Management's Discussion and Analysis

For the Year Ended March 31, 2020

DATE OF REPORT: May 14, 2020

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following management's discussion and analysis ("MD&A") has been prepared as of May 14, 2020 and should be read in conjunction with the consolidated audited financial statements of Medicenna Therapeutics Corp. ("Medicenna", the "Company", "we", "our", "us" and similar expressions). The audited consolidated financial statements and related notes of Medicenna were prepared in accordance with International Financial Reporting Standards ("IFRS") and all dollar amounts are expressed in Canadian dollars unless otherwise noted.

FORWARD-LOOKING STATEMENTS

This MD&A contains forward-looking statements within the meaning of applicable securities laws. These statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. All statements contained herein that are not clearly historical in nature are forward-looking, and the words such as "plan", "expect", "is expected", "budget", "scheduled", "estimate", "forecast", "contemplate", "intend", "anticipate", or "believe" or variations (including negative variations) of such words and phrases, or statements that certain actions, events or results "may", "could", "would", "might", "shall" or "will" be taken, occur or be achieved and similar expressions are generally intended to identify forward-looking statements. Forward-looking statements in this MD&A include, but are not limited to, statements with respect to the Company's:

- requirements for, and the ability to obtain, future funding on favourable terms or at all;
- business strategy;
- expected future loss and accumulated deficit levels;
- projected financial position and estimated cash burn rate;
- expectations about the timing of achieving milestones and the cost of the Company's development programs;
- observations and expectations regarding the effectiveness of MDNA55 and the potential benefits to patients;
- expectations about the Company's products' safety and efficacy;
- expectations regarding the Company's ability to arrange for the manufacturing of the Company's products and technologies;
- expectations regarding the progress, and the successful and timely completion, of the various stages of the regulatory approval process;
- expectations regarding the filing and approval of various submissions by regulatory agencies regarding the conduct of new clinical trials;
- ability to initiate, progress, and successful and timely completion, of various preclinical and manufacturing activities associated with future clinical trials;
- ability to secure strategic partnerships with larger pharmaceutical and biotechnology companies;
- strategy to acquire and develop new products and technologies and to enhance the safety and efficacy of existing products and technologies;
- plans to market, sell and distribute the Company's products and technologies;
- expectations regarding the acceptance of the Company's products and technologies by the market;
- ability to retain and access appropriate staff, management, and expert advisers;
- expectations with respect to existing and future corporate alliances and licensing transactions with third parties, and the receipt and timing of any payments to be made by the Company or to the Company in respect of such arrangements; and
- strategy with respect to the protection of the Company's intellectual property.

all as further and more fully described under the section of this MD&A titled "*Risk Factors*". Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended.

The forward-looking information in this MD&A does not include a full assessment or reflection of the unprecedented impacts of the COVID-19 pandemic occurring in the first quarter of 2020 and the ongoing and developing resulting indirect global and regional economic impacts. The Company is currently experiencing uncertainty related to the rapidly developing COVID-19 situation. It is anticipated that the spread of COVID-19 and global measures to contain it, will have an impact on the Company, however it is challenging to quantify the potential magnitude of such impact at this time. The Company is regularly assessing the situation and remains in contact with its partners, clinical sites investigators, contract research organizations, contract development and manufacturing organizations and suppliers to assess any impacts and risks.

Although the forward-looking statements contained in this MD&A are based upon what the Company's management believes to be reasonable assumptions, the Company cannot assure readers that actual results will be consistent with these forward-looking statements.

Any forward-looking statements represent the Company's estimates only as of the date of this MD&A and should not be relied upon as representing the Company's estimates as of any subsequent date. The Company undertakes no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events, except as may be required by securities laws.

All references in this MD&A to "the Company", "Medicenna", "we", "us", or "our" refer to Medicenna Therapeutics Corp. and the subsidiaries through which it conducts its business, unless otherwise indicated.

COMPANY OVERVIEW

Medicenna Therapeutics Corp. is the company resulting from a "three-cornered" amalgamation involving A2 Acquisition Corp ("A2"), 1102209 B.C. Ltd., a wholly owned subsidiary of A2 and Medicenna Therapeutics Inc. ("MTI"), a privately held clinical stage biotechnology company. A2 was formed by articles of incorporation under the *Business Corporations Act* (Alberta) ("ABCA") on February 2, 2015, and following its initial public offering, was a "capital pool company" listed on the Toronto Stock Exchange Venture ("TSXV"). As a capital pool company, A2 had no assets other than cash and did not carry on any operations other than identifying and evaluating opportunities for the acquisition of an interest in assets or businesses for the completion of a qualifying transaction.

In February 2015, the Company was awarded a grant by the Cancer Prevention Research Institute of Texas ("CPRIT") whereby the Company is eligible to receive up to US$14,100,000 on eligible expenditures over a three year-period (later extended to a five-year period) related to the development of the Company's Phase 2b clinical program for MDNA55.

On March 1, 2017, A2 completed its qualifying transaction in accordance with the policies of the TSXV by way of a reverse takeover of A2 by the shareholders of MTI (the "Qualifying Transaction"). In connection with the Qualifying Transaction, A2 changed its name to Medicenna Therapeutics Corp. and completed a consolidation of its share capital on the basis of one post-consolidation common share for every 14 pre-consolidation common shares.

On August 2, 2017, Medicenna graduated from the TSXV to the Toronto Stock Exchange ("TSX"). On November 13, 2017, Medicenna continued under the *Canada Business Corporations Act*.

Medicenna has three wholly owned subsidiaries: MTI, Medicenna Biopharma Inc. (Delaware) and Medicenna Biopharma Inc. (British Columbia).

Medicenna is a clinical stage immuno-oncology company developing novel, highly selective versions of interleukin-2 ("IL-2"), interleukin-4 ("IL-4") and interleukin-13 ("IL-13") tunable cytokines, called "Superkines". These Superkines can be developed either on their own as short or long-acting therapeutics or fused with cell killing proteins in order to generate Empowered Cytokines™ ("ECs") that precisely deliver

potent toxins to the cancer cells without harming adjacent healthy cells. Medicenna's mission is to become the leader in the development and commercialization of targeted ECs and Superkines for the treatment of a broad range of cancers. The Company seeks to achieve its goals by drawing on its expertise, and that of world-class collaborators, in order to develop a unique set of therapeutic Superkines. Compared to naturally occurring cytokines – that bind to multiple receptor types on many cell types – Superkines are engineered with unique specificity toward defined target cell subsets to enable precise activation or inhibition of relevant immune cells in order to improve therapeutic efficacy and safety. Superkines can also be fused with other types of proteins such as antibodies to generate novel "immunocytokines" or combined with other treatment modalities such as checkpoint inhibitors, chimeric antigen receptor T cells ("CAR-Ts") or oncolytic viruses to stimulate tumor-killing immune cells or overcome the immunosuppressive tumor microenvironment ("TME").

