

MUSTGROW BIOLOGICS CORP.

Management's Discussion and Analysis

For the Year Ended December 31, 2021

General

This management discussion and analysis of financial position and results of operations ("MD&A") is prepared as at April 26, 2022 and should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2021 and related notes of MustGrow Biologics Corp. ("MustGrow" or the "Company"). The audited consolidated financial statements were prepared in accordance with International Financial Reporting Standards ("IFRS") issued by the International Accounting Standards Board ("IASB") and interpretations of the IFRS Interpretations Committee ("IFRIC").

Management is responsible for the preparation and integrity of the Company's consolidated financial statements, including the maintenance of appropriate information systems, procedures and internal controls. Management is also responsible for ensuring that information disclosed externally, including the financial statements and MD&A, is complete and reliable.

All dollar amounts included therein and in the following MD&A are expressed in Canadian dollars except where noted. This discussion contains forward-looking statements that involve risks and uncertainties. Such information, although considered to be reasonable by the Company's management at the time of preparation, may prove to be inaccurate and actual results may differ materially from those anticipated in the statements made. Additional information on the Company is available for viewing on SEDAR at www.sedar.com.

History and Description of Business

On March 13, 2018 the Company completed a three-cornered amalgamation (the "Amalgamation") pursuant to an amalgamation agreement between the Company, MPT Mustard Products & Technologies Inc. ("MPT") and 102023826 Saskatchewan Ltd. ("Subco"). Pursuant to the terms of the amalgamation agreement, the Company acquired all of the issued and outstanding MPT common shares and MPT common share purchase warrants in exchange for the Company's common shares and common share purchase warrants and MPT and Subco amalgamated pursuant to the provisions of *The Business Corporations Act* (Saskatchewan). The Company issued one common share for every two MPT common shares and one warrant for every two MPT warrants, for aggregate consideration of 10,454,154 common shares (post-consolidation) of the Company and 1,289,837 warrants of the Company being issued to the MPT shareholders and warrant holders.

On March 29, 2018, the Company changed its name to MustGrow Biologics Corp.

On January 1, 2020, the Company and its wholly owned subsidiary, MPT, amalgamated and continued operations as MustGrow Biologics Corp.

On May 7, 2020, the Company formed a wholly owned subsidiary, MustGrow Biologics Colombia S.A.S. to pursue market opportunities in South America. On November 10, 2021, the Company announced that the Company's South American product development program would transition to its collaborator, Sumitomo Corporation. Accordingly, the Company's subsidiary was no longer required and MustGrow Biologics Colombia S.A.S. was wound up on March 31, 2022.

The Company is a publicly traded (CSE: MGRO) (OTC: MGROF) (FRA: 0C0) agricultural biotechnology company focused on providing natural science-based biological solutions for high value crops and other industries. The Company has designed and owns a United States Environmental Protection Agency ("**EPA**") approved biopesticide that uses the mustard seed's natural defense mechanism to protect plants from soil-borne microbial diseases and pests. Approximately 110 independent tests have been completed, validating the Company's safe and effective technology. This technology, in granule format, is EPA-approved across all key US states (excluding California) as a biopesticide and is designated by Health Canada's Pest Management Regulatory Agency ("**PMRA**") as biopesticide. The Company has now concentrated a new liquid format to be applied through injection, standard drip or spray equipment, designed to improve functionality and performance features. EPA-approval for the new liquid formulation is in process.

Operations

The Company is developing natural, plant-based biological solutions to replace and/or complement synthetic chemicals used in high value crops and other applications.

The research, development and regulatory pathway for biological pesticides and herbicides typically begins with laboratory work that verifies that the active ingredient and formulation will have the desired neutralizing effect on the pest of interest in a controlled environment, at small scale. This laboratory phase may take one to two years and cost up to approximately \$100,000 (estimate). If these results are positive, the trial work can proceed to a greenhouse environment where the scale is larger, but conditions remain controlled in the confines of the greenhouse. Validation in the greenhouse phase may take one to two years and cost approximately \$100,000 to \$500,000 (estimate). If these results are positive, the next step would be to test the technology in "real world" conditions in field trials. These trials are conducted on the crops and pests of interest in typical, commercial growing environments. These are larger, costlier trials that will typically span a growing season or more and test different application methods and rates. In order to achieve regulatory approval for commercial use of a new biological pesticide/product, additional safety and efficacy trials will be required as determined by the pertinent regulatory agency (for example in the US, the EPA, and in Canada, the PMRA). This phase of product development may cost approximately \$1 million to \$5 million or more and take two to three years (estimate). In addition, registration in other foreign jurisdictions may cost approximately \$5 million to \$10 million and take three to seven years (estimate).

