarter ended July 31, 2022	Quarter ended July 31, 2021	Six months ended July 31, 2022	Six months ended July 31, 2021
	\$	\$	\$	\$
Research and development	(1,567,560)	(567,505)	(2,145,539)	(1,249,675)
General and administrative	(422,653)	(200,410)	(625,853)	(658,261)
Loss and comprehensive loss	(1,990,213)	(767,915)	(2,771,392)	(1,907,936)

# Gemina Laboratories Ltd.

## Management Discussion and Analysis

For the quarter and six months ended July 31, 2022

---

### Operating expenses - Research and Development

Our research and development expenses consist primarily of personnel compensation, research and development contractors, materials and supplies, and intellectual property expenses net of grant funding.

Research and development expenses were \$1,567,560 for the quarter ended July 31, 2022 compared to \$567,505 for the corresponding period last year. The increase in research and development expenses related primarily to higher contract expenses and higher materials and supplies expenses related to the ongoing manufacturing process development work required for full scale manufacturing.

Research and development expenses were \$2,145,539 (net of nil grant funding) for the six-month period ended July 31, 2022, compared to \$1,249,675 (net of \$34,348 in grant funding) in the prior year period. The increase in research and development expenses related primarily to higher contract expenses related to ongoing manufacturing process development required for full scale manufacturing and higher salaries and benefits offset by lower stock-based compensation expense.

During the current period, the Company's activities were focused on developing its products:

- In February 2022, the Company froze the design of this prototype for shallow nasal swab testing. In early May 2022, the Company announced the results of sensitivity and specificity trials of this test, utilizing more than 500 human clinical samples. This successful development culminated in the CE Mark being granted for the European Union in late May 2022.
- Working towards full scale manufacturing with our contract manufacturer.
- The Company has continued its R&D into a family of Lateral Flow Assay tests.
- The Company continued its program to formally evaluate whether the Gemina Surface Chemistry can be applied to develop products in the human wellness monitoring market (in addition to the IVD market).

Looking ahead to 2022, the Company expects to complete the following activities:

- complete development, scale-up manufacturing and to advance commercialization via distribution and licensing agreement for its SARS – CoV-2 rapid test;
- developing product prototypes based on the Lateral Flow Assay Family and similar devices, with prototypes anticipated in 2022; and
- new research and development programs into point of need biosensing devices, compatible with the Gemina Surface Chemistry and distinct from lateral flow assays.

### Operating expenses - General and Administrative

Our general and administration expenses consist primarily of personnel expenses, professional fees and office related expenses.

General and administration expenses for the quarter ended July 31, 2022, were \$422,653 compared to \$200,410 for the corresponding quarter of the prior year. The increase primarily reflects higher contractor and professional fees.

General and administration expenses for the six-month period ended July 31, 2022, were \$625,853 compared with \$658,261 for same period last year. Higher contractor fees in the current six-month



**Gemina Laboratories Ltd.**  
Management Discussion and Analysis  
For the quarter and six months ended July 31, 2022

---

period were offset by lower professional fees and a net recovery for share-based compensation expense.

**4 Liquidity, Capital Resources and Outlook**

	<b>July 31, 2022</b>	<b>January 31, 2022</b>
	<b>\$</b>	<b>\$</b>
Cash	2,953,047	1,156,388
Working capital	1,901,426	908,821
Shareholders' equity	1,923,373	944,225

As at July 31, 2022, the Company had cash \$2,953,047 (January 31, 2022 – \$1,156,388) and net working capital of \$1,901,426 (January 31, 2022 - \$908,821). The increase in the cash balance primarily reflects the cash from financing activities offset by cash used in operations.

**Management of Cash Resources**

The Company uses cash flow forecasts to estimate cash requirements for the ensuing twelve-month period. Based on these requirements, we seek to raise equity capital as required to provide the necessary financial resources for operations, ideally for a minimum of twelve months. The timing of equity financings will depend on market conditions and the Company's cash requirements. The Company's cash flow forecasts are updated on a regular basis to reflect actual cash inflows and outflows so as to monitor the requirements and timing for additional financial resources.

