**Management's Discussion and Analysis** 

For the year ended December 31, 2021

Management's Discussion and Analysis December 31, 2021

# 1. INTRODUCTION

The following Management Discussion and Analysis ("MD&A") of the operating results and financial position of XPhyto Therapeutics Corp. ("XPhyto" or the "Company") is prepared as of April 29, 2022 and provides information concerning the Company's financial condition as at December 31, 2021. The MD&A should be read in conjunction with the Company's audited consolidated financial statements, including the notes thereto, for the year ended December 31, 2021.

The referenced consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). Except as otherwise disclosed, all dollar figures included therein and in the following MD&A are quoted in Canadian dollars.

The following terms have meanings as shown below:

- "Q1 2021" means the three months ended March 31, 2021
- "Q2 2021" means the three months ended June 30, 2021
- "Q3 2021" means the three months ended September 30, 2021
- "Q4 2021" means the three months ended December 31, 2021
- "FY 2020" means fiscal year ended December 31, 2020
- "FY 2021" means fiscal year ended December 31, 2021

# 2. DESCRIPTION OF BUSINESS

The Company, formally known as Cannabunker Development Corp., was incorporated under the Business Corporations Act (British Columbia) on December 12, 2017. The principal business of the Company is to focus on strategic assets and investments in the field of rapid pathogen screening systems and next generation drug delivery, as well as medical cannabis and psychedelic opportunities focused on emerging European markets. The Company trades on the Canadian Securities Exchange ("CSE") under the symbol "XPHY", on the OTCQB under the symbol "XPHYF" and on the Frankfurt exchange under the symbol "4XT".

# 3. CAUTIONARY NOTE REGARDING FORWARDING LOOKING STATEMENTS

This MD&A contains certain statements that may constitute "forward-looking statements". Forward-looking statements include, but are not limited to, statements regarding future anticipated business developments and the timing thereof, regulatory compliance, sufficiency of working capital, and business and financing plans. Although the Company believes that such statements are reasonable, it can give no assurance that such expectations will prove to be correct. Forward-looking statements are typically identified by words such as: believe, expect, anticipate, intend, estimate, postulate, and similar expressions, or which by their nature refer to future events. The Company cautions investors that any forward-looking statements by the Company are not guarantees of future performance, and that actual results may differ materially from those in forward-looking statements as a result of various factors, including, but not limited to, the Company's ability to continue its projected growth, to raise the necessary capital, or to be fully able to implement its business strategies.

# 4. OVERALL PERFORMANCE

To December 31, 2021, the Company has an accumulated deficit of \$43,377,380. During the year ended December 31, 2021, the Company completed non-brokered private placements for aggregate gross proceeds of \$7,350,000. Proceeds from the exercise of warrants and options during the year further

Management's Discussion and Analysis December 31, 2021

provided cash of \$7,534,096 and \$62,500, respectively. The proceeds allowed the Company to further its research and development efforts, procure additional inventory for sale, and complete the acquisition of 3a Diagnostics GmbH ("3a") (see section 6.2 (I)).

In FY 2021, the Company had successfully launched to market its 25-minute COVID-19 PCR test, the "COVID-ID Lab." During FY 2021, sales revenue from the sale of products amounted to \$123,181. In January 2022, the Company signed a distribution agreement for the distribution of COVID-ID Lab in the Czech Republic as an initial priority market, followed by Hungary, Slovakia, Ukraine and Russia. In February 2022, the Company signed COVID-ID Lab sales contracts with coronavirus test centres and a group of pharmacies in Germany. With the new appointment of the Company's Head of Sales, Europe, the Company will augment its focus on building out distribution, sales, and marketing of the Company's products, with high priority on the commercialization of COVID-ID Lab.

Management is continuing to leverage its scientific expertise and operations in North America and Europe with an operational focus in Germany. XPhyto's strategy is to develop a portfolio of generic and hybridgeneric drug products. The Company is reviewing its development pipeline for selection of its next near-term drug formulation candidate.

#### 5. SELECTED ANNUAL INFORMATION

The following table summarizes selected information from the Company's audited financial statements for the past three fiscal years.

For the Year Ended December 31	2021 \$	2020 \$	2019 \$
Total revenue	286,498	345,654	208,119
Comprehensive loss for the period	(20,639,106)	(16,826,345)	(7,680,523)
Loss per share (basic and diluted)	(0.29)	(0.30)	(0.17)
Cash dividends per share	Nil	Nil	Nil
Total Assets	9,726,618	8,284,177	8,655,887
Long-term financial liabilities	2,608,339	2,812,436	951,280
Accumulated deficit	(43,377,380)	(24,926,438)	(8,533,797)

All financial information is prepared in accordance with IFRS. All dollar amounts are expressed in Canadian dollars.

# 6. SUMMARY OF KEY EVENTS

# 6.1 Year Ended December 31, 2020

- a) In January 2020, the Company announced that it had signed a three-year definitive supply, import and distribution agreement with PharmaCielo Ltd. ("PharmaCielo"). Pursuant to the Agreement and subject to all necessary regulatory approvals, XPhyto plans to commence the commercial import of cannabis oils and isolates with a three year minimum sales target of approximately 30,000 kg for a full range of extracted products including 99% pure CBD and THC isolates, broad spectrum CBD oils, and full spectrum THC oils.
- b) In April 2020, the Company signed a development, technology purchase and licence agreement with 3a-Diagnostics GmbH ("3a") for the development and

Management's Discussion and Analysis December 31, 2021

commercialization of an oral screening test for the detection of infectious diseases. The Company has committed to fund EUR 250,000 in stages through to October 2020 and up to an additional EUR 1,073,000 based on certain development milestones. The Company will also issue 50,000 common shares on signing (issued), 200,000 common shares based on certain development milestones (200,000 issued) and 250,000 common shares upon achieving EUR 25,000,000 in gross sales within 24 months. 3a will retain a 5% royalty on net sales of all products sold by the Company.

- c) In May 2020, the Company signed a standstill agreement and letter of intent for cooperation in the field of development, production, and distribution of new cannabis-infused beverages and products with the renowned German brewery Oettinger Brauerei GmbH ("Oettinger"). XPhyto and Oettinger have agreed to pursue the signing of an exclusive definitive agreement in due course, specifically for creating new cannabis-related beverages and products.
- d) In November 2020, the Company announced signing a research agreement with a leading German university for the exclusive development of a proprietary biotechnology process for the industrial manufacture of psilocybin as a certified active pharmaceutical ingredient.
- e) In November 2020, the Company announced that it had signed an addendum to the Exclusive Dealing Agreement with Dr. Raimar Loebenberg ("Loebenberg") to include a wide range of psychedelic compounds under Loebenberg's recently acquired psychedelic and research licences acquired from Health Canada.

# 6.2 Year Ended December 31, 2021

- a) In January 2021, the Company announced that its wholly owned subsidiary, Vektor Pharma TF GmbH ("Vektor"), is planning to build a new commercial drug manufacturing facility in Germany in 2021. Vektor has secured a property in the district of Biberach, near its current laboratory. The estimated maximum capacity of laboratory and manufacturing space that could be constructed on the property is 3,000 m² (32,000 ft²).
- b) In February 2021, the Company announced signing an agreement with Applied Pharmaceutical Innovation ("API") for the synthesis of pharmaceutical grade psychedelic compounds and the parallel development of the standard operating procedures necessary to obtain regulatory approval for the respective commercial production process. The industrial-scale production of standardized active pharmaceutical ingredients is an important part of XPhyto's psychedelic pharmaceutical program as the Company anticipates a shortage of large-scale supply of certain approved and standardized pharmaceutical grade psychedelics. Further to this agreement, the Company added mescaline production to its psychedelic medicine programs.
- In February 2021, the Company announced Vektor had been made subject to a declaratory action made by a former client in relation to an alleged breach of the terms

Management's Discussion and Analysis December 31, 2021

of a development agreement. Vektor has filed a notice of defence in the respective German court. On April 22, 2021, the Company filed a statement of defence in reply to the complaint. The matter was set to be heard in July 2021 in the Regional Court of Dusseldorf but was postponed and the Company is currently awaiting the rescheduled date.