The Company's product development model emphasizes collaboration with industry participants who have substantial resources and experience in pesticide technology commercialization. Typically, industry partners will conduct trials at their expense. Therefore, it is unlikely that the

Company would bear the entire product development burden on its own and would be able to access the know-how, research, development and regulatory expertise of industry participants.

On August 4, 2021, the Company announced that it entered into an exclusive evaluation and option agreement with Sumitomo Corporation ("Sumitomo") to evaluate the Company's technology for its efficacy and commercial potential. Pursuant to the agreement, the Company granted Sumitomo, amongst other things, the intellectual property rights for testing and the option to acquire exclusive rights to MustGrow's technology for preplant soil fumigation, bioherbicide, postharvest and food preservation for potatoes, and bananas in North, Central, and South America.

On December 14, 2021, the Company announced an expansion of the Sumitomo collaboration program to include development work in Mexico, Peru and Chile across multiple crops and applications. The Company and Sumitomo also commenced regulatory work in multiple countries across South and Central America in addition to the ongoing US EPA approval process.

On January 21, 2022, the Company announced that it entered into an exclusive evaluation and option agreement with Bayer AG ("Bayer") to evaluate the Company's technology for its efficacy and commercial potential. Pursuant to the agreement, the Company granted Bayer, amongst other things, the intellectual property rights for testing and the option to acquire exclusive rights to MustGrow's technology for preplant soil fumigation, bioherbicide, postharvest and food preservation for potatoes in Europe, Asia Pacific, Middle East and Africa.

On April 20, 2022, the Company announced that it entered into an exclusive evaluation and option agreement with Janssen PMP, a division of Janssen Pharmaceutica NV, one of the Janssen Pharmaceutical companies of Johnson and Johnson. Pursuant to the agreement, the Company granted Janssen PMP the exclusive right to test the Company's technologies for postharvest storage preservation of fruits and vegetables globally, excluding grains, potatoes, bananas and shipping container fumigation.

The Company's technology pipeline is presented below and describes, for each application, the stage of development and the steps to reach regulatory approval, which will facilitate commercial sales. Please refer to the discussion under the "Technology and Products" section of the Company's AIF filed on SEDAR.

Technology Pipeline

APPLICATIONS	TARGET	ESTIMATED MARKET SIZE / LOSS	PROOF OF CONCEPT	EARLY DEVELOPMENT	ADVANCED DEVELOPMENT	REGISTRATION
			Laboratory	Greenhouse	Field Trials	Pre-Launch
Preplant Soil Biofumigant	Soil-borne diseases and pests					
All Crops – Fruits & Veg, Potatoes, Broad Acre, Turf & Ornamental, etc.	Fusarium, Botrytis, Verticillium, Rhizoctonia, Pythium, Phytophthora, Sclerotinia, Nematodes, etc.	US\$1.3 Billion Estimated Global Market Size in Fruit & Vegetable	→			TerraMG US-EPA registration in process
Bananas	Fusarium wilt TR4	US\$18 Billion Estimated Global Loss	→			
Canola	Clubroot (<i>Plasmodiophora brassicae</i>)	C\$500 Million Estimated Economic Loss in Canada	→			
Pulse Crops: Peas, Lentils, Legumes, etc.	Aphanomyces	C\$100 Million Estimated Economic Loss in Canada	→			
Bioherbicide	Weeds	US\$35 Billion Estimated Global Market Size	→			
Postharvest Food Preservation	Storage biopesticide and food preservation					
Storage: Potato, Fruit & Vegetable*	Sprouting, diseases and pests	US\$250 Million Estimated Global Market	→			
Storage: Bulk Grain*	Mycotoxins and pests	US\$15 Billion Estimated Global Loss	→			
Storage: Shipping Containers*	Diseases and pests	US\$2 Billion Estimated Global Market Size	→			
Food-Borne Pathogens*	E.coli, Salmonella, Listeria, Staphylococcus	US\$15 Billion Estimated Global Market Size	→			

Source: Globenewire, 3rd Party Ag Market Researcher, MustGrow estimates.
*Literature shows AITC has application in these areas.