The Company monitors opportunities to raise equity capital and/or secure additional funding through non-dilutive sources such as government grants and additional license agreements. However, it is possible that our cash and working capital position may not be enough to meet our business objectives in the event of unforeseen circumstances.

**Cash Flows for the Quarter Ended July 31, 2022**

*Cash flows used in operations*

Cash flows used in operations for the period was \$1,858,817 compared to \$1,336,406 for the corresponding period in the prior year. In the current period, cash flow used in operations primarily reflect the net loss and comprehensive loss discussed above, adjusted for non-cash items, primarily the add back of stock-based compensation and changes in non-cash working capital.

*Cash flows from/used in financing activities*

Cash from financing activities was \$3,646,476 for the six-month period ended July 31, 2022, compared to \$1,897,345 in the prior year period. In the current period, the cash from financing activities relates to the net proceeds of \$3,681,415 from the equity offerings completed during the quarter. See "Recent Developments Financing".

*Cash flows from/used in investing activities*

Cash from investing activities was \$9,000 related to sub-lease receipts in the current period compared to cash used investing activities in the prior year period of \$9,748 for purchase of equipment.

**Gemina Laboratories Ltd.**  
Management Discussion and Analysis  
For the quarter and six months ended July 31, 2022

---

**5 Going Concern**

The condensed interim consolidated financial statements have been prepared on a going concern basis, which assumes that the Company will be able to continue in operation for the foreseeable future and will be able to realize its assets and discharge its liabilities in the normal course of operations.

The ability of the Company to continue as a going concern is dependent on its ability to generate future cash flows from operations and obtain additional financing. As at July 31, 2022, the Company had working capital of \$1,901,426, had not yet achieved profitable operations and had accumulated deficit of \$8,340,458 since its inception and will require additional funding to maintain its operations. These conditions indicate the existence of a material uncertainty that may cast significant doubt regarding the Company's ability to continue as a going concern.

The condensed interim consolidated financial statements do not give effect to any adjustments, which would be necessary should the Company be unable to continue as a going concern and, therefore, be required to realize its assets and discharge its liabilities in other than the normal course of business and at amounts different from those reflected in the accompanying condensed interim consolidated financial statements. These adjustments could be material.

**6 Long-Term Obligations and Other Contractual Commitments**

**Contractual Commitments**

The Company has entered into a lease agreement with EcoMine, the majority shareholder of the Company, with respect to its office premise in Vancouver, British Columbia. The lease commenced on September 1, 2020, with monthly lease payments of \$5,516 until August 31, 2022. To offset the cost of the lease, the Company entered into a sublease agreement with a third party with respect to its office premise in Vancouver, British Columbia. The lease commenced on September 1, 2020, with monthly lease payments of \$1,500 until August 31, 2022.

**7 Transactions with Related Parties**

Key management personnel are the persons responsible for the planning, directing and controlling the activities of the Company and include both executive and non-executive directors, and entities controlled by such persons. The Company considers all directors and officers of the Company to be key management personnel.

During the six-month periods ended July 31, 2022, and 2021, the Company entered into the following transactions with related parties:

- Paid or accrued contractor fees of \$49,875 (2021 - \$38,125) to a company controlled by the Chief Executive Officer ("CEO") and director of the Company.
- Paid or accrued professional fees of \$24,820 (2021 - \$22,979) to a company controlled by the Chief Financial Officer ("CFO") of the Company and recognized share-based compensation of \$8,292 (2021 - \$24,814) in relation to stock options granted to the CFO.
- Paid or accrued salaries and benefits of \$80,631 (2021 - \$48,401) to the Chief Technology Officer ("CTO") and director of the Company and recognized share-based compensation of \$16,850 (2021 - \$nil) in relation to stock options granted to the CTO and director.
- Recognized share-based compensation of \$35,044 (2021 - \$nil) in relation to stock options granted to directors of the Company.