Medicenna has completed enrolment in a Phase 2b clinical trial of MDNA55, Medicenna's lead EC, for the treatment of recurrent glioblastoma ("rGBM"), the most common and uniformly fatal form of brain cancer. MDNA55 is a fusion of a circularly permuted version of IL-4, fused to a potent fragment of the bacterial toxin, Pseudomonas exotoxin ("PE"), that is designed to preferentially target tumor cells that over-express the interleukin-4 receptor ("IL4R"). MDNA55 has now been studied in 5 clinical trials in 132 patients, including 112 patients with rGBM, in which it has shown indications of superior efficacy when compared to the current standard of care. MDNA55 has secured Orphan Drug Status from the United States Food and Drug Administration ("FDA") and the European Medicines Agency ("EMA") as well as Fast Track Designation from the FDA for the treatment of rGBM and other types of high grade glioma. Medicenna announced on April 30, 2019 that patient enrollment was complete in the Phase 2b clinical trial of MDNA55 after treating 46 patients with rGBM. Medicenna announced preliminary top line data from the study on June 18, 2019 and additional survival data in December 2019 and January 2020. Medicenna plans to have an End of Phase 2 ("EOP2") meeting with the FDA in 2020.

Complementing Medicenna's lead clinical asset (MDNA55), the Company has built a deep pipeline of promising preclinical Superkine candidates such as IL-2 agonists (MDNA109), IL-2 antagonists (MDNA209), dual IL-4/IL-13 antagonists (MDNA413) and IL-13 Superkine (MDNA132) all in-licensed from Leland Stanford Junior University ("Stanford"). The most advanced of these programs is the MDNA109 platform (comprising of MDNA11 and MDNA19), which is in preclinical development and is the only engineered IL-2 Superkine designed to specifically target CD122 (IL-2Rβ) with high affinity without CD25 dependency. Both MDNA11 and MDNA19, which unlike native IL-2 (Proleukin), have superior pharmacokinetic properties, lack CD25 binding in order to improve safety, potently stimulate effector T cells, reverse natural killer ("NK") cell anergy and act with exceptional synergy when combined with checkpoint inhibitors. Medicenna is working towards initiating a Phase 1 clinical study with the MDNA109 platform in mid-2021.

ACHIEVEMENTS & HIGHLIGHTS

The following are the achievements and highlights for the year ending March 31, 2020 through to the date hereof:

- On April 30, 2019, we announced completion of enrolment in the MDNA55 Phase 2b clinical study for the treatment of rGBM.
- On May 1, 2019, Medicenna received US$757,940 from CPRIT for reimbursement of past expenses.
- On June 3, 2019 a poster entitled "MDNA55: A Locally Administered IL4 Guided Toxin as a Targeted Treatment for Recurrent Glioblastoma" was presented at the 55th Annual Meeting of the American Society of Clinical Oncology ("ASCO") held in Chicago, IL. The presentation by Dr. Dina Randazzo, of Duke University School of Medicine and a Principal Investigator, focused on the development of a new biomarker test for the IL4R that may enable better selection and superior treatment outcomes for patients with rGBM.

- On June 18, 2019, Dr. Fahar Merchant presented results from the Phase 2b MDNA55 clinical trial for rGBM at the Inaugural Immuno-Oncology Pharma Congress in Boston, MA. The presentation highlighted disease control in up to 83% of the patients according to Immunotherapy Response Assessment in Neuro-Oncology ("iRANO") criteria which measure tumor response relative to the largest tumor size post-treatment (nadir). In addition, safety data from the Phase 2b clinical trial show a similar safety profile to previous MDNA55 trials, with no systemic toxicities, no clinically significant laboratory abnormalities and no drug-related deaths.

- On June 20, 2019, Medicenna presented a poster entitled "Engineering a long-acting CD122 biased IL-2 superkine displaying potent anti-tumoral responses". The presentation by Dr. Moutih Rafei, Associate Professor, Department of Pharmacology and Physiology, Université de Montréal, highlighted that MDNA109-LA (a precursor of MDNA19) when combined with checkpoint inhibitors (a) demonstrated durable tumor control with strong memory response; (b) enhancing activation of naive CD8 T cells and NK cells (responsible for attacking tumor cells) and (c) attained long term tumor control with fewer treatment cycles and a less frequent dosing regimen.

- On June 26, 2019, we reported preclinical data on MDNA55 which showed promising results in ovarian cancer models.

- On July 9, 2019 Medicenna announced that it had received US$1,915,372 in non-dilutive funding from CPRIT.

- On July 31, 2019, we announced the selection of MDNA19 as our second immuno-oncology clinical candidate for the treatment of cancer. MDNA19 is a best-in-class long-acting IL-2 developed from Medicenna's Superkine platform that has shown unique ability to selectively stimulate cancer killing immune cells without the limitations seen with other long-acting IL-2 programs.

- On September 24, 2019, we announced the appointment of Ms. Karen Dawes to our Board of Directors. Ms. Dawes is an experienced and highly regarded leader in the life sciences industry with extensive strategic expertise and considerable commercial background.

- On September 25, 2019, we presented updated efficacy results from the Phase 2b clinical trial (MDNA55-05) in the first 33 rGBM patients enrolled in the study. MDNA55 is a potent immunotherapy agent as it potently targets the IL4R which is overexpressed in glioblastoma ("GBM") as well as non-cancerous cells that make up the brain tumour microenvironment ("TME"). The data imply that targeting the TME, particularly in GBM, is critical where almost half of the tumor mass is made up of the TME, a cancer swamp that hides the tumor from the immune system. The TME is emerging as one of the key reasons why glioblastoma is extremely aggressive, and continues to be one of the most difficult cancers to treat. Since MDNA55 can simultaneously kill both the tumor cells and the TME by targeting the IL4R, the results to date indicate that MDNA55 could emerge as a new treatment for this deadly disease.

- On September 26, 2019 Medicenna announced the publication of a peer-reviewed article in the August 2019 edition of *Nature Communications* providing independent third-party validation of Medicenna's IL-2 Superkine platform, MDNA109.

- On September 30, 2019, we announced the presentation of new preclinical data from our IL-2 Superkine program to support the differentiating characteristics of long-acting MDNA109 variants and their potency *in vitro* and *in vivo* from other long-acting IL-2 programs.

- On October 17, 2019, Medicenna completed a public offering raising total gross proceeds of $6,900,000. The Company issued 5,307,693 units at a price of $1.30, each such unit consisting of one common share and one-half common share purchase warrant. Each such whole warrant is exercisable at a price of $1.75 until October 17, 2022.

- On November 21, 2019, we announced new positive results on drug distribution from the recently completed Phase 2b clinical trial of MDNA55. Implementing new advances in convection enhanced delivery ("CED"), that were previously not available allows us to bypass the blood-brain barrier and deliver high concentrations of MDNA55 directly to the tumor and the at-risk area immediately surrounding it, without exposure to the rest of the body.

- On November 25, 2019, Medicenna announced the presentation of updated clinical results from the Phase 2b trial of MDNA55, by Dr. John Sampson at the 24th Society for Neuro-Oncology ("SNO") annual meeting. Dr. Sampson discussed updated efficacy results from the Phase 2b clinical trial of MDNA55 in rGBM patients using the IL4R as an immunotherapy target.

- On December 12, 2019, we announced a presentation by Dr. Fahar Merchant at the Inaugural Glioblastoma Drug Development Annual Summit. The presentation reported subgroup analysis from the first 40 patients treated with MDNA55 in a Phase 2b clinical trial for patients with rGBM.

- On January 8, 2020 we announced receipt of $1.3 million in proceeds from the exercise of previously issued warrants.