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In addition to mustard-based technology, MustGrow has licensed a powdery mildew biofungicide product from a third party for use in Canada on cannabis and hemp. This biofungicide was used widely in the cannabis industry under the trade name Actinovate[®], but was discontinued when the owner removed cannabis from the label. MustGrow re-branded this biofungicide as CannaPM[™] and received regulatory approval from the PMRA in early 2021. CannaPM[™] contains *Streptomyces lydicus* WYEC 108, a beneficial bacteria and natural enemy of fungal pathogens, thus offering cannabis and hemp growers a tool to protect their crops. In 2021, the Company realized first sales of CannaPM[™].

Financing Activities

The Company completed a private placement of common shares and issued 1,662,533 shares on March 12, 2019 and 50,000 shares on March 13, 2019, in the aggregate amount of 1,712,533 shares, at \$0.70 per common share for gross proceeds of \$1,198,773 (the “March 2019 Private Placement”). Net proceeds after share issuance costs were \$1,151,532.

On December 10, 2019, the Company completed a private placement of 11,139,879 units (the “2019 Unit Offering”) consisting of one common share and one-half warrant to purchase one common share. Issue price was \$0.35 per unit. Proceeds, net of cash issuance costs, were \$3,689,557.

During the year ended December 31, 2020, the Company issued 4,167,765 common shares for proceeds totaling \$1,826,807 on the exercise of stock options and warrants.

On October 6, 2021, the Company completed a private placement of 2,726,611 units (the “2021 Unit Offering”) consisting of one common share and one-half warrant to purchase one common share at \$4.00 per share (the “2021 Unit”). Issue price was \$2.60 per 2021 Unit and gross proceeds were \$7,089,189. Net proceeds after share issuance costs were \$6,585,906.

On November 4, 2021, the Company issued 56,366 common shares at the fair value of \$3.65 per share to fully repay a \$205,734 note payable to an independent party.

During the year ended December 31, 2021, the Company issued 4,508,411 common shares for proceeds totaling \$2,133,047 on the exercise of warrants.

Selected Annual Information

	2021 \$	2020 \$	2019 \$
Revenue	12,869	0	0
Net loss	3,063,875	3,309,926	1,518,038
Net loss per share, basic and diluted	0.07	0.09	0.06
Assets	9,701,950	3,372,050	4,092,666
Non-current financial liabilities	382,271	696,503	382,271
Cash dividends per share	0	0	0

Results of Operations

Revenue in 2021 came from first sales of CannaPM™.

For the years ended December 31, 2021, 2020 and 2019, the Company incurred losses of \$3,063,875, \$3,309,926 and \$1,518,038, respectively. The variation from year to year was driven primarily by the expense levels presented in the table below. The financing activities described above provided the cash resources to accelerate operations and to increase expense levels in the 2020 and 2021 periods.

	Years ended December 31,		
	2021	2020	2019
Expenses			
Research and development	\$ 458,382	\$ 149,248	\$ 82,999
Regulatory	76,531	46,436	23,259
Corporate communications	133,250	1,041,917	254,395
Transfer agent and exchange fees	206,785	122,789	94,957
Office and administration	955,635	675,393	503,616
Marketing and promotion	567,929	263,549	36,471
Patent expenses	203,591	187,678	74,187
Professional fees	151,066	105,335	277,493
Stock-based compensation	270,810	776,903	124,786
Total Expenses	\$ 3,023,979	\$ 3,369,248	\$ 1,472,163

Research and development expenses include:

- Costs related to identification and extraction of biopesticide and bioherbicide compounds from mustard seed and formulation of these compounds into biologic products ("Process Development");
- Testing of these products on various microbial diseases, pests and weeds in laboratory, greenhouse and field settings ("Trials"); and
- Fees paid to technical experts assisting with management of Process Development and Trials.