- d) In February 2021, on the expectation of its commercial diagnostics development partner 3a receiving ISO 13485 medical device manufacturer approval and European regulatory approval as a commercial in vitro diagnostic device (CE-IVD) for its point-of-care SARS-CoV-2 (COVID-19) RT-PCR test system ("Covid-ID Lab"), the Company announced that it had expedited the formation of an experienced commercial team to launch Covid-ID Lab. Covid-ID Lab was developed by 3a. The market launch team consists of world-class clinical and pharmaceutical executives and service providers who bring the experience and expertise necessary to drive the commercialization of Covid-ID Lab effectively and rapidly.
- e) In February 2021, the Company announced that the first manufacturing order of Covid-ID Lab was for 9,600 individual tests which are packaged in 200 kits of 48 tests each. Delivery of the first order will be primarily used to supply prospective distribution partners and licensees and their respective government regulators with tests samples for review and evaluation.
- f) In March 2021, the Company and its exclusive German diagnostics development partner, 3a, announced the European approval of its Covid-ID Lab. Covid-ID Lab is now registered within the European Union as a commercial in vitro diagnostic (CE-IVD) test.
- g) In April 2021, the Company announced that it had entered into an agreement with an established German pharmaceutical wholesaler and service provider for the distribution, storage and logistics of XPhyto's diagnostic products in Germany. The agreement secures XPhyto a full-service distribution partner for its COVID-ID Lab. COVID-ID Lab is registered within the European Union as a commercial in vitro diagnostic (CE-IVD) test. Pursuant to the agreement, the distributor will distribute, store and deliver COVID-ID Lab test kits according to the product specifications and all applicable regulations to XPhyto's customers. In addition, the distributor will provide the documentation and fulfillment of storage obligations, the fulfillment of reporting and notification obligations, and the processing of any returned products. The obligations and services to be rendered under the agreement satisfy all of the logistical and regulatory requirements for the commercial sale of COVID-ID Lab in Germany.
- h) In April 2021, the Company announced that it had delivered 2,000 of its rapid 25-minute PCR tests, COVID-ID Lab to an established medical distributor in Israel for clinical evaluation for the purpose of commercial regulatory approval and potential product distribution. Based on the European CE-IVD approval of COVID-ID Lab, announced by the Company on March 18, 2021, COVID-ID Lab will be evaluated by the Medical Device Division of the Israeli Ministry of Health (AMAR) for the purpose of securing Israeli regulatory approval. Israel recognizes several international medical

Management's Discussion and Analysis December 31, 2021

device certifications including the European CE-IVD mark. The clinical evaluation process will form the basis for commercial approval of Covid-ID Lab in Israel.

- i) In May 2021, the Company announced that it had commenced a pilot project with its rapid COVID-19 PCR test, Covid-ID Lab, in a point-of-care (POC) setting in Germany. During the pilot project, the validated workflows for the test including the mobile collection and processing of patient samples will be further optimized. XPhyto's clinical partner for the project is Spitzweg Apotheke, a well-known pharmacy in Langen near Frankfurt, Germany, currently running a COVID-19 test center at a clinic, where it also provides special pharmacy services for cancer patients.
- j) In May 2021, the Company announced that its distribution, storage and logistics partner, Max Pharma GmbH, will launch the sale of COVID-ID Lab commencing May 25, 2021. COVID-ID Lab will be available for purchase and delivery in Germany from Max Pharma at volume dependent pricing within the range of commonly available COVID-19 PCR test products currently on the market. Initial German manufacturing capacity has been secured with additional manufacturing capacity available based on demand.
- k) In June 2021, the Company announced that it had signed a master supply agreement with Beovita GmbH & Co. KG and Tackleberries GmbH, two German diagnostics, testing, and medical logistics companies that run ten COVID-19 test centers in Berlin, Germany. Approximately 1,000 Covid-ID Lab tests were delivered to the test centers to kick off a short trial period to integrate and evaluate XPhyto's new PCR test system. Covid-ID Lab sample processing will occur directly at the sample collection site.
- In July 2021, the Company announced that it had signed a definitive agreement for the acquisition of 3a, XPhyto's exclusive diagnostics development partner. Pursuant to the definitive agreement, XPhyto will acquire all of the outstanding shares of 3a for EUR 400,000, to be paid immediately, and EUR 3.5 million, to be paid on closing, planned for on or around December 1, 2021. The planned acquisition of 3a is expected to result in significant synergies in research and development and manufacturing; significantly improved margins for commercial products, such as the 25-minute COVID-ID Lab test; as well as expedite commercialization of products in 3a's near-market development pipeline. 3a's intellectual property, including patents, know-how, expertise and contracts with third parties will be transferred to XPhyto at the time of closing the acquisition. XPhyto plans to maintain, support and further develop 3a's operations in Southern-Germany.
- m) In July 2021, the Company announced that its acquisition target, 3a, has identified the first saliva activated "in-mouth" biosensor candidates for the detection of a COVID-19 infection. The enzyme-activated biosensors are developed for real-time, low-cost and easy-to-use oral screening applications for the rapid detection of infectious diseases including COVID-19 at home or at the point-of-care.
- n) In August 2021, the Company, with 3a, has successfully registered for its first biosensor test in oral inflammation with the German authorities (cosmetic products notification). The easy at-home self-check can be performed without the need for

Management's Discussion and Analysis December 31, 2021

specific medical knowledge or training, analytical equipment or even a power supply. When placed on the tongue, the thin film dissolves and, after 5 minutes, the biosensor releases a bitter taste in case of oral inflammation. The biosensor functions as a quick test for heightened levels of certain bacteria and viruses to check whether a doctor's visit and further tests are necessary.

- o) In September 2021, the Company announced the successful market launch of its 25-minute COVID-19 PCR Test, COVID-ID Lab. The pilot project at the test centers in Berlin has successfully optimized the operational procedures and protocols for the rapid, efficient and reliable use of COVID-ID Lab. This technical and operational knowledge is a critical component of the product launch process and to securing sales with existing and prospective customers.
- p) In November 2021, the Company announced it has closed its \$1.00 common share non-brokered private placement (the "Equity Offering"), as well as its previously announced non-brokered convertible debenture unit offering (the "Debenture Offering"). The Equity Offering resulted in the distribution of 4,500,000 common shares of the Company (a "Share") for gross aggregate proceeds of \$4,500,000. The Debenture Offering resulted in gross aggregate proceeds of \$2,500,000 through the issuance of \$2,500,000 in principal, convertible into Shares at a conversion price of \$1.25 per Share, and 2,000,000 Share purchase warrants, exercisable into Shares at an exercise price of \$1.50 for a period of 2 years.
- q) In December 2021, the Company completed its acquisition of 3a.

# 6.3 Subsequent to December 31, 2021

- a) In January 2022, the Company signed a distribution agreement with TechUnit s.r.o. (Limited) for the distribution of its COVID-ID Lab in the Czech Republic as an initial priority market followed by Hungary, Slovakia, Ukraine and Russia.
- b) In January 2022, the Company announced the execution of COVID-ID Lab sales contracts with both digitallifecare Corona Testzentren ("digitallife"), powered by digitallifecare GmbH, Germany and a group of pharmacies in Bamberg, Germany.

# 7. RESULTS OF OPERATIONS

# 7.1 Year Ended December 31, 2021

During the year ended December 31, 2021, the Company recorded revenues of \$286,498 (2020 – \$345,654) and a comprehensive loss of \$20,639,106 (2020 – \$16,826,345). During FY 2021, the Company had successfully launched its 25-minute COVID-19 PCR Test, COVID-ID Lab, to the European market. Revenue from product sales as a new revenue stream amounted to \$123,181 in FY 2021, while analytical testing and other revenues generated from consulting services offered totaled \$163,317. In the comparative period, revenue of \$345,654 was derived from consulting services offered through its wholly owned subsidiary, Vektor Pharma TF GmbH.

Management's Discussion and Analysis December 31, 2021

Operating expenses for the year ended December 31, 2021 increased to \$16,628,389 from \$15,317,833 for the comparable period. Significant variances in operating expenses for the year ended December 31, 2021, as compared to the prior year include the following:

- Consulting fees expense in the year ended December 31, 2021 was \$1,334,976, as compared to \$1,844,724 in the prior year. Higher consulting expense in FY 2020 was mainly due to non-cash expense related to a consulting agreement. This consultant agreement was terminated in February 2021. In the FY 2020, the consultant was issued 240,000 common shares with a fair value of \$555,600.
- Salaries and benefits expense in the year ended December 31, 2021 was \$859,395, as compared
  to \$740,169 in the prior year. The increase reflects additional salaries and benefits expense
  associated with the newly acquired 3a, as well as increased compensation for the Company's CEO
  and former CFO during the year.
- Share-based compensation expense recognized in the year ended December 31, 2021 was \$3,275,071 as compared to \$2,592,914 in the prior year. In FY 2021, a total of 4,445,000 stock options were issued to consultants, employees, officers, and directors of the Company. In comparison, 2,875,000 stock options were issued in FY 2020.
- Marketing and advertising expense was \$5,374,776 for FY2021, as compared to \$4,645,027 for the comparative period. Through 2020 and into 2021, the Company had been expanding its marketing and investor relations efforts in anticipation of its commercial sales launch and to increase liquidity, and, in the effort, engaged several marketing and media management companies in Canada, the United States and Europe. Certain additional US marketing efforts were launched in 2021 that contributed to the increase year over year.
- Selling and distribution expense was \$133,811 in FY 2021 and \$nil in FY 2020. These expenses
  were incurred in association with the Company's sale of COVID-ID Lab and related products, which
  began in FY 2021.

Notable variances in other income and expenses for FY2021 as compared to FY2020 include the following:

- In Q4 2021, the Company recorded a loss in write-down of equipment of \$217,491. This equipment had been rendered inoperable due to the failed commissioning of the unit. The Company is proceeding to obtain compensation from the supplier.
- In Q4 2021, the Company recorded a loss in write down of right-of-use asset of \$3,459,481 relating to a lease held by Bunker in Germany. As the Company no longer has any plans for using this leased facility and has terminated the lease in April 2022, the value of this right-of-use asset has been written down to \$nil at year end 2021.
- Finance costs in the year ended December 31, 2021 were \$731,865, as compared to \$297,077 in the prior year. The increase was largely due to interest on convertible debentures issued in December 2020 and November 2021.
- In the year ended December 31, 2020, the Company recorded a goodwill impairment of \$1,958,219.

