# MUSTGROW BIOLOGICS CORP.

## Management's Discussion and Analysis

### For the Year Ended December 31, 2020

**General**

This management discussion and analysis of financial position and results of operations ("**MD&A**") is prepared as at April 28, 2021 and should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2020 and related notes of MustGrow Biologics Corp. (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 share 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 Columbia S.A.S. to pursue market opportunities in South America.

The Company is now 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. MustGrow has designed and owns a United States EPA-approved biopesticide that uses the mustard seed's natural defense mechanism to protect plants from soil borne microbial diseases and insect pests. Approximately 110 independent tests have been completed, validating MustGrow's safe and effective technology. This technology, in granule format, is EPA-approved across all key U.S. states as a biopesticide and is designated by Health Canada's PMRA (Pest Management Regulatory Agency) as biopesticide. MustGrow has now concentrated a new liquid format to be applied through injection, standard drip or spray equipment, improving 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 synthetic chemicals used in high value crops. The Company's technology pipeline is presented below and describes, for each product, the stage of development and the steps to reach regulatory approval, which will facilitate commercial sales.

<u>Technology Pipeline</u>

| PRODUCT | TARGET | ESTIMATED MARKET SIZE / LOSS | PROOF OF CONCEPT<br>Laboratory | EARLY DEVELOPMENT<br>Greenhouse | ADVANCED DEVELOPMENT<br>Field Trials | REGISTRATION<br>Pre-Launch |
|---|---|---|---|---|---|---|
| **Preplant Soil Biofumigant** | Soil-borne diseases and pests | | | | | |
| **Fruits & Veg, Turf & Ornamental, Tobacco, Potatoes** | Fusarium, Botrytis, Verticillium, Rhizoctonia, Pythium, Phytophthora, Sclerotinia, Nematodes, etc. | **US$1.3 Billion** Estimated Global Market Size in Fruit & Veg | | | | *TerraMG*<br>*US-EPA registration in process* |
| **Bananas** | Fusarium wilt TR4 | **US$18 Billion** Estimated Global Loss | | | | |
| **Canola** | Clubroot Disease (*Plasmodiophora brassicae*) | **C$500 Million** Estimated Economic Loss in Canada | | | | |
| **Pulse Crops: Peas, Lentils, Legumes, etc.** | Aphanomyces | **C$100 Million** Estimated Economic Loss in Canada | | | | |
| **Bioherbicide** | High value herbicide markets | **US$35 Billion** Estimated Global Market Size | | | | |
| **Postharvest Food Preservation** | Storage biopesticide and food preservation | | | | | |
| **Potato & Vegetable Sprout Inhibitor*** | Sprouting, diseases and pests | **US$100 Million** Estimated Global Market | | | | |
| **Biopesticide for Bulk Grain*** | Mycotoxins and pests | **US$15 Billion** Estimated Global Loss | | | | |
| **Biopesticide for Shipping Containers*** | Diseases and pests | **US$2 Billion** Estimated Global Market Size | | | | |
| **Biopesticide for 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. MustGrow is looking forward to testing its natural AITC technologies.*

**Financing Activities**

On March 20, 2018, the Company completed an issuance of 6,720,000 units (the "Unit Offering") consisting of one common share and one warrant to purchase one common share at $0.35 per share (the "Unit"). Issue price was $0.25 per Unit. Proceeds net of issuance costs were $1,463,530.

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 warrants and stock options.

**Selected Annual Information**

| | 2020<br>$ | 2019<br>$ | 2018<br>$ |
|---|---|---|---|
| Revenue | 0 | 0 | 2,000 |
| Net loss | 3,309,926 | 1,518,038 | 1,893,377 |
| Net loss per share, basic and diluted | 0.09 | 0.06 | 0.09 |
| Assets | 3,372,050 | 4,092,666 | 534,278 |
| Non-current financial liabilities | 696,503 | 382,271 | 709,950 |
| Cash dividends per share | 0 | 0 | 0 |

**Results of Operations**

For the years ended December 31, 2020, 2019 and 2018, the Company incurred losses of \$3,309,926, \$1,518,038 and \$1,893,377, 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 progressively increase expense levels over the 2018-2020 period.

| | Years ended December 31, | | |
|---|---|---|---|
| | 2020 | 2019 | 2018 |
| Expenses | | | |
| Research and development | \$ 149,248 | \$ 82,999 | \$ 13,542 |
| Regulatory | 46,436 | 23,259 | 10,210 |
| Corporate communications | 1,041,917 | 254,395 | 238,984 |
| Listing fees | - | - | 885,983 |
| Transfer agent and exchange fees | 122,789 | 94,957 | 64,306 |
| Office and administration | 675,393 | 503,616 | 358,170 |
| Marketing and promotion | 263,549 | 36,471 | 9,492 |
| Patent expenses | 187,678 | 74,187 | 44,738 |
| Professional fees | 105,335 | 277,493 | 116,844 |
| Stock-based compensation | 776,903 | 124,786 | 112,868 |
| Total Expenses | \$3,369,248 | \$1,472,163 | \$1,855,137 |