- On January 13, 2020, Medicenna announced results from a retrospective study of subjects with rGBM who matched eligibility requirements of subjects enrolled in the MDNA55-05 clinical trial (Synthetic Control Arm, "SCA") receiving standard therapies and compared their survival versus subjects treated with MDNA55, in the Phase 2b rGBM clinical. The SCA comprised 81 rGBM patients receiving standard therapies including Avastin®, lomustine and temozolomide ("TMZ") with similar baseline features as patients treated in the MDNA55 trial such as age, tumor size, ineligibility for surgery, lack of isocitrate dehydrogenase ("IDH") mutations, IL4R expression and other parameters known to affect survival. When comparing IL4R High groups across the two populations, a 150% survival advantage is seen in patients who received MDNA55.

- On March 17, 2020, the Company closed a public offering of 11,290,323 common shares at a price of $3.10 per share for gross proceeds of approximately $35 million (the "**2020 Public Offering**").

- On March 25, 2020, Medicenna presented preclinical data, including non-human primate ("NHP") data from its IL-2 Superkine program, highlighting data from the long-acting variant MDNA19, engineered to have enhanced binding to CD122 without binding to CD25. This allows MDNA19 to specifically activate naive CD8 T cells and NK cells with minimal stimulation of regulatory T cells ("Tregs"), thereby circumventing toxicity and demonstrating potential for best-in-class features which was supported by the NHP data.

- In March 2020, the World Health Organization declared the COVID-19 outbreak a global pandemic. We continue to monitor the COVID-19 situation, which is rapidly developing. The Company operates in a virtual manner and current operations have not been impacted in any material way by the health crisis. However, the pandemic does have an impact on our third party vendors which could result in the interruption of operations and result in development delays including the timing of the EOP2 clinical study meeting for MDNA55 with the FDA, the ongoing preclinical and future clinical activities related to MDNA19 or MDNA11. We have required all of our employees to work from home and are asking business partners to engage us by telephone or video conference where possible, eliminating business travel and requiring self-isolation for employees travelling outside of Canada. As the COVID-19 health crisis further develops, we will continue to rely on guidance and recommendations from local health authorities, Health Canada and the Centers for Disease Control and Prevention to update our policies.

- Subsequent to the year end, On April 15, 2020, Medicenna announced the closing of the full over-allotment option to purchase an additional 1,693,548 common shares of Medicenna at a price of $3.10 per share, in connection with the 2020 Public Offering.

- Subsequent to the year end, on May 4, 2020, we announced that Medicenna will be presenting two abstracts at the American Society of Clinical Oncology Virtual Scientific Program to be held from May 29 to May 31, 2020. The first abstract on our MDNA55 rGBM program has been selected for a poster discussion and will provide new data on tumor response as well as survival outcomes compared to a matched SCA. The second abstract will present preclinical data including non-human primate data for MDNA11, one of Medicenna's MDNA109 platform candidates.

FINANCING UPDATE

Year ended March 31, 2020

On October 17, 2019, Medicenna completed a public offering raising total gross proceeds of $6,900,000. The Company issued 5,307,693 units at $1.30, consisting of one common share and one-half common share purchase warrant. Each whole warrant is exercisable at $1.75 until October 17, 2022. The Company paid commission to the agents totaling $455,175 and issued 350,134 warrants to the agents exercisable into one common share of the Company at an exercise price of $1.30 for a period of twenty-four months.

On March 17, 2020, Medicenna completed the 2020 Public Offering of 11,290,323 shares for gross proceeds of $35,000,001. In the context of the 2020 Public Offering, Medicenna issued 790,323 broker warrants as partial consideration for the services provided by the agents in connection with the 2020 Public Offering. Each broker warrant is exercisable for one common share at a price of $3.10 per common share until March 17, 2022. The total costs associated with the 2020 Public Offering were $3,365,487, including an amount of $456,016 which represents the estimated fair value of the broker warrants.

During the year ended March 31, 2020, 1,623,675 warrants were exercised for proceeds of $2,372,822, the details of which are described below:

Number of Warrants	Exercise Price	Proceeds	Expiry Date
	$	$	
695,544	1.75	1,217,202	October 17, 2022
138,631	1.30	180,220	October 17, 2021
35,000	2.00	70,000	April 5, 2021
222,500	1.20	267,000	December 21, 2020
532,000	1.20	638,400	December 21, 2023
1,623,675		**2,372,822**	

Year ended March 31, 2019

On December 21, 2018, the Company closed a short-form prospectus offering of 4,000,000 units for gross proceeds of $4,000,000. Each unit consisted of one common share of the Company and one-half common share purchase warrant of the Company. Each such whole warrant entitles the holder to purchase one common share, at an exercise price of $1.20 per common share until December 21, 2023. In the context of this offering, Medicenna issued 4,000,000 common shares and 2,000,000 warrants, as well as 280,000 broker warrants as partial consideration for the services provided by the agents in connection with this offering. Each such broker warrant is exercisable for one common share at a price of $1.20 per common share until December 21, 2020. The total costs associated with the transaction were $643,686, including an amount of $91,000 which represents the estimated fair value of the broker warrants issued.

There were no warrants exercised in the year ended March 31, 2019.

Subsequent Events

Subsequent to the year end, on April 15, 2020, Medicenna announced the closing of the full over-allotment option to purchase an additional 1,693,548 common shares of Medicenna at a price of $3.10 per share, in

connection with the 2020 Public Offering. As a result of the exercise of this over-allotment option, Medicenna received additional gross proceeds of $5,249,999, which will be used to fund further development of Medicenna's MDNA109 platform candidate (MDNA19 or MDNA11) including preclinical activities, manufacturing and Phase 1/2a clinical trials as well as for general corporate purposes and working capital.

RESEARCH & DEVELOPMENT UPDATE

MDNA55

Excluding the recently completed Phase 2b clinical study, MDNA55 has been studied in previous clinical trials under two Investigational New Drug Applications ("IND") for the treatment of rGBM, high grade glioma and non-CNS solid tumors. In these earlier studies, MDNA55 showed promising clinical results from 72 patients including 66 adult patients with rGBM following a single intra-tumoral infusion. It has secured Orphan Drug Status from the FDA and the EMA as well as Fast Track Designation from the FDA.

Since the above mentioned clinical trials, there have been many improvements to the CED technology, a drug delivery technique for localized administration of MDNA55 into brain tumors. This includes use of newly developed techniques for high precision placement of catheters into the tumor bed as well as novel stepped design catheters that prevent backflow and leakage of MDNA55 during treatment. Furthermore, by co-infusion of a magnetic resonance imaging ("MRI") contrast agent with MDNA55, drug distribution can be monitored in real time in order to achieve maximum coverage of the tumor bed and the tumor margins. Unlike previous clinical trials, data from the MDNA55 Phase 2b clinical trial show that each of these improvements facilitates more accurate targeting and superior distribution of MDNA55 to regions of active tumor growth as well as the margins around the tumor. Medicenna has obtained an exclusive license from the National Institutes of Health ("NIH") to patents covering CED and the use of a surrogate tracer for real-time monitoring of MDNA55 delivery and distribution.

Phase 2b Study Outline for Glioblastoma at First or Second Recurrence or Progression

The Phase 2b trial with MDNA55 using enhanced CED delivery is a multi-center, open-label, single-arm study in up to 52 patients (at least 46 intent-to-treat ("ITT") patients evaluable for survival and 35 patients evaluable for response), with first or second recurrence or progression of GBM after surgery or radiotherapy ± adjuvant therapy or other experimental therapies.