# 7.2 Three Months Ended December 31, 2021

During the three months ended December 31, 2021, the Company recorded revenues of \$158,184 (2020 - \$77,330) and comprehensive loss of \$8,485,588 (2020 – \$2,816,440). During the second half of FY 2021, the Company had successfully launched its 25-minute COVID-19 PCR Test, COVID-ID Lab, to the

Management's Discussion and Analysis December 31, 2021

European market. Revenue from product sales as a new revenue stream in Q4 2021 amounted to \$32,870, while analytical testing and other revenues generated from consulting and services offered through Vektor totaled \$125,314. In comparison, total revenue in Q4 2020 was \$77,330 and entirely related to consulting and services offered through Vektor.

Operating expenses for the Q4 2021 increased to \$4,942,285 from \$2,937,934 for the comparable period. Significant variances in operating expenses for the three months ended December 31, 2021 as compared to the same period in the prior year include the following:

- Share-based compensation expense recognized in Q4 2021 was \$2,040,441 as compared to \$513,995 in the same period prior year. In Q4 2021, the Company issued a total of 3,325,000 stock options with a weighted average exercise price of \$1.30 to certain consultants, employees, officers, and directors of the Company. In comparison, during the same period in the prior year, a total of 500,000 stock options were issued at a weighted average exercise price of \$1.80.
- Selling and distribution expense was \$126,033 in Q4 2021, compared to \$nil in the same period prior year. These expenses were incurred in association with the Company's sale of COVID-ID Lab and related products, which began in the second half of FY 2021.

# 8. SUMMARY OF QUARTERLY RESULTS

The following selected financial information is a summary of the eight most recently completed quarters up to December 31, 2021:

	Dec 31, 2021 \$	Sept 30, 2021 \$	June 30, 2021 \$	Mar 31, 2021 \$
Total revenue	158,184	116,931	7,685	3,698
Comprehensive loss	(8,485,588)	(2,596,505)	(4,161,385)	(5,395,628)
Basic and diluted loss per share	(0.11)	(0.04)	(0.06)	(0.08)

	Dec 31,	Sept 30,	June 30,	Mar 31,
	2020	2020	2020	2020
	\$	\$	\$	\$
Total revenue	77,330	84,622	(76,813)	260,515
Comprehensive loss	(2,816,440)	(6,838,896)	(3,640,227)	(3,530,782)
Basic and diluted loss per share	(0.05)	(0.11)	(0.06)	(0.07)

In terms of comparative and trend discussion from quarter to quarter, the Company's operations are still in their early stages, and the Company is continuing to grow in both Canada and Germany. As a result, large variances from quarter to quarter may occur. Below are a few highlights discussing the comparable quarterly results:

#### Q4 2021 to Q3 2021

Comprehensive loss for Q4 2021 was 8,485,588, as compared to \$2,596,505 in Q3 2021. Higher comprehensive loss in Q4 2021 was mainly due to higher share-based compensation, which amounted to \$2,040,441 as compared to \$5,832 in Q3 2021, as well as loss on write down of equipment and right-of-use asset. In Q4 2021, the Company issued a total of 3,325,000 stock options with a weighted average exercise price of \$1.30 to certain consultants, officers, employees, and directors of the Company. In

Management's Discussion and Analysis December 31, 2021

comparison, in Q3 2021, no new options were issued, and expense recognized related to the vesting of stock options issued in prior periods. In Q4 2021, the Company recorded a loss in write-down of equipment of \$217,491. This equipment had been rendered inoperable due to the failed commissioning of the unit. The Company also recorded a loss in write down of right-of-use asset of \$3,459,481 relating to a lease held by Bunker in Germany. As the Company no longer has any plans for using this leased facility and has terminated the lease in April 2022, the value of this right-of-use asset has been written down to \$nil at year end 2021.

#### Q3 2021 to Q2 2021

Comprehensive loss for Q3 2021 was \$2,596,505, as compared to \$4,161,385 in Q2 2021. Marketing and advertising expense has decreased by \$1,169,668 from Q2 2021 to Q3 2021. This was mainly due to the Company's decision to not engage in any United States marketing for Q3 2021.

# Q2 2021 to Q1 2021

Comprehensive loss for Q2 2021 was \$4,161,385, as compared to \$5,395,628 in Q1 2021. Research and lab fees expense was \$578,164 in Q2 2021 as compared to \$1,343,036 in Q1 2021. Higher research and lab fees expense in Q1 2021 was mainly a result of 1) the upfront infrastructure payment made in relation to the February 2021 agreement with API for the synthesis of pharmaceutical grade psychedelic compounds, and 2) the 2021 Q1 payments made with respect to the 3a development, technology purchase and licence agreement. There were no payments made related to this agreement in Q2 2021.

# Q1 2021 to Q4 2020

Comprehensive loss for the quarter ended March 31, 2021 was \$5,395,628 as compared to \$2,816,440 for the quarter ended December 31, 2020. Marketing and advertising expense was \$1,935,000 for Q1 2021, as compared to \$338,469 for Q4 2020. In Q1 2021, the Company expanded its marketing and investor-relation efforts in anticipation of its commercial sales launch and to increase liquidity, and, in the effort, engaged several marketing and media management companies in Canada, the United States and Europe. Research and lab fees increased to \$1,343,036 in Q1 2021 from \$891,624 in Q4 2020. This is mainly due to the increased activity at Vektor. Share-based compensation was \$896,647 for Q1 2021, as compared to \$513,995 for Q4 2020. In Q1 2021, the Company issued 770,000 options to its consultants and employees at an exercise price between \$2.55 and \$2.85 per share as share-based compensation. In Q4 2020, 500,000 options were issued at an exercise price between \$1.80 and \$1.81 per share as share-based compensation.

# 9. LIQUIDITY AND CAPITAL RESOURCES

The Company's primary sources of capital include the issuance of equity, exercise of common share warrants and stock options by their holders, and debt financing. The Company had a working capital deficit of \$2,745,775, which included cash of \$1,351,981, at December 31, 2021, compared to a working capital of \$1,563,741, which included cash of \$2,584,943, at December 31, 2020.

Cash decreased by \$1,232,962 to \$1,351,981 during the year ended December 31, 2021. The Company's operations consumed \$12,155,051 of cash during the year ended December 31, 2021, as compared to \$10,204,937 in the prior year. From FY 2020 to FY 2021, the Company had continued to increase its scale of operating activities and had also begun procuring inventories for sale, which resulted in higher usage of cash. Investing activities consumed \$5,307,959 of cash during FY 2021, as compared to \$156,472 during FY 2020. Cash used in investing activities in FY 2021 mainly related to the acquisition of property and various equipment in Germany, as well as payments related to the acquisition of 3a (see section 6.2 (I)).

Management's Discussion and Analysis December 31, 2021

Financing activities provided a cash inflow of \$16,230,472 in FY 2021, as compared to \$12,650,766 in FY 2020. During FY 2021, the Company issued 6,000,000 common shares for gross proceeds of \$7,350,000 in connection with non-brokered private placements. The Company also issued 8,940,275 common shares in connection with the exercise of 8,940,275 share purchase warrants, for proceeds of \$7,534,096. In November 2021, the Company also issued a convertible debenture for net proceeds of \$2,298,448.

The Company has forecasted its cash requirements for the next fiscal year and believes it will have sufficient cash resources and liquidity to sustain its current planned activities. This assessment is based on the Company's budget, its available cash, and future planned financing activities. Future planned activities will require the Company to raise additional capital. For the foreseeable future, the Company intends to finance its operations through the issuance of shares and debentures, and cash from the exercise of warrants and options by their holders.

# 10. OFF-BALANCE SHEET ARRANGEMENTS

The Company has no off-balance sheet arrangements.

#### 11. PROPOSED TRANSACTIONS

The Company does not have any proposed transactions as at December 31, 2021 other than as disclosed elsewhere in this document.

# 12. RELATED PARTY TRANSACTIONS

Key management personnel are the persons responsible for 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 its directors, Chief Executive Officer and Chief Financial Officer of the Company, Managing Director of Vektor, Managing Director of 3a, and Managing Director and Chief Financial Officer of Bunker to be key management personnel.

The following is a summary of the Company's key management compensation.