**Gemina Laboratories Ltd.**  
Management Discussion and Analysis  
For the quarter and six months ended July 31, 2022

---

As at July 31, 2022, \$1,770 (January 31, 2022 - \$nil) was included in accounts payable owing to the CTO and director of the Company in relation to reimbursement of expenses.

As at July 31, 2022, \$43,312 (January 31, 2022 - \$55,188) was included in accounts payable owing to the company controlled by the CEO and director of the Company in relation to advisory fees and \$2,402 was owed to the CEO and director of the Company in relation to reimbursement of expenses.

As at July 31, 2022, \$31,362 (January 31, 2022 - \$5,705) was included in accounts payable owing to the company controlled by the CFO of the Company in relation to professional fees.

As at July 31, 2022, \$nil (January 31, 2022 - \$1,050) was included in receivables due from the company controlled by the CEO and a director of the Company in relation to subscription fees.

As at July 31, 2022, \$17,721 was included in accounts receivable (January 31, 2022 - \$22,221) due from EcoMine, a majority shareholder of the Company.

As at July 31, 2022, \$12,398 was included in accounts payable (January 31, 2022 - \$nil) due to Anodyne Chemistries Inc., a company controlled by directors of the Company.

As part of the equity offerings during the quarter (note 7), officers and directors of the Company purchased 99,666 Units for aggregate proceeds of \$59,800 and a company that controls EcoMine purchased 3,333,300 Units for gross proceeds of \$1,999,980.

## **8 Off Balance Sheet Arrangements**

The Company has no material undisclosed off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on our results of operations or financial condition.

## **9 Critical Accounting Estimates and Judgments**

The preparation of financial statements in compliance with IFRS requires the Company's management to make certain estimates and assumptions that they consider reasonable and realistic. Despite regular reviews of these estimates and assumptions, based in particular on past achievements or anticipations, facts and circumstances may lead to changes in these estimates and assumptions which could impact the reported amount of the Company's assets, liabilities, income and expenses. Actual results may differ from those estimates.

### Significant judgements

*Coronavirus* ("COVID-19") - In March 2020, the World Health Organization declared COVID-19 a global pandemic. This contagious disease outbreak, which has continued to spread, and any related adverse public health developments, has adversely affected workforces, economies, and financial markets globally, potentially leading to an economic downturn. It is not possible for the Company to predict the duration or magnitude of the adverse results of the outbreak and its future potential effect on the Company's business or ability to raise funds.

# Gemina Laboratories Ltd.

## Management Discussion and Analysis

For the quarter and six months ended July 31, 2022

---

### Significant estimates

*Stock-based compensation* - The Company generally utilizes the Black-Scholes option pricing model to determine the fair values of the stock-based payments and warrants issued in unit offerings. The Company uses significant estimate in the evaluation of the input variables in the Black-Scholes calculation which includes: risk free interest rate, expected stock price volatility, expected life and expected dividend yield.

## 10 Financial Instruments and Financial Risk Management

### Fair value

Financial instrument disclosures establish a fair value hierarchy that requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The Company primarily applies the market approach for recurring fair value measurements. This section describes three input levels that may be used to measure fair value:

Level 1 – unadjusted quoted prices in active markets for identical assets or liabilities. An active market for the asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide information on an ongoing basis.

Level 2 – quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 – unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The carrying values of cash, receivables, net investment in sublease and accounts payable and accrued liabilities approximate their fair values due to their short-term maturity. The carrying values

**Gemina Laboratories Ltd.**  
Management Discussion and Analysis  
For the quarter and six months ended July 31, 2022

---

of lease liabilities approximate their fair values due to being discounted with a rate of interest that approximates market rates.

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates and interest rates, will affect the Company's income or valuation of its financial instruments.

a) Foreign exchange risk

Foreign exchange risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Company's foreign exchange risk is not considered significant.

b) Interest rate risk

The Company has cash balances and no interest-bearing debt. The interest rate risk on cash is not considered significant.

Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in raising funds to meet cash flow requirements associated with financial instruments. As indicated in Note 1, a material uncertainty exists that may cast significant doubt regarding the Company's ability to continue as a going concern.

The Company continues to manage its liquidity risk by monitoring its cash flows regularly, comparing actual results with budgets and future cash requirements.

The following table summarizes the relative maturities of the financial liabilities of the Company:

	<b>Maturity less than one year</b>	<b>Maturity greater than one year</b>
	<b>\$</b>	<b>\$</b>
Accounts payable and accrued liabilities	1,262,075	-
Lease liabilities	8,670	3,796
<b>Total</b>	<b>1,270,745</b>	<b>3,796</b>

Credit risk

Credit risk is risk of financial loss to the Company if a counterparty to a financial instrument fails to meet its contractual obligations. The Company's cash is held in large Canadian financial institutions

**Gemina Laboratories Ltd.**  
Management Discussion and Analysis  
For the quarter and six months ended July 31, 2022

---

and its receivables mostly consist of amounts due from the Canadian government. As such, the Company determined that it is not exposed to significant credit risk.

**11 Risks and Uncertainties**

The primary risk factors affecting the Company are set forth in our AIF dated May 30, 2022. A copy of our AIF available on SEDAR at [www.sedar.com](http://www.sedar.com).

**12 Outstanding Share Capital**

As at the date of this MD&A, the Company had the following common shares, warrants and stock options outstanding:

Common shares

There were 62,765,927 common shares issued and outstanding.

Warrants

<u>Number of Warrants</u>	<u>Exercise Price</u>	<u>Expiry Date</u>
2,000,001	\$0.15	December 31, 2022*
4,000,000	\$0.15	March 5, 2023
3,882,562	\$0.45	July 16, 2024*
2,015,850	\$0.80	October 22, 2023**
291,136	\$0.55	October 22, 2023**
5,626,735	\$0.80	June 30, 2027***
393,871	\$0.60	June 30, 2027***
1,536,200	\$0.80	July 11, 2027***
51,356	\$0.60	July 11, 2027***
<hr/> 19,797,711		

\* The share purchase warrants are subject to an acceleration clause that allows the Company to accelerate the expiry date of the share purchase warrants in the event that the volume weighted average trading price of the common shares on the Canadian Securities Exchange exceeds \$1.00 for 10 consecutive trading days.

\*\* The share purchase warrants are subject to an acceleration clause that allows the Company to accelerate the expiry date of the share purchase warrants in the event that the volume weighted average trading price of the common shares on the Canadian Securities Exchange exceeds \$2.00 for 10 consecutive trading days.

\*\*\* The share purchase warrants are subject to an acceleration clause that allows the Company to accelerate the expiry date of the share purchase warrants in the event that the volume weighted average trading price of the common shares on the Canadian Securities Exchange exceeds \$1.20 for 10 consecutive trading days.

**Gemina Laboratories Ltd.**  
Management Discussion and Analysis  
For the quarter and six months ended July 31, 2022

---

Stock options

<b>Exercise Price</b>	<b>Number Outstanding</b>	<b>Number Exercisable</b>	<b>Expiry Date</b>
\$			
0.30	1,850,000	1,758,333	February 19, 2031
0.30	250,000	250,000	April 1, 2024
0.45	550,000	-	September 10, 2026
0.45	200,000	150,000	September 10, 2026
0.45	200,000	150,000	September 14, 2026
0.45	100,000	50,000	November 17, 2026
0.45	500,000	-	March 9, 2027
0.60	2,000,000	-	September 6, 2032
	<b>5,650,000</b>	<b>2,358,333</b>	

**13 Additional Information**

Additional information about the Company, including the Annual Financial Statements, is available on SEDAR at [www.sedar.com](http://www.sedar.com).