Research and development expenses include costs related to identification and extraction of bio-pesticide and bio-herbicide compounds from mustard seed, formulation of these compounds into biologic products and testing of these products on various microbial diseases, insect pests and weeds in laboratory, greenhouse and field settings. Research and development expenses increased over the three-year period as the Company increased process trial activity on the products and crops identified in the product pipeline above.

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 new products. This activity increased in 2020 as Terra-MG was presented to the US EPA.

Listing fees incurred in 2018 were a one-time non-cash expense related to the Amalgamation.

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 products and the target markets.

Corporate communications expense 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; and
- Increased communications with industry and the research and development community driven by the increase in the Company's R&D activity.

Transfer agent and exchange fees increased in 2019 over 2018 as a result of the Company's listing on the Canadian Securities Exchange in July 2019. Such expenses increased again in 2020 as a result of the Company's listings on the OTC and Frankfurt stock exchange.

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

| | Years ended December 31, | | |
|---|---|---|---|
| | 2020 | 2019 | 2018 |
| Office and administration | | | |
| Management compensation | $577,991 | $ 403,005 | $ 298,124 |
| Rent | 46,436 | 23,259 | 10,210 |
| Office expenses | 50,966 | 34,518 | 40,981 |
| | $675,393 | $ 460,782 | $ 349,315 |

Management compensation increased in 2019 as the Company added senior staff positions. Rent increased in 2020 as a result of the lease of new office space.

Marketing and promotion expenses include trade shows, travel and consulting fees paid to market development representatives. While travel decreased in 2020 due to the COVID-19 pandemic, consulting fees and promotional expenses increased as the Company expanded its presence worldwide.

Patent expenses increased in 2019 and more significantly in 2020 due to new patent filings emerging from the Company's increased research and development activity.

Professional fees include legal, audit and tax services. Professional fees increased in 2019 due to the preparation of a non-offering prospectus for the purpose of providing full public disclosure pursuant to the Company's application to list its common shares on the Canadian Securities Exchange. The Company's common shares commenced trading on the CSE on July 10, 2019.

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, 2020 and 2019 was $2,578,823 and $1,352,513, respectively. The increase in 2020 was primarily due to expenses related to increased product development, business development and investor relations activities.

Cash provided by financing activities for the years ended December 31, 2020 and 2019 was $1,862,807 and $4,873,997, respectively. In 2020, the Company received 1,826,807 on exercise of warrants and options. In 2019, the Company received $1,151,532 related to the March 2019 Private Placement, $68,908 related to exercise of warrants and $3,653,557 related to the 2019 Unit Offering.

Total assets decreased to $3,372,050 at December 31, 2020 from $4,092,666 at December 31, 2019 due to cash used to fund increased operations, offset by cash realized on exercise of warrants.

Total liabilities decreased to $1,047,075 at December 31, 2020 from $1,061,475 at December 31, 2019 due to the gain on extinguishment realized on the Saskatchewan Minister of Agriculture loan, offset by accretion in the value of this 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<br>$ | Income (loss) for the period<br>$ | Income (loss) per Share (Basic & Diluted)<br>$ |
|---|---|---|---|
| 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) |
| December 31, 2019 | 0 | (485,972) | (0.02) |
| September 30, 2019 | 0 | (409,891) | (0.02) |
| June 30, 2019 | 0 | (337,345) | (0.01) |
| March 31, 2019 | 0 | (284,830) | (0.01) |

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 product development activity. 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, 2020 was $3,021,478 including cash of $3,312,797. 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, 2020, the Company incurred consulting fees and office rent of $595,991 (2019 – $424,505) to companies controlled by directors and officers of the Company.

During the year ended December 31, 2020, stock-based compensation related to stock options issued to directors and officers of the Company totaled $240,526 (2019 – $120,572).

As at December 31, 2020 there was $38,939 accrued and payable to directors and officers of the Company (2019 – $9,310).

## 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, 2020, the fair value of the long-term debt is $696,503 (December 31, 2019 - $755,825).

### (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.

**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, 2020 the Company had outstanding:

(i) 40,492,849 common shares;

(ii) 6,358,411 warrants convertible into common shares;

(iii) 3,675,000 stock options convertible into common shares; and

**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.