	December 31, 2021 \$	December 31, 2020 \$
Compensation and short-term benefits – Hugh Rogers, CEO &		
Director	215,709	180,000
Compensation and short-term benefits – Christopher Ross, former		
CFO	150,268	150,000
Compensation – Wolfgang Probst, Director	206,526	183,508
Compensation – Robert Barth, Former Managing Director, Bunker	_	15,292
Compensation – Per S. Thoresen, Director	_	13,323
Compensation – Heinrich Jehle, Managing Director, 3a	14,463	_
Consulting fees - Peter Damouni, Director	90,000	_
Research and lab fees – Thomas Beckert, Managing Director,		
Vektor	242,444	247,735
Research and lab fees - Dr. Raimar Löbenberg, Director	60,000	60,000
Share-based payments (1) - Hugh Rogers, CEO & Director	209,568	29,735
Share-based payments (1) - Christopher Ross, former CFO	-	16,011
Share-based payments (1) – Joseph Meagher, CFO	139,712	_

Management's Discussion and Analysis December 31, 2021

Share-based payments (1) – Per S. Thoresen, Director	_	289,810
Share-based payments (1) – Peter Damouni, Director	698,559	_
Share-based payments (1) – Thomas Beckert, Managing Director,		
Vektor	174,640	_
Director fees – Hugh Rogers, CEO & Director	9,000	_
Director fees – Dr. Raimar Löbenberg, Director	9,000	_
Director fees – Wolfgang Probst, Director	9,000	_
Director fees - Per S. Thoresen, Director	9,000	_
Director fees – Peter Damouni, Director	6,000	_

(1) Share-based payments are the fair value of options granted to key management personnel and directors of the Company under the Company's Stock Option Plan.

As at December 31, 2021, \$50,038 (December 31, 2020 - \$7,358) remained unpaid and has been included in accounts payable and accrued liabilities.

During the year ended December 31, 2021, the Company incurred \$28,731 (2020 – \$5,600) in professional fees to a company controlled by the former CFO of the Company. As at December 31, 2021, the Company owed \$nil (December 31, 2020 – \$2,205) in accounts payable and accrued liabilities to this company.

During the year ended December 31, 2021, the Company incurred \$8,400 (2020 - \$nil) in consulting fees to a company controlled by the CFO of the Company. As at December 31, 2021, the Company owed \$6,000 (December 31, 2020 - \$nil) in accounts payable and accrued liabilities to this company.

All related transactions are in the normal course of business and are measured at the exchange amount.

# 13. OUTLOOK

Since incorporation, the Company has evolved into a diversified life science technology accelerator through acquisition, partnership, and in-house research and development. Through its wholly owned subsidiaries and exclusive research, development, and commercialization agreements, XPhyto is developing a pathogen and oral health diagnostic and screening test business, thin film drug formulation business, and a psychedelic pharmaceutical production and formulation business.

# Pathogen and Oral Health Diagnostic and Screening Tests

XPhyto is developing and commercializing a pipeline of pathogen and oral health diagnostic and biosensor screening tests for European markets with its first product, a rapid point-of-care COVID-19 PCR system launched in March 2021, and its second product, a low-cost oral dissolvable biosensor for oral inflammation was registered for sale in Europe in Q3 2021. The Company's diagnostic business has proceeded by way of an exclusive partnership with 3a as set out above. On July 20, 2021, XPhyto announced a proposed acquisition of 3a, which closed December 1, 2021 and was announced on December 6, 2021.

In addition to its COVID-19 rapid point-of-care PCR system, 3a developed a suite of biosensor rapid oral screening tests for bacterial and viral infectious diseases, including influenza A, group A Streptococcus, stomatitis, periimplantitis, and periodontitis. Additional pandemic-focused biosensors are in planning and development, specifically for COVID-19 (coronavirus), H1N1 (swine flu), and H5N1 (avian flu). On June 10, 2020, XPhyto announced that 3a and their contract research collaborators received a €254,200 grant from the German Federal Ministry of Education and Research. Proceeds of the grant are committed to the development and commercialization of enzyme activated biosensors for use in real-time, low-cost and easy-to-use oral screening tests for the detection of influenza A virus and specific variants that are high-risk

Management's Discussion and Analysis December 31, 2021

pandemic threats such as H1N1 and H5N1. On July 6, 2020, the Company announced that 3a's enhanced probe system for and associated technology for COVID-19 had been incorporated into the development, technology purchase and licence agreement with 3a.

3a successfully developed a rapid COVID-19 PCR diagnostic test kit to detect COVID-19 viral RNA from patient saliva and nasal and throat swabs. On March 18, 2021, the Company announced European CE-IVD approval for the commercial sale of the COVID-19 PCR kit. The Company is working to secure production and distribution agreements with a focus on European and Middle Eastern markets.

On April 21, 2021, the Company announced that it had entered into an agreement with an established German pharmaceutical wholesaler and service provider for the distribution, storage and logistics of XPhyto's diagnostic products in Germany. On April 28, 2021, XPhyto announced that it had delivered 2,000 rapid 25-minute PCR tests to an established medical distributor in Israel for clinical evaluation of Covid-ID Lab for the purpose of commercial regulatory approval and potential product distribution in Israel and the Middle East. On May 7, 2021, the Company announced that it commenced a pilot project for its rapid COVID-19 PCR test in a point-of-care setting at a pharmacy near Frankfurt, Germany. During the pilot project, the validated workflows for the test including the mobile collection and processing of patient samples were further optimized. On June 30, 2021, the Company announced a pilot study with 10 COVID-19 test centers in Berlin. The pilot study generated valuable data to finalize the laboratory workflows and training protocols, which are necessary for commercial implementation.

On July 28, 2021, XPhyto announced the successful identification of a saliva-activated in-mouth biosensor candidate for the detection of a COVID-19 infection. Further development work is underway.

# Thin Film Drug Formulation

XPhyto is developing a thin film drug formulation business through its wholly owned German subsidiary, Vektor, with a focus on hybrid and hybrid-generic development opportunities based on approved active pharmaceutical ingredients. This strategy is expected to provide lower development costs, expedited development timelines, and lower regulatory risk compared to the development of drug formulations using novel compounds.

In Q3 2019, XPhyto acquired 100% of Vektor, a German-based narcotics company focused on the research, development and production of therapeutic films for pharmaceutical applications. The company had established itself as an expert in the design, testing and manufacturing of thin film drug delivery systems, including transdermal patches and sub-lingual (oral) strips. Vektor also holds a number of valid narcotics licences pursuant to EU GMP certification and other governing regulations: Import Permit for drug dosage forms; Import Permit for cannabis; Manufacturing Permit for clinical samples; Manufacturing Permit for final drug product release; Analytical Permit for chemical and physical testing; Permit to handle narcotic drugs; and a Permit to handle animal tissue. Vektor's various narcotics licences include authorizations related to conventional and cannabis-related prescription medications, including but not limited to: Buprenorphine, cannabis, Dronabinol, Fentanyl, Hydromorphone, Oxycodone, and THC. Vektor's cannabis licences and EU GMP facility may be important assets for XPhyto's import and distribution businesses.

Vektor's managing director is a licensed German pharmacist with a doctorate degree in pharmacy and the following regulated qualifications in Germany: Qualified Person (QP), Production Manager (AMG), Control Manager (AMG), Narcotics Officer (BtMG and EU-QPPV), EU Qualified Person (QP) for Phrmacovigilance, and RP (GDP and Information Officer).

The current drug delivery programs are focused on precision dosing of conventional narcotics and cannabis-derived compounds using Vektor's novel thin film drug delivery platforms. The three leading drug

Management's Discussion and Analysis December 31, 2021

delivery programs are as follows: 1) a transdermal patch ("TDS") for the delivery of Rotigotine; 2) an oral dissolvable film ("ODF") for the delivery of CBD; and an ODF for the delivery of THC. Additional drug delivery programs are underway at various stages of planning and development.

Rotigotine is a non-ergoline dopamine agonist approved for the treatment of Parkinson's disease (PD) and restless legs syndrome (RLS) in Europe and the United States. Rotigotine, the active pharmaceutical ingredient, is a generic "off-patent" drug that is typically formulated as a once-daily transdermal patch which provides a slow and constant supply of the drug over the course of 24 hours. Vektor has completed formulation and process implementation for the manufacture of its Rotigotine patches for use in clinical studies. Clinical sample manufacturing and analytical work was completed in Q4 2020 with human bioavailability studies completed in Q1 2021. Positive results and the advancement of the Rotigotine program to a pivotal human study were announced in Q2 2021.

CBD, a non-psychoactive cannabis-derived compound, is prescribed for neurological conditions, including certain forms of Epilepsy and pain management. Vektor has completed the initial stage of product development and established a number of critical parameters necessary for an efficient and well-defined dissolvable oral CBD dosage form. The Company finalized the clinical formulation and completed clinical product manufacturing in Q4 2021. The European-based pilot study was carried out in Q1 2022 with results expected in Q2 2022.

THC, the primary psychoactive cannabinoid compound has been approved for the treatment of nausea associated with cancer chemotherapy and for the treatment of anorexia associated with weight loss in AIDS patients. Vektor has completed the initial stage of product development and established a number of critical parameters necessary for an efficient and well-defined dissolvable oral THC dosage form. The Company is finalizing the formulation and preparing for European-based clinical studies to follow pending successful results from the CBD ODF human pilot study.

Vektor is also developing a one-to-one oral dissolvable CBD:THC dosage form for the treatment of Multiple Sclerosis associated spasticity. The Company is finalizing the formulation and preparing for European-based clinical studies, also pending successful results of the CBD ODF human pilot study.