The primary endpoint of the study is median overall survival ("mOS") comparing an expected null survival rate of 8.0 months (based on historical control) with an alternative pursue rate of 11.5 months (1-sided alpha = 0.10 and 80% power for approximately 46 ITT or per protocol subjects). The secondary endpoint is objective response rate ("ORR") assessed by the modified Response Assessment in Neuro-Oncology ("mRANO")-based criteria incorporating advanced imaging modalities according to a null response rate of 6% with an alternative pursue rate of 18% (1-sided alpha = 0.10 and 80% power for at least 35 subjects evaluable for response). IL4R expression levels in tumor biopsies and their potential impact on patient outcomes following treatment with MDNA55, were retrospectively evaluated.

Phase 2b Study Update

In April 2017, we treated the first rGBM patient in the Phase 2b clinical trial of MDNA55 and enrolled patients at eight clinical sites across the United States and 1 site in Europe with enrolment in the study (46 ITT patients) completed in April 2019.

While the Company previously targeted completion of the Phase 2b by not later than Q4 2018, the protocol amendments announced in September 2017 and May 2018, and described below, resulted in slower than anticipated patient recruitment.

On September 28, 2017, we announced that based on encouraging drug distribution and safety data observed we implemented an amended protocol incorporating enhanced drug delivery procedure which was used for the treatment of the remaining patients. The amended protocol allowed higher doses and volumes of MDNA55 as well as an increase in the total expected study size – from 43 patients under the original protocol to up to 52 total planned patients. This protocol amendment was based on a planned safety analysis following a unanimous recommendation from MDNA55's Safety Review Committee. Of the up to 52 patients to be treated in the study we required at least 46 of those patients to be evaluable for survival and at least 35 subjects evaluable for response. We met our threshold enrolment requirements in April 2019 with 46 patients treated (ITT population) of which 44 patients met all the protocol eligibility requirements (per protocol population).

On October 10, 2017, clinical data were presented by Principal investigator John H. Sampson MD, PhD, (Robert H. and Gloria Wilkins Distinguished Professor and Chair of Neurosurgery at Duke University in Durham, NC) at the 2017 Congress of Neurological Surgeons (Boston, MA), demonstrating successful delivery of MDNA55 in rGBM patients and a reassuring safety profile. Furthermore, the data showed that a substantially higher proportion of the target tissue was being covered then in previous similar trials. In some cases, close to 100% of the tumor and the 1 cm margin around it (at risk for tumor spread) had been successfully covered.

Additional clinical data from the Phase 2b rGBM clinical trial of MDNA55 were presented at the 22nd Annual Meeting of the SNO held in San Francisco in November 2017. Dr. Krystof Bankiewicz, MD, PhD, Professor in Residence of Neurological Surgery at the University of California San Francisco, provided an update on drug distribution and safety data from the first 15 patients treated in the study. The oral and poster presentations at the SNO conference outlined that through a process of real-time image guided delivery together with the ability to monitor and adjust infusion parameters, drug delivery was dramatically improved with significant enhancement in target coverage. A previous CED study in rGBM, without the advances implemented by Medicenna, [ref: J Neurosurg. 2010 Aug;113(2):301-9], was able to achieve, on average, coverage of only 20% of the target volume. In contrast, in the current study, a comparable estimate for coverage of the tumor and a 1cm high-risk margin around it showed approximately 65% coverage with the figure rising to 75% for the tumor area alone, with some patients achieving near 100% coverage of the target volume.

It was reported on May 2, 2018 that half the patients in the study had been recruited and the data to date demonstrated solid safety results and early signals of efficacy based on the findings of the Safety Review and Clinical Advisory Committees, comprised of key opinion leaders and study investigators. Following the Safety Review, Medicenna amended the protocol at the recommendation of clinical advisors to further improve the chances for demonstrating increased therapeutic benefit for patients. The amendment allowed the implementation of optimal methodologies including more personalized dosing based on the tumor load, incorporation of advanced imaging modalities to measure treatment responses more reliably, use of sub-therapeutics dose of Avastin® in patients that could not tolerate steroid use to control edema and inflammation and allowing investigators to administer a second dose of MDNA55 where appropriate.

Review of some patients who had been withdrawn from the study, believing that their disease had progressed, found that the apparent increases in tumor volumes, seen on brain scans, were, in fact, due to tissue necrosis, inflammation and edema. This is a known effect of immunotherapeutic agents such as MDNA55, called pseudo-progression, which poses a challenge to patient retention, management and data interpretation. When evaluating images from such patients, using multi-modal imaging, Medicenna found evidence of biological activity of MDNA55 suggesting that these patients were benefiting from the treatment, and in multiple cases following withdrawal from the study, surgical resection showed significant tumor necrosis. This amendment allowed a biopsy and/or advanced multi-modal imaging to more accurately discriminate between necrosis/inflammation and true disease progression. These tools would encourage subjects to remain in the study, where appropriate, giving time for the pseudo-progression to resolve and increase the likelihood of clinical responses.

Following the amended protocol as announced on May 2, 2018 and after receiving the necessary regulatory and site approvals patient enrolment was resumed at higher doses provided that the pre-established maximum tolerated dose ("MTD") of 240μg was not to be exceeded.

The protocol amendments announced September 28, 2017 and May 2, 2018 resulted in increased timelines for completion of the MDNA55 Phase 2b clinical trial due to an increase in the original number of patients as well as a slowdown of patient recruitment while the necessary regulatory reviews and approvals were completed.

On October 22, 2018, the Company presented results and participated in a poster discussion session at the ESMO Congress held in Munich. Based on interim data from patients treated at low doses implemented during the first half of the Phase 2b study of MDNA55, the presentation highlighted the benefits of using of advanced imaging modalities in order to help tumor response evaluation and identify pseudo-progression in some patients which ultimately translates into tumor shrinkage, and potential treatment benefit.

On October 31, 2018, Medicenna provided an interim update from the ongoing Phase 2b clinical trial of MDNA55 for the treatment of rGBM. These results were superseded by data reported on February 7, 2019 as described below.

On February 7, 2019, Medicenna presented new clinical study results in a podium presentation entitled, "The IL4 Receptor as a Biomarker and Immunotherapeutic Target for Glioblastoma: Preliminary Evidence with MDNA55, a Locally Administered IL-4 Guided Toxin" by John H. Sampson, MD, PhD, Robert H. and Gloria Wilkins Distinguished Professor and Chair of Neurosurgery at Duke University during the 5th Annual Immuno-Oncology 360º Conference held in New York, NY. These results have subsequently be superseded by more complete data presented in late 2019 and January 2020.

On April 30, 2019, Medicenna announced that enrolment in the study was complete with 46 evaluable patients (ITT population) of which 44 patients were subsequently identified as meeting protocol eligibility requirements without major deviations (per protocol population).

On June 3, 2019, a poster entitled "MDNA55: A Locally Administered IL4 Guided Toxin as a Targeted Treatment for Recurrent Glioblastoma" was presented at the 55th Annual Meeting of the ASCO held in Chicago, IL. The presentation by Dr. Dina Randazzo of Duke University School of Medicine and a Principal Investigator, focused on the development of a new biomarker test for the IL4R that may enable better selection and superior treatment outcomes for patients with rGBM. These data were subsequently updated as described below.