Research and development expenses increased over the three-year period as the Company increased Process Development and Trial activity on the products and crops identified in the product pipeline above.

	Years ended December 31,		
	2021	2020	2019
Process development	\$ 207,187	\$ 27,600	\$ 8,900
Trials	145,863	66,749	50,699
Management	105,332	54,899	23,400
	\$ 458,382	\$ 149,248	\$ 82,999

Regulatory expenses include renewal fees for existing product registrations and fees paid to expert consultants working with regulatory bodies to achieve registration of the Company's technology. This activity increased in 2020 as Terra-MG was presented to the US EPA and increased further in 2021 as the Company continued to prepare information for the US EPA and develop regulatory pathways in other jurisdictions.

Corporate communications expenses consist of fees paid to consultants to provide, amongst other services, the following:

- Educating customers, investors and the general public on the Company's products and technology;
- Communications with potential strategic partners, financial market participants and the research and development community relating to the Company's products, technology trials and demonstrations;
- Investigation and acquisition of projects and intellectual property; and
- Development of information packages, presentation materials, traditional and digital media services, editorials, industry commentary and interviews describing the Company, its technology, products and the target markets.

Corporate communications expenses increased in 2020 due to the following:

- Services and communication obligations arising from the expanded shareholder base following the 2019 Unit Offering;
- Increased communications resulting from the listing of the Company's common shares on the OTC and Frankfurt stock exchange (the "2020 Listings"); and
- Increased communications with industry and the research and development community driven by the increase in the Company's research and development activity.

Corporate communications expense decreased in 2021 as the commitments and obligations emanating from the 2019 Unit Offering and the 2020 Listings diminished.

Transfer agent and exchange fees increased in 2020 because of the Company's listings on the OTC and Frankfurt stock exchange. Such expenses increased again in 2021 because of increased transfer agent fees related to share issuances and warrant exercises and increased exchange fees.

The primary components of office and administration expenses are as follows.

	Years ended December 31,		
	2021	2020	2019
Management compensation	\$ 850,780	\$ 577,991	\$ 403,005
Rent	64,195	46,436	42,620
Office expenses	40,660	50,966	57,991
	<u>\$ 955,635</u>	<u>\$ 675,393</u>	<u>\$ 503,616</u>

Management compensation increased in 2021 due to the achievement of performance bonuses. Rent increased from year to year based on increased office and warehouse rental space.

Marketing and promotion expenses include trade shows, travel, content and materials development and dissemination and consulting fees paid to market development representatives. Marketing and promotion increased in 2020 as the Company expanded its activities worldwide. Such expenses increased in 2021 due to:

- Trade show and conference activity increased following 2020 which was muted due to COVID-19; and
- The Company's increased research and development activity generated more results and more news to be shared with the Company's target markets.

Patent expenses increased each year from 2019 to 2021 due to new patent filings emerging from the Company's increased research and development activity.

Professional fees include legal, audit and tax services.

Stock-based compensation increased in 2020 due to issuance of warrants to the Company's outside consultants. Such warrants were issued in lieu of cash compensation.

Cash Flows and Financial Position

Cash used in operating activities for the years ended December 31, 2021 and 2020 was \$2,411,779 and \$2,578,823, respectively.

Cash provided by financing activities for the years ended December 31, 2021 and 2020 was \$8,718,953 and \$1,862,807, respectively. In 2021, the Company received net cash proceeds of \$6,585,906 from the 2021 Unit Offering and \$2,133,047 on exercise of warrants. In 2020, the Company received 1,826,807 on exercise of warrants and options.

Total assets increased to \$9,701,950 at December 31, 2021 from \$3,372,050 at December 31, 2020 due to cash proceeds from the 2021 Unit Offering and warrant exercises, offset by cash used to fund operations.

Total liabilities increased to \$1,245,353 at December 31, 2021 from \$1,047,075 at December 31, 2020 due to an increase in accounts payable and accrued liabilities and accretion in the value of the Saskatchewan Minister of Agriculture loan.