Vektor is actively involved in the development of pathogen screening tests which incorporate 3a's molecular biosensors into Vektor's oral dissolvable (ODF) drug delivery system. 3a has developed peptide-based biosensor screening tests for bacterial and viral infectious diseases, including influenza A, scarlet fever, stomatitis, periimplantitis, and periodontitis. Additional pandemic-focused biosensors are in planning and development, specifically for COVID-19 (coronavirus), H1N1 (swine flu), and H5N1 (avian flu). Positive detection of the respective pathogen results in enzymatic release of an extreme (but safe) bitter compound. 3a has confirmed successful enzyme activation of its peptide biosensor when delivered using Vektor's platform; in addition, ODF embedded biosensor activation has been demonstrated for biologically relevant levels of pathogen specific enzymes. Screening test evaluation for certain biosensor products for the purpose of EU regulatory approval is planned for Q2 2022.

In Q1 2021, the Company announced that Vektor had been made subject to a declaratory action made by a former client in relation to alleged breach of the terms of a development agreement. Vektor has filed a notice of defence in the respective German court. On April 22, 2021, the Company filed a statement of defence in reply to the complaint. The matter was set to be heard in July 2021 in the Regional Court of Dusseldorf but has been postponed due to a request from the plaintiff. A new date has not been set.

In Q2 2021, the Company announced that it had signed a purchase and sale agreement for the acquisition of a property in Biberach, Germany. The Company intends to construct a new commercial drug manufacturing facility on the site. The Company is reviewing scalable construction options to synchronize

Management's Discussion and Analysis December 31, 2021

its manufacturing capacity with demand from in-house and contract manufacturing opportunities. A construction plan and budget has not been finalized.

# Psychedelic Pharmaceutical Production and Formulation

XPhyto is focused on development of a psychedelic production and formulation business with clinical validation as the final intended step in the commercialization process. The Company's psychedelic (and former cannabis R&D) programs in Canada are carried out through XPhyto Laboratories Corp., a wholly owned Alberta subsidiary, and in collaboration with the University of Alberta ("UoA"). The Company is focused on the industrial scale synthesis of pharmaceutical-grade mescaline for therapeutic use. Psychedelic programs in Germany are carried out through Vektor, a wholly owned German subsidiary.

On June 8, 2021, the Company announced that its mescaline synthesis program is on schedule having completed lab set up, preliminary synthesis, modified synthesis, and initial batch production. On February 22, 2022, XPhyto announced the development of a repeatable two-step reaction process with a mescaline yield greater than 60 per cent and purity exceeding 99 per cent, which is ideal for clinical use. Analytical methods were developed and validated and, to date, approximately 60 grams of GMP-grade mescaline has been manufactured for clinical trial evaluation. The Company is currently focused on drug delivery and Phase I clinical trial planning.

In addition to GMP mescaline synthesis, drug delivery, and clinical evaluation, the Canadian operations are also focused on the design and synthesis of novel second-generation psychedelic analogues. The company has successfully developed and manufactured two promising novel compounds with properties designed to increase bioavailability. Intellectual-property-related information will be disclosed in due course.

In Q3 2020, Vektor signed a research agreement with a leading German university for the exclusive development of proprietary industrial-scale production methodology for GMP psilocybin through an advanced biosynthesis process focused on the insertion of genes from the psilocybin mushroom into certain bio-organisms. On February 22, 2022, the Company announced that gene insertion is complete and the micro-organisms are now producing psilocybin. Commercial viability must be assessed.

On August 20, 2018, the Company signed an Exclusive Dealing Agreement with Loebenberg with respect to commercial operations under the licence issued pursuant to the Canadian Controlled Drugs and Substance Act held by Loebenberg and Loebenberg's cannabis related research and associated intellectual property. The agreement grants the Company an exclusive right to benefit from the exercise of Loebenberg's rights under the licence.

In consideration for the rights granted by Loebenberg to the Company, the Company issued 5,000,000 common shares (the "Consideration Shares"), to a company controlled by Loebenberg with a fair value of \$625,000. The Consideration Shares are subject to voluntary pooling ("Escrow") for a period commencing on the effective date of the agreement and terminating on the date that is thirty-six months after the earlier of: (i) the date the Company's shares are listed for trading on the CSE, and (ii) the date that is six months after the effective date of the agreement. The exclusivity period commences on the closing date of the agreement and expires on the earlier of (i) termination of the agreement, and (ii) the date that the last Consideration Shares are released from Escrow. If the licence is terminated during the exclusivity period, any remaining Escrowed Consideration Shares will be returned to the Company.

Loebenberg is entitled to revenue-based bonus payments from the sale of certain products developed by Loebenberg alone or jointly with the Company. The eligibility for earning the revenue-based bonus payments expires at the end of the exclusivity period. If the Company generates at least \$10,000,000 in revenues annually from the products, Loebenberg is entitled to receive a Level One Bonus of \$200,000. If

Management's Discussion and Analysis December 31, 2021

the Company generates at least \$5,000,000 in revenues annually from the products, Loebenberg is entitled to receive a Level Two Bonus of \$200,000. The Level Two Bonus is payable, at the election of the Company, either in cash or common shares at the current market price. The Company can terminate the Level One and/or Two Bonus entitlements by paying Loebenberg \$1,000,000 per each bonus entitlement.

The initial phase of XPhyto's business development is founded on two strategic cannabis-related collaborations with the Faculty of Pharmacy and Pharmaceutical Sciences, UoA (the "Faculty"): 1) an exclusive five year agreement to co-develop and operate a commercial grade analytical lab for the testing of cannabis and other plant-based medicines; and 2) an exclusive five year product manufacturing agreement to extract cannabis-derived compounds and produce pharmaceutical grade isolates.

Pursuant to both agreements, XPhyto provided the necessary start-up funding for any testing and manufacturing equipment and equipment and facility upgrades, as well as all ongoing operational expenses and business marketing. The Faculty shall provide qualified staff, certified laboratory facilities, and ongoing regulatory support. Any necessary testing or manufacturing services not available within the Faculty's facilities shall be outsourced and coordinated by the Faculty.

With respect to analytical testing, the Company entered into a Service Agreement Term Sheet dated May 30, 2018 with the Faculty. Further to the Service Agreement Term Sheet, on September 28, 2018, the Company and the Board of Governors of UoA, executed a Commercial Analytical Lab Development and Services Agreement for the co-develop of a commercial grade analytical lab at UoA for the purpose of testing cannabis and other plant-based medicines.

The agreement contemplates that the parties will enter into a service agreement under which the UoA will provide analytical testing services to the Company and others. The service agreement will have an initial 5-year term and require the Company to pay the UoA for its costs to operate and maintain the facility. Any profit (net revenue) from service fees will first be applied to pay to the Company an amount equal to 125% of its capital expenditures in developing and establishing the analytical testing facility. Once the 125% threshold has been achieved, the Company and the UoA will equally share in profits (net revenues) from service fees.

The Company is responsible to fund the development and construction of the analytical testing facility. The Company has paid substantially all expected development costs including equipment, training, and facility upgrades.

On December 7, 2018, the Company and the UoA executed an exclusive five-year product manufacturing agreement pursuant to which the Faculty agreed to manufacture cannabis-based extracts and isolates. The Company is responsible to provide any necessary equipment for the manufacture of the extracts and isolates and will pay UoA an annual fee estimated at \$140,000. The equipment has been delivered and is awaiting commissioning. Commissioning has currently been delayed due to the COVID-19 situation as the supplier has an employee travel ban in place.

The purpose of XPhyto's analytical testing agreement is two-fold: 1) to provide third-party testing services to Canadian cannabis cultivators, wholesalers and retailers; and 2) to provide in-house testing for XPhyto's manufacturing business. XPhyto does not intend to cultivate cannabis in Canada nor does it intend to sell cannabis in Canada. Accordingly, XPhyto believes it will be well positioned to provide independent analytical services to both growers and purchasers. The Company is reviewing the viability of its testing business.

Management's Discussion and Analysis December 31, 2021

Manufacturing capability, focused on production of pharmaceutical grade isolates and other plant-based medical and nutraceutical compounds, is designed to provide XPhyto with access to materials for use in subsequent phases of its business development, namely formulation and pilot studies. Certified in-house testing combined with its manufacturing capability is expected to help facilitate access to quality product on a consistent and timely basis. The Company is reviewing the viability of its extraction business.

On November 5, 2020, the Company signed an addendum to the Exclusive Dealing Agreement to include a wide range of psychedelic compounds under Loebenberg's recently acquired psychedelic testing and research licences from Health Canada.

In February 2021, the Company signed an agreement with API for the synthesis of pharmaceutical grade psychedelic compounds and the parallel development of the standard operating procedures necessary to obtain regulatory approval for the respective commercial production process. The Company will fund all infrastructure and initial lab set up costs which are estimated at \$663,000. The Company will also fund the monthly operation cost at \$20,000 per month. The psychedelic work at UoA is focused on the development of pharmaceutical grade EU GMP mescaline.