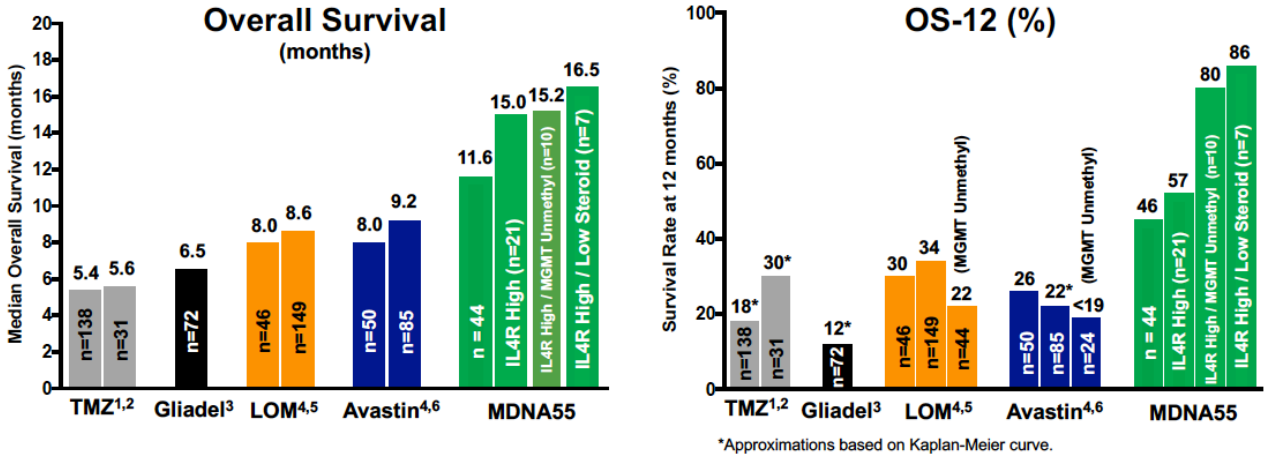
On June 18, 2019, Dr. Fahar Merchant presented results from the Phase 2b MDNA55 clinical trial which recently completed enrollment (n=46) at the Inaugural Immuno-Oncology Pharma Congress in Boston, MA. The presentation highlighted disease control in up to 83% of the patients according to iRANO criteria, which measure tumor response relative to the largest tumor size post-treatment (nadir). Use of advanced imaging techniques (such as perfusion and diffusion MRI) was able to show underlying tissue response amidst inflammation and edema in some subjects. In addition, safety data from the Phase 2b clinical trial show a similar safety profile to previous MDNA55 trials, with no systemic toxicities, no clinically significant laboratory abnormalities and no drug-related deaths.

On September 25, 2019, the Company presented updated efficacy results from the Phase 2b clinical trial MDNA55-05 in rGBM patients using the IL4R as an immunotherapy target, as it is overexpressed in glioblastoma as well as in cells that make up the brain tumor microenvironment ("TME"). The data imply that targeting the TME, particularly in GBM, is critical where almost half of the tumor mass consists of non-cancerous cells that make up the TME, a cancer swamp that hides the tumor from the immune system. The TME is emerging as one of the key reasons why glioblastoma is extremely aggressive, and continues to be one of the most difficult cancers to treat. Since MDNA55 can simultaneously kill both the tumor cells and the TME by targeting the IL4R, the results to date continue to show that MDNA55 is likely to emerge as a

new treatment for this deadly disease. These data were subsequently updated in November and December 2019 and January 2020.

On November 25, 2019, Medicenna announced the presentation of updated clinical results presented by Dr. John Sampson from our Phase 2b trial of MDNA55 at the 24th SNO annual meeting. The presentation highlighted that with a single treatment with MDNA55, the mOS in IL4R High subjects (n=21) was 15 months showing a survival advantage of up to nine months when compared to approved therapies (mOS of 5.4 to 9.2 months with temozolomide, Avastin® and lomustine), among the 38 evaluable subjects, irrespective of IL4R expression, 82% of the subjects experienced tumor shrinkage or stabilization from nadir. The mOS of patients showing tumor control (n=31) was significantly longer when compared to patients with progressive disease (mOS of 15 months vs 8.4 months, respectively; p-value of 0.0112) and updated analysis included the first 40 subjects treated with MDNA55 continuing to show an overall survival rate at 12 months (OS-12) of 45%, irrespective of IL4R expression, and OS-12 of 58% in patients showing a treatment response (n=32). This is an improvement of up to 150% when compared to approved therapies for rGBM (OS-12 is 18-34%).

On December 12, 2019, the Company announced a presentation by Dr. Fahar Merchant at the Inaugural Glioblastoma Drug Development Annual Summit. The presentation reported subgroup analysis from the first 40 patients treated with MDNA55 in the Phase 2b clinical trial. The presentation highlighted that the patient characteristics in the clinical study excluded patients that are known to have a much better prognosis, such as patients that were, (a) eligible for surgery to remove the tumor, (b) had a lower grade of brain cancer at initial diagnosis (only *de novo* GBM patients were enrolled), and (c) had a known mutation associated with better prognosis (IDH mutation). Furthermore, the presentation emphasized that despite enrolling only patients known to have a very poor prognosis, patients actually did much better and were surviving significantly longer following only one treatment with MDNA55, particularly in patients with high expression of the IL4R target. Of particular interest, subjects receiving lower doses of steroids (≤ 4mg of concurrent steroid per day) showed a trend towards improved survival, particularly in the IL4R High group, with a mOS of 16.5 months with 88% of patients being still alive at 12 months. In patients resistant to approved chemotherapy temozolomide (rGBM with unmethylated MGMT promoter), MDNA55 treatment in IL4R High patients had a median overall survival of 15.2 months and a 12 month survival rate of 69% versus 22% for lomustine and less than 19% for Avastin®.



1 Brada et al., Ann Oncol. 2001;12(2):259–266.
2 Kim et al., J Clin Neuroscience 22 (2015) 468–473, 2015.
3 Gliadel FDA Label 2018
4 Taal et al., Lancet Oncol 2014 Aug;15(9):943-53.
5 Wick et al., N Engl J Med. 2017 Nov 16;377(20):1954-1963.
6 Friedman et al., J Clin Oncol. 2009 Oct 1;27(28):4733-40.

MEDICENNA

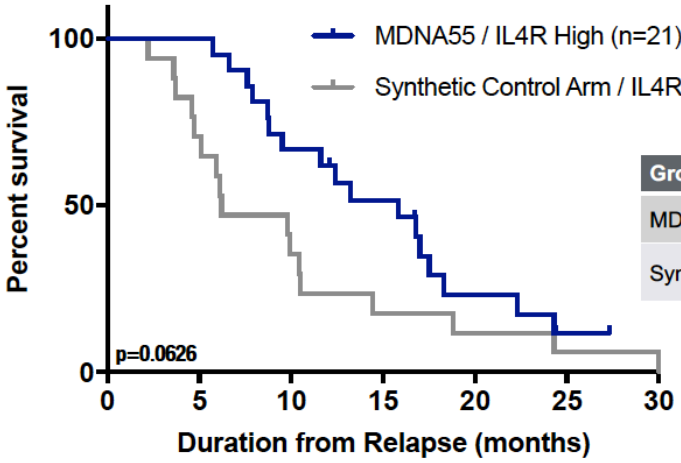
On January 13, 2020, Medicenna announced that it had completed a retrospective study on subjects with rGBM who matched eligibility requirements of subjects enrolled in the MDNA55-05 clinical trial. The study was conducted to compare the survival of subjects treated with MDNA55 in the Phase 2b rGBM clinical trial

versus matched patients (Synthetic Control Arm or SCA) recently treated using other standard therapies. The SCA comprised of 81 rGBM patients receiving standard therapies including Avastin®, lomustine and temozolomide with similar baseline features as patients treated in the MDNA55 trial such as age, tumor size, ineligibility for surgery, IL4R expression and other parameters known to affect survival.