Selected Quarterly Information

The following selected financial data has been prepared in accordance with IFRS and should be read in conjunction with the Company's financial statements. All dollar amounts are in Canadian dollars.

Quarter Ended	Revenue \$	Income (loss) for the period \$	Income (loss) per Share (Basic & Diluted) \$
December 31, 2021	0	(1,095,520)	(0.02)
September 30, 2021	12,869	(696,115)	(0.02)
June 30, 2021	0	(659,978)	(0.02)
March 31, 2021	0	(612,262)	(0.01)
December 31, 2020	0	(877,143)	(0.02)
September 30, 2020	0	(625,767)	(0.02)
June 30, 2020	0	(1,074,514)	(0.03)
March 31, 2020	0	(732,502)	(0.02)

The Company is not currently subject to seasonality fluctuations and the variation in loss for the quarterly periods reflects increased or decreased levels of research and technology development activity. The increased loss for the quarter ended December 31, 2021 was due to increased Process Development expense and management compensation expense related to achievement of performance bonuses. The increased loss for the quarter ended June 30, 2020 was due to increased stock-based compensation related to warrant and stock option issuances in the period.

Financial Condition, Liquidity and Capital Resources

The Company's working capital at December 31, 2021 was \$8,838,868 including cash of \$9,619,971. The Company does not generate positive cash flows. The Company is reliant on equity financing or shareholder loans to provide the necessary cash to acquire or participate in an active business. There can be no assurance that equity financings will be available to the Company in the future that will be obtained on terms satisfactory to the Company.

The Company has not entered into any off-balance sheet arrangements.

Related Party Transactions

During the year ended December 31, 2021, the Company incurred consulting fees and office rent of \$868,780 (2020 – \$595,991) to companies controlled by directors and officers of the Company.

During the year ended December 31, 2021, stock-based compensation related to stock options issued to directors and officers of the Company totaled \$182,957 (2020 – \$240,526).

As at December 31, 2021 there was \$268,922 accrued and payable to directors and officers of the Company (2020 – \$38,939).

Financial Instruments and Risk Management Fair Values

The fair values of cash and equivalents, receivables, trade payables and long-term debt approximate their fair values because of their nature and relatively short maturity dates or durations. The long-term debt is valued using a discounted cash flow model taking into consideration the current market interest rate of interest with similar term to maturity and the Company's current credit quality. As at December 31, 2021, the fair value of the long-term debt is \$749,268 (December 31, 2020 - \$696,503).

(a) Financial Risk Management

The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework. The Company considers the fluctuations of financial markets and seeks to minimize potential adverse effects on financial performance.

(b) Financial Instrument Risk Exposure

The Company is exposed in varying degrees to a variety of financial instrument related risks. The Board of Directors approves and monitors the risk management process.

Credit Risk

Credit risk is the risk of a financial loss to the Company if a counterparty to a financial instrument fails to meet its contractual obligation. The Company's exposure to credit risk includes cash and receivables. The Company reduces its credit risk by maintaining its bank accounts at large international financial institutions. The receivables consist primarily of tax receivables due from federal government agencies. The maximum exposure to credit risk is equal to the fair value or carrying value of the financial assets.

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its obligations as they become due. The Company's ability to continue as a going concern is dependent on management's ability to raise required funding through future equity issuances. The Company manages its liquidity risk by forecasting cash flows from operations and anticipating any investing and financing activities. Management and the Board of Directors are actively involved in the review, planning and approval of significant expenditures and commitments.

Market Risk

Market risk is the risk of loss that may arise from changes in market factors such as interest rates, foreign exchange rates, and commodity and equity prices. Such fluctuations may be significant, but the Company is not currently subject to any such risks in a material way.

(a) Interest rate risk

The Company has cash balances and no interest-bearing debt. The Company's current policy is to invest excess cash in investment-grade short-term deposit certificates issued by its banking institutions. The Company periodically monitors the investments it makes and is satisfied with the credit ratings of its banks.

(b) Foreign currency risk

The Company is not exposed to any material foreign currency risk on fluctuations in exchange rates.