# **Other Projects**

In January 2020, the Company announced that it had signed a three-year definitive supply, import and distribution agreement with PharmaCielo. Pursuant to the Agreement and subject to all necessary regulatory approvals, XPhyto plans to commence the commercial import of cannabis oils and isolates with a three year minimum sales target of approximately 30,000 kg for a full range of extracted products, including 99% pure CBD and THC isolates, broad spectrum CBD oils, and full spectrum THC oils. All imported products must be EU GMP approved prior to receiving a German import licence for each individual product. The Company will work with PharmaCielo to expedite EU GMP approval once they have received local GMP approval in Colombia.

In preparation for import and commercial sales in Germany the Company has worked with PharmaCielo to identify specific products for the Germany market, engaged in the design of expanded vault capacity for storage of imported extracts, planned its import permitting strategy, and engaged with narcotics wholesalers and distributors. The Company is reviewing the viability of the proposed import business.

XPhyto's wholly owned German subsidiary, Bunker, holds a long-term lease on a decommissioned former military command centre in Bavaria. On March 29, 2019, Bunker was granted a licence for the cultivation of cannabis for scientific purposes valid until December 31, 2022. The application generally related to "production of high-quality cannabis raw material for medical and pharmaceutical uses". After a review of the costs to modify the Bunker 88 Facility and the business opportunities under a licence limited to scientific work, the Company terminated the lease agreement in Q1 2022 and does not plan to pursue cultivation of cannabis.

# 14. CRITICAL ACCOUNTING ESTIMATES

The preparation of the condensed consolidated interim financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Estimates and assumptions are continuously evaluated and are based on management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. However, actual outcomes can differ from these estimates.

Management's Discussion and Analysis December 31, 2021

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of revision and further periods if the review affects both current and future periods.

Key Sources of estimation and uncertainty

The significant assumptions about the future and other major sources of estimation uncertainty as at the end of the reporting period that have a significant risk of resulting in a material adjustment to the carrying amounts of the Company's assets and liabilities are as follows:

# i) Share-based compensation

Share-based compensation expense is estimated using the Black-Scholes option pricing model as measured on the grant date to estimate the fair value of stock options. This model involves the input of highly subjective assumptions, including the expected price volatility of the Company's common shares, the expected life of the options, and the estimated forfeiture rate. Changes in these subjective input assumptions can materially affect the fair value estimate.

#### ii) Deferred tax assets

Deferred tax assets, including those arising from un-utilized tax losses, require management to assess the likelihood that the Company will generate sufficient taxable earnings in future periods in order to utilize recognized deferred tax assets. Assumptions about the generation of future taxable profits depend on management's estimates of future cash flows. In addition, future changes in tax laws could limit the ability of the Company to obtain tax deductions in future periods. To the extent that future cash flows and taxable income differ significantly from estimates, the ability of the Company to realize the net deferred tax assets recorded at the reporting date could be impacted.

# iii) Valuation of right-of-use asset and lease liabilities

The application of IFRS 16 requires the Company to make judgments that affect the valuation of the rightof-use assets and the valuation of lease liabilities. These include: determining agreements in the scope of IFRS 16, determining the contract term and determining the interest rate used for the discounting of cash flows.

The lease term determined by the Company is comprised of the non-cancellable period of lease agreements, periods covered by an option to extend the lease if the Company is reasonably certain to exercise that option and periods covered by an option to terminate the lease if the Company is reasonably certain not to exercise those options.

The present value of the lease payment is determined using a discount rate representing the rate of its loan payable observed in the period when the lease agreement commences or is modified.

# iv) Intangible assets and goodwill

Management has determined that capitalized intangible asset costs may have future economic benefits and may be economically recoverable. Management uses estimates in determining the recoverable amount of intangible assets and goodwill. The determination of the recoverable amount for the purposes of impairment testing requires the use of estimates, such as anticipated future cash flows and discount rates.

The amortization expense related to intangible assets is determined using estimates relating to the useful life of the intangible asset.

Management's Discussion and Analysis December 31, 2021

Significant judgments in applying accounting policies

The critical judgments that the Company's management has made in the process of applying the Company's accounting policies, apart from those involving estimations, that have the most significant effect on the amounts recognized in the Company's consolidated financial statements are as follows:

# i) Business combinations

The determination of whether a set of assets acquired, and liabilities assumed constitute a business may require the Company to make certain judgments, taking into account all facts and circumstances. A business is presumed to be an integrated set of activities and assets capable of being conducted and managed for the purpose of providing a return in the form of dividends, lower costs or economic benefits. The transaction with 3a-diagnostics GmbH was determined to constitute a business acquisition.

# ii) Determination of functional currency

The Company determines the functional currency through an analysis of several indicators such as expenses and cash flow, financing activities, retention of operating cash flows, and frequency of transactions within the reporting entity.

# 15. NEW STANDARDS NOT YET ADOPTED

Certain new accounting standards and interpretation have been issued that are not mandatory for reporting periods ending December 31, 2021 and have not been early adopted by the Company. These standards are not expected to have a material impact on the Company in the current or future reporting periods and on foreseeable future transactions.

#### 16. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

#### Fair Value

Cash is carried at fair value using level 1 fair value measurement. The carrying value of amounts receivables, accounts payable and accrued liabilities approximate their fair value because of the short-term nature of these instruments. The carrying value of convertible debt and lease liabilities approximates fair value as there has not been any significant changes in interest rates since initial recognition.

The Company records certain of its financial instruments at fair value using various techniques. These include estimates of fair values based on prevailing market prices (bid and ask prices, as appropriate) for instruments with similar characteristics and risk profiles or internal and external valuation models, such as discounted cash flow analyses, using, to the extent possible, observable market-based inputs.

The financial instruments have been characterized on a fair value hierarchy based on whether the inputs to those valuation techniques are observable (inputs reflect market data obtained from independent sources) or unobservable (inputs reflect the Company's market assumptions).

The three levels of fair value estimation are:

Level 1 – quoted prices in active markets for identical instruments.

Level 2 – quoted prices in active markets for similar instruments; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.

Management's Discussion and Analysis December 31, 2021

Level 3 – valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

The Company has exposures to risks of varying degrees of significance which could affect its ability to achieve its strategic objectives. The type of risk exposure and the way in which such exposure is managed is provided as follows:

# Credit Risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Company's maximum exposure to credit risk at December 31, 2021 under its financial instruments is approximately \$1.9 million.

Most of the Company's cash is held with a major financial institution in Canada and management believes the exposure to credit risk with respect to such institutions is not significant. The Company actively monitors its amounts receivable and believes the exposure to credit risk is insignificant.

#### Interest rate risk

Interest rate risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company currently has no debt subject to variable interest rates. Accordingly, the Company has limited exposure to interest rate movements.

# Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its obligations associated with financial liabilities. The Company has a planning and budgeting process in place by which it projects the funds required to support its operations.

Management and the Board of Directors are actively involved in the review, planning, and approval of significant expenditures and commitments.

The following is a summary of the maturities for the Company's lease liabilities as at December 31, 2021:

	Up to 1 year	1 - 2 years \$	> 2 years \$
Lease liabilities	153,799	218,496	713,295

# Foreign exchange rate risk

The Company operates in Canada and Germany and is, therefore, exposed to foreign exchange risk arising from transactions denominated in a foreign currency. The operating results and the financial position of the Company are reported in Canadian dollars. The fluctuations of the operating currencies in relation to the Canadian dollar will, consequently, have an impact upon the reporting results of the Company, and may also affect the value of the Company's assets and liabilities. The Company has not entered into any agreements or purchased any instruments to hedge possible currency risks at this time.

Management's Discussion and Analysis December 31, 2021

The Company is exposed to foreign currency risk through the following financial assets and liabilities held in the following Canadian dollar equivalents:

	December 31,	December 31,
	2021	2020
	Euro	Euro
Cash	1,007,842	339,645
Amounts receivable	457,537	245,457
Total financial assets	1,465,379	585,102
Accounts payable and accrued liabilities	(1,593,816)	(708,410)
Lease liability	(818,038)	(908,267)
Net statement of financial position exposure	(946,475)	(1,031,575)

At December 31 2021, a 10% appreciation (depreciation) in the value of the Euro against the Canadian dollar, with all other variables held constant, would result in approximately a \$95,000 increase (decrease) in the Company's net loss for the year.

# 17. Subsequent Events to December 31, 2021

- 1) In January 2022, debentures with a principal amount of \$100,000 were converted by the holder into 100,000 common shares.
- 2) On February 22, 2022, the Company issued 350,000 common shares for proceeds of \$175,000 in connection with the exercise of 350,000 stock options.
- 3) On March 18, 2022, the Company issued 364,000 common shares for proceeds of \$182,000 in connection with the exercise of 364,000 stock options.
- 4) On March 31, 2022, the Company closed the first tranche of a non-brokered private placement and issued 1,250,000 common shares at \$1.00 per common share for gross proceeds of \$1,250,000. The Company paid finder fees of \$100,000 and also issued 100,000 finders warrants to purchase an aggregate of 100,000 common shares at an exercise price of \$1.00 per share for a period of two years from closing.
- 5) On April 22, 2022, the Company closed the second and final tranche of a non-brokered private placement and issued 1,050,000 common shares at \$1.00 per common share for gross proceeds of \$1,050,000. The Company paid finder fees of \$84,000 and also issued 84,000 finders warrants to purchase an aggregate of 100,000 common shares at an exercise price of \$1.00 per share for a period of two years from closing.
- 6) 1,258,000 warrants with an exercise price between \$1.50 and \$2.00 per share expired unexercised.
- 7) 150,000 stock options with an exercise price between \$2.10 and \$2.50 per share expired unexercised.