Key data from the study are summarized below and have been computed from the date of relapse rather than from the date of treatment in results previously reported by the Company:

- When comparing IL4R High groups across the two populations, a 150% survival advantage is seen in patients who received MDNA55.
    - IL4R High subjects treated with MDNA55 (n=21) had a mOS of 15.8 months versus 6.2 months in the SCA (n=17), a survival advantage of an impressive 9.6 months.
    - The 12 month overall survival ("OS-12") was 62% in the MDNA55 arm versus 24% in the SCA.
- Regardless of IL4R status, subjects treated with MDNA55 (n=44 subjects comprising the complete per protocol analysis population) demonstrated 112% increase in OS-12 over subjects in the SCA (n=81).
    - OS-12 for the MDNA55 arm was 53% versus 25% in the SCA.
    - mOS in the MDNA55 arm was 12.4 months versus 7.7 in the SCA.

Survival – IL4R High Groups



Group	N	mOS	OS-12
MDNA55 - IL4R High	21	15.8	62%
Synthetic Control - IL4R High	17	6.2	24%

Medicenna plans to have an EOP2 meeting with the FDA in 2020 to discuss the results of the MDNA55 Phase 2b clinical study and the development pathway forward. This date is later than previously anticipated due to additional information being prepared in order to strengthen the submission to the FDA as recommended by regulatory consultants.

The Company expects the completion of clinical development of MDNA55 to full approval (including a pivotal Phase 3 clinical trial), if undertaken by Medicenna, to last until at least 2022, with a projected aggregate cost of up to approximately $75 million, incremental to the current cash on hand. It is anticipated that following the successful completion of the Phase 2b clinical trial and a successful EOP2 meeting with the FDA the Company will work to out-license the program to one or more partners who would fund or co-

fund Phase 3 clinical development of MDNA55 as well as prepare the program for commercialization and its subsequent launch in various countries where approval has been granted. In addition to development and regulatory approval of MDNA55, the Company and/or its partner may also have to develop and commercialize a companion diagnostic to test for IL4R expression prior to treatment with MDNA55. See "*Risk Factors*" below.

Superkine Platform

IL-2 Superkines

IL-2 was one of the first effective immunotherapies developed to treat cancer due to its proficiency at expanding T cells, the central players in cell-mediated immunity. Originally discovered as a growth factor for T cells, IL-2 can also drive the generation of activated immune cells, immune memory cells, and immune tolerance.

In contrast, IL-2 induced overstimulation of immune cells can lead to an imbalance in the ratio of effector and regulatory T cells, resulting in autoimmune diseases.

Part of the reason for this is due to the nature of the IL-2 receptor. The IL-2 receptor is composed of three different subunits, IL-2Rα (also known as CD25), IL-2Rβ (CD122) and IL-2Rγ (CD132). The arrangement of these different proteins determines the response to IL-2 signaling.

The IL-2β and IL-2γ components together make a receptor capable of binding IL-2, but only moderately so. When all three components are together, including IL-2Rα, the receptor binds IL-2 with a much higher affinity. This complete receptor is usually found on regulatory T cells, which dampens an ongoing immune response. The lower affinity receptor, composed of just the IL-2β and IL-2γ components, is more often found on "naive" immune cells, which are awaiting instructions before seeking out cancer cells.

Altering IL-2's propensity for binding these receptors could encourage greater immune cell activation and/or block the function of regulatory cells. Medicenna's MDNA109 and MDNA209 platforms take advantage of this dynamic by binding to specific receptors and either activating (MDNA109) or blocking them (MDNA209). The majority of development has been focused on the MDNA109 platform candidates where promising results have been demonstrated in various animal tumour models, as described below.

MDNA109 (a precursor to MDNA19 and MDNA11) is an enhanced version of IL-2 that binds up to 200 to 1,000 times more effectively to IL-2Rβ, thus greatly increasing its ability to activate and proliferate the immune cells needed to fight cancer. Because it preferentially binds IL-2Rβ and not the receptor containing IL-2Rα, MDNA109 drives effector T cell responses over regulatory T cells. Additionally, MDNA109 reverses NK cell anergy and acts with exceptional synergy when combined with checkpoint inhibitors.

One of the development challenges with MDNA109 was its short half-life, similar to native IL-2, which would require frequent dosing in a commercial setting. In order to extend the half-life of MDNA109, Medicenna fused inactive protein scaffolds to MDNA109 including Fc-fusions (Fc) and Albumin fusions (Alb) and, on August 2, 2018, we announced preliminary preclinical data on long acting variants of MDNA109, showing that these fusions have better pharmacokinetic properties enabling less frequent dosing without sacrificing its efficacy or safety.

Further modifications were made to MDNA109 in its extended half-life forms to enhance pharmacodynamics and further enhance selectivity in order to reduce binding to CD25 which is associated with the toxic side effect profile of Proleukin. These modifications have provided us with two lead candidates in development, MDNA19 and MDNA11.

On February 6, 2019, the Company presented results on MDNA109 and its long acting variants in a podium presentation entitled, "Putting Pedal to the Metal: Combining IL-2 Superkine (MDNA109) with Checkpoint

Inhibitors" by Moutih Rafei, PhD, Associate Professor, Department of Pharmacology and Physiology, Université de Montréal, at the 5th Annual Immuno-Oncology 360° Meeting in New York, NY.

The results presented demonstrated that MDNA109 exhibited 1000-fold enhanced affinity toward the CD122 receptor and best-in-class potency toward cancer killing effector T cells. When tested in vivo, MDNA109 was not immunogenic and led to potent delay in the growth of pre-established B16F10 melanoma tumors compared to IL-2. Likewise, significant delay in the growth of pre-established MC38 and CT-26 colon cancer was observed in syngeneic mice receiving MDNA109, whereas its co-administration with anti-PD1 checkpoint inhibitor eliminated tumors in 90% of MC38 tumor-bearing mice. Furthermore, MDNA109 in combination with anti-CTLA-4 antibody, complete responses were observed in a majority of mice in the CT26 model. When cured animals were re-challenged on the counter-lateral flank with CT26 tumor cells, tumor growth was blocked at the secondary site clearly suggesting the generation of potent memory responses. Additional results on long-acting MDNA109 variants with impaired CD25 binding demonstrated abrogation of regulatory T cell activation at therapeutic doses in order to mitigate peripheral side effects, which are dependent on CD25 binding.