(c) Price risk

The Company is exposed to price risk with respect to equity prices. Equity price risk is defined as the potential adverse impact on the Company's earnings due to movements in individual equity prices or general movements in the level of the stock market. The Company closely monitors

individual equity movements, and the stock market to determine the appropriate course of action to be taken by the Company.

Changes in IFRS Accounting Policies and Future Accounting Pronouncements

The following accounting standards have been issued but not yet adopted by the Company at December 31, 2021:

Amendments to IAS 1 in January 2020, IAS issued Classification of Liabilities as “Current” or “Non-current”.

The narrow scope amendments affect only the presentation of liabilities in the statement of financial position and not the amount or timing of its recognition. The amendments clarify that the classification of liabilities as current or non-current should be based on rights that are in existence at the end of the reporting period and align the wording in all affected paragraphs to refer to the right to defer settlement by at least 12 months. That classification is unaffected by the likelihood that an entity will exercise its deferral right. The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and are to be applied retrospectively. The Company is still assessing the impact of adopting these amendments on its consolidated financial statements.

Amendments to IAS 8 In February 2021, IASB issued Definition of Accounting Estimates.

The amendment replaces the definition of a change in accounting estimates with a definition of accounting estimates. Under the new definition, accounting estimates are “monetary amounts in financial statements that are subject to measurement uncertainty.” The amendment provides clarification to help entities to distinguish between accounting policies and accounting estimates. The amendments are effective for annual reporting periods beginning on or after January 1, 2023. The Company is still assessing the impact of adopting these amendments on its consolidated financial statements.

Amendments to IFRS 9

As part of its 2018-2020 annual improvements to IFRS standards process, the IASB issued an amendment to IFRS 9. The amendment clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other’s behalf. An entity applies the amendment to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment. The amendment is effective for annual reporting periods beginning on or after January 1, 2022 with earlier adoption permitted. The adoption of this amendment will not have a material impact on the consolidated financial statements.

Contingencies

The Company is not aware of any contingencies or pending legal proceedings as of the date of this MD&A.

Additional share information

As at December 31, 2021 the Company had outstanding:

- (i) 47,784,237 common shares;
- (ii) 3,240,304 warrants convertible into common shares; and
- (iii) 3,725,000 stock options convertible into common shares;

Risks and Uncertainties

The Company is subject to all of the business risks and uncertainties associated with any early-stage enterprise, including under-capitalization, cash shortages, limitations with respect to personnel, financial and other resources, and lack of revenues. Its main technologies have yet to reach commercialization stage. Certain factors, including but not limited to the ones described in its AIF, could materially affect the Company's financial condition and/or future operating results, and could cause actual events to differ materially from those described in forward-looking statements made by or relating to the Company.

Please refer to the discussion of forward-looking statements and information under the heading "Forward-Looking Statements" located at the beginning of the Company's AIF filed on SEDAR under the Company's issuer profile, as well as the discussion of risks and uncertainties set out under the heading "Risk Factors", located within the Company's AIF filed on SEDAR. The reader should carefully consider these risks as well as the information disclosed in the Company's audited annual financial statements, and other publicly filed disclosure regarding the Company, available on SEDAR (www.sedar.com) under the MustGrow's issuer profile.

COVID-19 Pandemic

The outbreak of COVID-19 has resulted in governments worldwide enacting emergency measures to combat the spread of the virus. These measures, which include the implementation of travel bans, self-imposed quarantine periods and social distancing, have caused material disruption to businesses globally resulting in an economic slowdown. The duration and impact of the COVID-19 outbreak is not known at this time, nor is the efficacy of the government and central bank monetary and fiscal interventions designed to stabilize economic conditions. As a result, it is not possible to reliably estimate the length and severity of these developments or the impact on the financial position and financial results of the Company in future periods.

Disclaimer

The information provided in this document is not intended to be a comprehensive review of all matters concerning the Company. It should be read in conjunction with all other disclosure documents provided by the Company, which can be accessed at www.sedar.com. No securities commission or regulatory authority has reviewed the accuracy or adequacy of the information presented herein.

Cautionary Statement on Forward Looking Information

Certain statements contained in this document constitute "forward-looking statements". Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance, or achievements of the Company to be materially different from any future results, performance, or achievements expressly stated or implied.