# 18. RISKS AND UNCERTAINTIES

## Conflicts of Interest

Certain directors of the Company also serve as directors and/or officers of other companies involved in other business ventures. Consequently, there exists the possibility for such directors to be in a position of conflict. Any decision made by such directors involving the Company will be made in accordance with their duties and obligations to deal fairly and in good faith with the Company and such other companies. In

Management's Discussion and Analysis December 31, 2021

addition, such directors will declare, and refrain from voting on, any matter in which such directors may have a conflict of interest.

# Negative Operating Cash Flows

As the Company is an early-stage start-up it may continue to have negative operating cash flows. Without the injection of further capital and the development of revenue streams from its business, the Company may continue to have negative operating cash flows until it can realize stable cash flow from operations.

# Risks Related as a Going Concern

The ability of the Company to continue as a going concern is uncertain and dependent upon its ability to achieve profitable operations, obtain additional capital and receive continued support from its shareholders. Management of the Company will have to raise capital through private placements or debt financing and proposes to continue to do so through future private placements and offerings. The outcome of these matters cannot be predicted at this time.

## Reliance on Key Personnel and Advisors

The Company relies heavily on its officers and directors. The loss of their services may have a material adverse effect on the business of the Company. There can be no assurance that one or all of the employees of, and contractors engaged by, the Company will continue in the employ of, or in a consulting capacity to, the Company or that they will not set up competing businesses or accept positions with competitors. There is no guarantee that certain employees of, and contractors to, the Company who have access to confidential information will not disclose the confidential information.

# Management's Responsibility for the Financial Statements

The information provided in this report is the responsibility of management. In the preparation of these statements, estimates are sometimes necessary to make a determination of future values for certain assets or liabilities. Management believes such estimates have been based on careful judgments and have been properly reflected in the accompanying consolidated financial statements.

# COVID-19

In March 2020, the World Health Organization declared coronavirus 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, customers, economies, and financial markets globally, potentially leading to an economic downturn. It has also disrupted the normal operations of many businesses, including the Company's. This outbreak could decrease spending, adversely affect and harm our business and results of operations. It is not possible for the Company to predict the duration or magnitude of the adverse results of the outbreak and its effects on the Company's business or results of operations at this time.

## Risk Factors

# Market Risk for Securities

We are an issuer company whose common shares are not listed for trading on a stock exchange. There can be no assurance that an active trading market for our common shares will be established and sustained. Upon a listing, the market price for our common shares could be subject to wide fluctuations.

Management's Discussion and Analysis December 31, 2021

Factors such as government regulation, interest rates, share price movements of peer companies and competitors, as well as overall market movements, may have a significant impact on the market price of our securities. The stock market has from time to time experienced extreme price and volume fluctuations, which have often been unrelated to the operating performance of particular companies.

#### Uninsured or Uninsurable Risk

We may become subject to liability for risks against which we cannot insure or against which we may elect not to insure due to the high cost of insurance premiums or other factors. The payment of any such liabilities would reduce the funds available for our usual business activities. Payment of liabilities for which we do not carry insurance may have a material adverse effect on our financial position and operations.

# Key Personnel Risk

Our success will depend on our directors and officers to develop our business and manage our operations, and on our ability to attract and retain key quality assurance, scientific, sales, public relations and marketing staff or consultants once operations begin. The loss of any key person or the inability to find and retain new key persons could have a material adverse effect on our business. Competition for qualified technical, sales and marketing staff, as well as officers and directors can be intense and no assurance can be provided that we will be able to attract or retain key personnel in the future, which may adversely impact our operations.

# No Established Market for Shares Risk

There is currently no established trading market through which common shares in our authorized capital may be sold. Even if a trading market develops, there can be no assurance that such market will continue in the future. You may lose your entire investment.

#### Dividend Risk

We have not paid dividends in the past and do not anticipate paying dividends in the near future. We expect to retain any earnings to finance further growth and, when appropriate, retire debt.

# Share Price Volatility Risk

It is anticipated that our common shares will be listed for trading on the Exchange. As such, external factors outside of our control such as announcements of quarterly variations in operating results, revenues and costs, and sentiments toward the cannabis sector stocks may have a significant impact on the market price of our common shares. Global stock markets including the Exchange, have from time to time experienced extreme price and volume fluctuations that have often been unrelated to the operations of particular companies. There can be no assurance that an active or liquid market will develop or be sustained for the common shares.

The Company's actual financial position and results of operations may differ materially from the expectations of the Company's management.

The Company's actual financial position and results of operations may differ materially from management's expectations. As a result, the Company's revenue, net income and cash flow may differ materially from the

Management's Discussion and Analysis December 31, 2021

Company's projected revenue, net income and cash flow. The process for estimating the Company's revenue, net income and cash flow requires the use of judgment in determining the appropriate assumptions and estimates. These estimates and assumptions may be revised as additional information becomes available and as additional analyses are performed. In addition, the assumptions used in planning may not prove to be accurate, and other factors may affect the Company's financial condition or results of operations.

Nature of the Business Model

Probable lack of business diversification.

Because the Company will be focused on developing its business ancillary to the cannabis industry, and potentially directly in the cannabis industry, the prospects for the Company's success will be dependent upon the future performance and market acceptance of the Company's intended facilities, products, processes, and services. Unlike certain entities that have the resources to develop and explore numerous product lines, operating in multiple industries or multiple areas of a single industry, the Company does not anticipate the ability to immediately diversify or benefit from the possible spreading of risks or offsetting of losses. Again, the prospects for the Company's success may become dependent upon the development or market acceptance of a very limited number of facilities, products, processes or services.

The Company expects to incur significant ongoing costs and obligations related to its investment in infrastructure, growth, regulatory compliance and operations.

The Company expects to incur significant ongoing costs and obligations related to its investment in infrastructure and growth and for regulatory compliance, which could have a material adverse impact on the Company's results of operations, financial condition and cash flows. In addition, future changes in regulations, more vigorous enforcement thereof or other unanticipated events could require extensive changes to the Company's operations, increased compliance costs or give rise to material liabilities, which could have a material adverse effect on the business, results of operations and financial condition of the Company. The Company's efforts to grow its business may be costlier than the Company expects, and the Company may not be able to increase its revenue enough to offset its higher operating expenses. The Company may incur significant losses in the future for a number of reasons, and unforeseen expenses, difficulties, complications and delays, and other unknown events. If the Company is unable to achieve and sustain profitability, the market price of the Common Shares may significantly decrease.

There is no assurance that the Company will turn a profit or generate immediate revenues.

There is no assurance as to whether the Company will be profitable, earn revenues, or pay dividends. The Company has incurred and anticipates that it will continue to incur substantial expenses relating to the development and initial operations of its business.

The payment and amount of any future dividends will depend upon, among other things, the Company's results of operations, cash flow, financial condition, and operating and capital requirements. There is no assurance that future dividends will be paid, and, if dividends are paid, there is no assurance with respect to the amount of any such dividends.

Management's Discussion and Analysis December 31, 2021

The Company may not be able to effectively manage its growth and operations, which could materially and adversely affect its business.

The Company has grown by acquisition. If the Company implements it business plan as intended, it may in the future experience rapid growth and development in a relatively short period of time. The management of this growth will require, among other things, continued development of the Company's financial and management controls and management information systems, stringent control of costs, the ability to attract and retain qualified management personnel and the training of new personnel. The Company intends to utilize outsourced resources, and hire additional personnel, to manage its expected growth and expansion. Failure to successfully manage its possible growth and development could have a material adverse effect on the Company's business and the value of the Common Shares.

The Company may be unable to adequately protect its proprietary and intellectual property rights

The Company's ability to compete may depend on the superiority, uniqueness and value of any intellectual property and technology that it may develop. To the extent the Company is able to do so, to protect any proprietary rights of the Company, the Company intends to rely on a combination of patent, trademark, copyright and trade secret laws, confidentiality agreements with its employees and third parties, and protective contractual provisions. Despite these efforts, any of the following occurrences may reduce the value of any of the Company's intellectual property:

- patents in the cannabis industry involve complex legal and scientific questions and patent protection may not be available for some or any products; the Company's applications for trademarks and copyrights relating to its business may not be granted and, if granted, may be challenged or invalidated;
- issued patents, trademarks and registered copyrights may not provide the Company with competitive advantages; the Company's efforts to protect its intellectual property rights may not be effective in preventing misappropriation of any its products or intellectual property;
- the Company's efforts may not prevent the development and design by others of products or marketing strategies similar to or competitive with, or superior to those the Company develops;
- another party may assert a blocking patent and the Company would need to either obtain a license or design around the patent in order to continue to offer the contested feature or service in its products; or
- the expiration of patent or other intellectual property protections for any assets owned by the Company could result in significant competition, potentially at any time and without notice, resulting in a significant reduction in sales. The effect of the loss of these protections on the Company and its financial results will depend, among other things, upon the nature of the market and the position of the Company's products in the market from time to time, the growth of the market, the complexities and economics of manufacturing a competitive product and regulatory approval requirements but the impact could be material and adverse.