Medicenna presented a poster entitled "Engineering a long-acting CD122 biased IL-2 superkine displaying potent anti-tumoral responses" at the Inaugural Immuno-Oncology Pharma Congress, held from June 18-20, 2019 during World Pharma Week in Boston, MA. Highlights from the presentation by Dr. Moutih Rafei included the following: (a) When MDNA109-LA was co-administered with the immune-checkpoint blocker anti-cytotoxic T-Lymphocyte-Associated Protein (CTLA)4 in a colon cancer mouse model, 67% of animals with pre-established tumors remained tumor-free for over 100 days. When these animals received a second and third re-challenge of the tumor without further treatment, 100% and 75% remained tumor free, respectively, demonstrating a strong memory response. (b) A long-acting variant, MDNA19, engineered to mitigate Treg activation by abolishing binding to the CD25 had 50-fold decreased Treg activity and 6-fold higher activity towards naïve CD8 T cells for an overall 300-fold preferential activation of cancer killing T cells than recombinant IL-2. (c) In addition, binding affinity studies using surface plasmon resonance confirmed absence of CD25 binding by MDNA19. (d) To further validate the potency of MDNA19 mice with pre-established aggressive B16F10 melanoma tumors showed potent tumor control with a weekly dosing schedule.

On July 31, 2019, we announced the selection of MDNA19 as our second immuno-oncology clinical candidate for the treatment of cancer. MDNA19 is a best-in-class long-acting IL-2 developed from Medicenna's MDNA109 Superkine platform that has shown unique ability to selectively stimulate cancer killing immune cells without the limitations seen with other long-acting IL-2 programs.

On September 26, 2019, Medicenna announced the publication of a peer-reviewed article in the August 2019 edition of *Nature Communications* providing independent third-party validation of Medicenna's MDNA109 Superkine platform.

The publication titled "A next-generation tumor-targeting IL-2 preferentially promotes tumor infiltrating CD8+ T-cell response and effective tumor control" describes the safety, efficacy, pharmacokinetics, immunogenicity as well as efficacy profile in different tumor models of long-acting variants of MDNA109 including fusions to antibodies to create tumor targeted immunocytokines. The work reported in the publication is covered by Medicenna's patents and patents in-licensed by the Company.

On September 30, 2019, Medicenna announced the presentation by Dr. Minh To, Director of Preclinical Development at Medicenna, of preclinical data to support the differentiating characteristics of long-acting MDNA109 variants and their potency in vitro and in vivo from other long-acting IL-2 programs.

Highlights from the presentation included:

- *High potency towards naive effector T cells but diminished potency on unwanted regulatory T cells (Tregs)*. Of the long-acting MDNA109 variants, MDNA19 is superior in having decreased binding to CD25 and increased affinity to CD122, therefore selectively activating cancer killing CD8 T cells instead of tumor protecting Tregs.

- *Potent effects as monotherapy with improved PK characteristics*. In CT26 (mouse colon cancer) and B16F10 (mouse melanoma) models, treatment with long acting variants of MDNA109 (biweekly for 2 weeks or once weekly for 2 or 3 weeks) potently inhibited tumor growth. These data suggest that long-acting MDNA109 variants could lead to potent therapeutic effects with a dosing schedule similar to that used for immune checkpoint inhibitors. In addition, the results also confirm that different protein scaffolds may be used to extend the half-life of MDNA109 and can provide similar tumor control as MDNA19.
- *Compelling preclinical synergism with immune checkpoint inhibition*. In a pre-established colon cancer CT26 model, long-acting MDNA109 variants co-administered with the immune-checkpoint blocker anti-cytotoxic T-Lymphocyte-Associated Protein (CTLA) 4, showed significant tumor growth inhibition with as many as 89% of animals remaining tumor-free for over 175 days.
- *Strong Memory Response*. Furthermore, tumor free animals receiving a second and third re-challenge of the tumor without further treatment remained tumor free in up to 100% of mice, demonstrating development of a strong memory response with the ability to prevent tumor relapses.

On March 25, 2020, Medicenna announced preclinical data including NHP data from its IL-2 Superkine program during a conference call and webcast.

The presentation highlighted data from the long-acting variant MDNA19, engineered to have enhanced binding to CD122 without binding to CD25 and included:

- Kinetic studies in NHP showed a dose-dependent upregulation of Ki67 in CD8 T-cells lasting for almost two weeks post-MDNA19 administration, with no apparent side effects.
- When administered to NHP, MDNA19 increases the absolute number of circulating CD8 T-cells in the absence of Treg and eosinophil stimulation (the latter being a major source of IL-5 production which is responsible for triggering vascular leak syndrome and associated toxicity).
- MDNA19 administration as a monotherapy in syngeneic mice with pre-established CT26 colon cancer led to 60% survival and induction of strong and long-lasting memory responses correlating with resistance to subsequent re-challenges.
- Furthermore, MDNA19 treatment of B16F10 tumors favoured activation of CD8 T cells over Tregs in the tumor microenvironment driving a strong therapeutic effect.

Medicenna has commenced GLP and GMP related manufacturing activities with the intention of starting IND enabling studies in the second half of calendar 2020 and initiating a Phase 1/2a clinical trial in mid 2021. These timelines are later than what was previously disclosed as additional optimization to the molecules in development was necessary to to further enhance Medicenna's long acting MDNA109 program as potentially best in class.

Like the MDNA109 platform, MDNA209 therapeutics bind with exceptional affinity to IL-2Rβ, but are unable to bind to the common IL-2γ receptor which in turn blocks signaling and activation of NK cells and memory CD8 T cells. MDNA209 platform offers a variety of candidates that are either partial agonists, partial antagonists or complete antagonists, enabling us to dampen the signaling properties of an over-active immune system to an amplitude that elicits desired therapeutic function without causing undesired toxicity. MDNA209 variants can therefore be used to treat a host of autoimmune diseases such as multiple sclerosis and preliminary studies (Mitra et al, 2015) have shown that MDNA209 variants can also mitigate graft versus host disease (GvHD) following transplantation. Limited work on MDNA209 has been initiated but development timelines have not been established at this time.

IL-4 and IL-13 Superkines

Medicenna's IL-4 and IL-13 Superkines are engineered versions of wild type cytokines which possess enhanced affinity and selectivity for either the Type 1 or Type 2 IL4 receptors or dedicated IL13 receptors such as IL13Rα2. This selectivity is achieved through mutations of the IL-4 or IL-13 proteins to enhance

affinity for binding to specific IL4R or IL13R subunits. Additional mutations have also been engineered to modulate their bioactivity, resulting in Superkines with enhanced signaling (super-agonists) or the ability to block signaling (super-antagonists).

One promising IL-13 Superkine antagonist is MDNA413. Compared to wild type IL-13, MDNA413 has been engineered to have 2,000-fold higher selectivity for the Type 2 IL4R and which potently blocks IL-4 and IL-13 signaling (Moraga et al, 2015). Blocking of Type 2 IL4R by MDNA413 may be relevant not only for targeting solid tumors that overexpress this receptor, but also the Th2 biased tumour microenvironment, which shields the cancer from the immune system.

Another promising IL-13 Superkine is MDNA132. Unlike MDNA413, MDNA132 is an IL-13 ligand that has been engineered to increase affinity for IL13Rα2 overexpressed on certain solid tumors while exhibiting sharply decreased affinity for IL13Rα1. Medicenna believes MDNA132 has superior targeting compared to other IL-13 variants in development, and is an attractively differentiated targeting domain for inclusion in new and exciting field of immuno-oncology based on the CAR-T platform. Development timelines for MDNA132 have yet to be established.