Management's Discussion and Analysis December 31, 2021

The Company may be forced to litigate to defend its intellectual property rights, or to defend against claims by third parties against the Company relating to intellectual property rights.

The Company may be forced to litigate to enforce or defend its intellectual property rights, to protect its trade secrets or to determine the validity and scope of other parties' proprietary rights. Any such litigation could be very costly and could distract its management from focusing on operating the Company's business. The existence and/or outcome of any such litigation could harm the Company's business. Further, because the content of much of the Company's intellectual property concerns cannabis and other activities that are not legal in some U.S. state jurisdictions or under U.S. federal law, the Company may face additional difficulties in defending its intellectual property rights.

The Company may become subject to litigation, including for possible product liability claims, which may have a material adverse effect on the Company's reputation, business, results from operations, and financial condition.

The Company may be named as a defendant in a lawsuit or regulatory action. The Company may also incur uninsured losses for liabilities which arise in the ordinary course of business, or which are unforeseen, including, but not limited to, employment liability and business loss claims. Any such losses could have a material adverse effect on the Company's business, results of operations, sales, cash flow or financial condition.

The Company faces competition from other companies where it will conduct business that may have higher capitalization, more experienced management or may be more mature as a business.

An increase in the number of companies competing in this industry could limit the ability of the Company to expand its operations. Current and new competitors may have better capitalization, a longer operating history, more expertise and able to develop higher quality equipment or products, at the same or a lower cost. The Company cannot provide assurances that it will be able to compete successfully against current and future competitors. Competitive pressures faced by the Company could have a material adverse effect on its business, operating results and financial condition.

If the Company is unable to attract and retain key personnel, it may not be able to compete effectively in the market.

The Company's success has depended and continues to depend upon its ability to attract and retain key management, including the Company's Chief Executive Officer, Chief Financial Officer, and technical experts. The Company will attempt to enhance its management and technical expertise by continuing to recruit qualified individuals who possess desired skills and experience in certain targeted areas. The Company's inability to retain employees and attract and retain sufficient additional employees or engineering and technical support resources could have a material adverse effect on the Company's business, results of operations, sales, cash flow or financial condition. Shortages in qualified personnel or the loss of key personnel could adversely affect the financial condition of the Company, results of operations of the business and could limit the Company's ability to develop and market its cannabis-related products. The loss of any of the Company's senior management or key employees could materially adversely affect the Company's ability to execute the Company's business plan and strategy, and the Company may not be able to find adequate replacements on a timely basis, or at all. The Company does not maintain key person life insurance policies on any of the Company's employees.

Management's Discussion and Analysis December 31, 2021

There is no assurance that the Company will obtain and retain any relevant licences.

If obtained, any licences are expected to be subject to ongoing compliance and reporting requirements. Failure by the Company to comply with the requirements of licences or any failure to maintain licences would have a material adverse impact on the business, financial condition and operating results of the Company.

The size of the Company's target market is difficult to quantify, and investors will be reliant on their own estimates on the accuracy of market data.

Because the cannabis industry is in an early stage with uncertain boundaries, there is a lack of information about comparable companies available for potential investors to review in deciding about whether to invest in the Company and, few, if any, established companies whose business model the Company can follow or upon whose success the Company can build. Accordingly, investors will have to rely on their own estimates in deciding about whether to invest in the Company. There can be no assurance that the Company's estimates are accurate or that the market size is sufficiently large for its business to grow as projected, which may negatively impact its financial results. The Company regularly purchases and follows market research.

The Company's industry is experiencing rapid growth and consolidation that may cause the Company to lose key relationships and intensify competition.

The cannabis industry and businesses ancillary to and directly involved with cannabis businesses are undergoing rapid growth and substantial change, which has resulted in an increase in competitors, consolidation and formation of strategic relationships. Acquisitions or other consolidating transactions could harm the Company in a number of ways, including by losing strategic partners if they are acquired by or enter into relationships with a competitor, losing customers, revenue and market share, or forcing the Company to expend greater resources to meet new or additional competitive threats, all of which could harm the Company's operating results. As competitors enter the market and become increasingly sophisticated, competition in the Company's industry may intensify and place downward pressure on retail prices for its products and services, which could negatively impact its profitability. The Company continues to sell shares for cash to fund operations, capital expansion, mergers and acquisitions that will dilute the current shareholders.

There is no guarantee that the Company will be able to achieve its business objectives. The continued development of the Company will require additional financing. The failure to raise such capital could result in the delay or indefinite postponement of current business objectives or the Company going out of business. There can be no assurance that additional capital or other types of financing will be available if needed or that, if available, the terms of such financing will be favourable to the Company.

If additional funds are raised through 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 holders of Common Shares. The Company's articles permit the issuance of an unlimited number of Common Shares, and shareholders will have no pre-emptive rights in connection with such further issuance. The directors of the Company have discretion to determine the price and the terms of issue of further issuances. Moreover, additional Common Shares will be issued by the Company on the exercise of options under the Stock Option Plan and upon the exercise of outstanding Warrants. In addition, from time to time, the Company may enter into transactions to acquire assets or the

Management's Discussion and Analysis December 31, 2021

shares of other companies. These transactions may be financed wholly or partially with debt, which may temporarily increase the Company's debt levels above industry standards. 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 and to pursue business opportunities, including potential acquisitions. The Company may require additional financing to fund its operations to the point where it is generating positive cash flows. Negative cash flow may restrict the Company's ability to pursue its business objectives.

The Company could be liable for fraudulent or illegal activity by its employees, contractors and consultants resulting in significant financial losses to claims against the Company.

The Company is exposed to the risk that its employees, independent contractors and consultants may engage in fraudulent or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to the Company that violate government regulations. It is not always possible for the Company to identify and deter misconduct by its employees and other third parties, and the precautions taken by the Company to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting the Company from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against the Company, and it is not successful in defending itself or asserting its rights, those actions could have a significant impact on the Company's business, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of the Company's operations, any of which could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company will be reliant on information technology systems and may be subject to damaging cyberattacks.

The Company has not experienced any material losses to date relating to cyber-attacks or other information security breaches, but there can be no assurance that the Company will not incur such losses in the future. The Company's risk and exposure to these matters cannot be fully mitigated because of, among other things, the evolving nature of these threats. As a result, cyber security and the continued development and enhancement of controls, processes and practices designed to protect systems, computers, software, data and networks from attack, damage or unauthorized access is a priority. As cyber threats continue to evolve, the Company may be required to expend additional resources to continue to modify or enhance protective measures or to investigate and remediate any security vulnerabilities.

In certain circumstances, the Company's reputation could be damaged.

Damage to the Company's reputation can be the result of the actual or perceived occurrence of any number of events, and could include any negative publicity, whether true or not. The increased usage of social media and other web-based tools used to generate, publish and discuss user-generated content and to connect with other users has made it increasingly easier for individuals and groups to communicate and share opinions and views regarding the Company and its activities, whether true or not. Although the Company believes that it operates in a manner that is respectful to all stakeholders and that it takes care in protecting its image and reputation, the Company does not ultimately have direct control over how it is perceived by others. Reputation loss may result in decreased investor confidence, increased challenges in developing and maintaining community relations and an impediment to the Company's overall ability to advance its projects, thereby having a material adverse impact on financial performance, financial condition,

Management's Discussion and Analysis December 31, 2021

cash flows and growth prospects.

No guarantee on the use of available funds by the Company.

The Company cannot specify with certainty the particular uses of available funds. Management has broad discretion in the application of its proceeds. Accordingly, a holder of Common Shares will have to rely upon the judgment of management with respect to the use of available funds, with only limited information concerning management's specific intentions. The Company's management may spend a portion or all of the available funds in ways that the Company's shareholders might not desire, that might not yield a favourable return and that might not increase the value of a purchaser's investment. The failure by management to apply these funds effectively could harm the Company's business. Pending use of such funds, the Company might invest the available funds in a manner that does not produce income or that loses value.

# Currency Fluctuations.

A significant portion of the Company's German subsidiary expenses are expected to be denominated in Euros, and therefore may be exposed to significant currency exchange fluctuations. Recent events in the global financial markets have been coupled with increased volatility in the currency markets. Fluctuations in the exchange rate between the Euro and the Canadian dollar may have a material adverse effect on the Company's business, financial condition and operating results. The Company may, in the future, establish a program to hedge a portion of its foreign currency exposure with the objective of minimizing the impact of adverse foreign currency exchange movements. However, even if the Company develops a hedging program, there can be no assurance that it will effectively mitigate currency risks.

## 19. OUTSTANDING SHARE DATA

Authorized and issued share capital as at April 29, 2022:

Class	Par Value	Authorized	Issued Number
Common	No par value	Unlimited	80,767,034

- As at April 29, 2022 there were 5,511,000 stock options outstanding.
- As at April 29, 2022, there were 4,803,125 warrants outstanding

# 20. OTHER INFORMATION

Additional information on the Company is available on SEDAR at www.sedar.com.