As preparing, submitting, and advancing applications for regulatory approval, developing products and processes and clinical trials are complex, costly, and time consuming processes, an estimate of the future costs related to the development of MDNA413 and MDNA132 is not reasonable at this time.

SELECTED FINANCIAL INFORMATION

	2020	2019	2018
	$	$	$
General and administration	**2,375,211**	1,709,286	2,334,684
Research and development	**5,869,588**	3,017,997	5,090,146
Net loss	**(8,277,069)**	(4,708,031)	(7,465,452)
Basic and diluted loss per share	**(0.26)**	(0.18)	(0.31)
Total assets	**37,996,268**	5,187,428	4,374,582
Total liabilities	**1,847,196**	2,570,871	2,212,757

We have not earned revenue in any of the previous fiscal years, other than income from interest earned on our cash balances.

For the year ended March 31, 2020, we reported a net loss of $8,277,069, or $0.26 per share, compared to a loss of $4,708,031, or $0.18 per share, for the year ended March 31, 2019. The increase in net loss for the year ended March 31, 2020 compared with the year ended March 31, 2019 was primarily a result of lower amount of costs reimbursed under the CPRIT grant in the current year compared with the prior year and an increase in spending on discovery and preclinical expenses associated with the development of the MDNA109 platform (MDNA11 and MDNA19).

Cash utilized in operating activities for the year ended March 31, 2020 of $8,799,856, compared to cash utilized in operating activities for the year ended March 31, 2019 of $8,037,005. The increase in cash utilized in the current year was primarily a result of reduced accounts payable and accrued liabilities balances.

RESULTS OF OPERATIONS FOR THE YEAR ENDING MARCH 31, 2020

Research and Development Expenses

	Year ended March 31, 2020 $	Year ended March 31, 2019 $
Chemistry, manufacturing and controls	**342,578**	399,994
Regulatory	**432,948**	48,105
Discovery and preclinical	**1,898,191**	805,477
Research & Development Warrant	**-**	710,574
Clinical	**1,528,299**	3,710,789
Salaries and benefits	**1,095,118**	1,190,142
Licensing, patent legal fees and royalties	**810,987**	783,458
Stock based compensation	**486,421**	435,439
CPRIT grant claimed on eligible expenses	**(951,166)**	(5,140,039)
Other research and development expenses	**226,282**	74,058
	5,869,588	3,017,997

Research and development ("R&D") expenses of $5,869,588 were incurred during the year ended March 31, 2020, compared with $3,017,997 incurred in the year ended March 31, 2019.

The increase in R&D expenses in the current year is primarily attributable to:

- Increased regulatory costs associated with preparation for the EOP2 meeting.
- Higher discovery and preclinical expenses associated with the development of the MDNA109 platform (MDNA11 and MDNA19) as we advance it towards the clinic.
- Other research and development expenses increased due to travel and administrative costs associated with closing clinical sites, program symposium and the EOP2 meeting.
- A lower reimbursement of expenses with respect to the CPRIT grant of $951,166 in the year ended March 31, 2020, compared with $5,140,039 in the year ended March 31, 2019.

The above increases were partially offset by the following reductions:

- No amortization related to the research & development warrant which was fully amortized in the prior year.
- Lower clinical trial costs due to completion of enrolment in the Phase 2b rGBM clinical study and the wind down of the study.

The clinical trial costs incurred in the current year consist of:

- Clinical trial site close out costs and associated data collection from sites and central labs.
- Completion of all laboratory analysis of samples obtained from clinical trials.
- Costs associated with the initiation and completion of the Synthetic Control Arm study in 81 patients.

General and Administrative Expenses

	Year ended March 31, 2020	Year ended March 31, 2019
	$	$
Depreciation expense	**7,893**	6,818
Stock based compensation	**638,556**	563,180
Facilities and operations	**252,716**	162,995
Legal, professional and finance	**186,026**	166,277
Salaries and benefits	**595,588**	676,952
Corporate communications	**559,089**	368,199
Other expenses	**260,715**	271,054
CPRIT grant claimed on eligible expenses	**(125,372)**	(506,188)
	2,375,211	1,709,286

General and administrative ("G&A") expenses of $2,375,211 were incurred during the year ended March 31, 2020, compared with $1,709,286 during the year ended March 31, 2019.

The increase in G&A expenditures year over year is primarily attributed to lower amounts of expenses eligible for reimbursement from CPRIT in the current year as well as higher facilities and operations expenses associated with office rent and relocation costs and higher corporate communications expenses in the current year due to increased activity. Stock based compensation expense increased in the year ended March 31, 2020 compared with the prior year due to the timing of grants as well as higher Black Scholes values of current year grants.

SUMMARY OF QUARTERLY FINANCIAL RESULTS

	Mar. 31 2020	**Dec. 31 2019**	**Sept. 30 2019**	**June 30 2019**	**Mar. 31 2019**	**Dec. 31 2018**	**Sept. 30 2018**	**June 30 2018**
	$	**$**	**$**	**$**	**$**	**$**	**$**	**$**
Revenue	-	-	-	-	-	-	-	-
General and administration	529,338	741,786	642,548	461,539	414,154	437,218	443,363	414,551
Research and development	2,135,410	1,659,444	1,246,292	828,442	661,314	1,275,896	445,814	634,973
Net loss	(2,688,713)	(2,389,463)	(1,904,259)	(1,294,634)	(1,049,074)	(1,723,081)	(897,659)	(1,038,217)
Basic and diluted loss per share	(0.07)	(0.07)	(0.07)	(0.05)	(0.04)	(0.07)	(0.04)	(0.04)
Total assets	37,996,268	7,315,780	2,243,789	3,674,228	5,187,428	6,017,780	3,408,806	3.644,480
Total liabilities	1,847,196	1,993,314	2,050,249	1,897,899	2,570,871	2,512,414	2,173,528	2,000,746

R&D expenses fluctuate quarter over quarter based on the amount of expenditures eligible for CPRIT reimbursement in the period as well as the pace of the clinical trial enrollment during the period. Research and development costs in the quarter ended December 31, 2018 were higher than prior periods due to patient treatment costs and a lower CPRIT reimbursement in the quarter. During the three months ended March 31, 2020, December 31, 2019 and September 30, 2019, the CPRIT expenses eligible for offset were smaller than comparable quarters and therefore expenses were higher than comparable periods.

G&A expenses are higher in the quarters ended December 31, 2019 and September 30, 2019 due to no expenditures claimed for CPRIT reimbursement as well as higher stock-based compensation costs and expenses associated with investor relations activities.

RESULTS OF OPERATIONS FOR THE THREE MONTHS ENDING MARCH 31, 2020

Research and Development Expenses

	Three months ended March 31, 2020 $	Three months ended March 31, 2019 $
Chemistry, manufacturing and controls	**164,010**	97,866
Regulatory	**168,521**	21,968
Discovery and preclinical	**632,222**	170,452
Clinical	**273,732**	1,029,379
Salaries and benefits	**278,472**	268,932
Licensing, patent legal fees and royalties	**413,260**	213,381
Stock based compensation	**169,131**	139,503
CPRIT grant claimed on eligible expenses	**-**	(1,315,746)
Other research and development expenses	**36,062**	35,579
	2,135,410	661,314

R&D expenses of $2,135,410 were incurred during the three months ended March 31, 2020, compared with $661,314 incurred in the three months ended March 31, 2019.

The increase in R&D expenses in the current year is primarily attributable to:

- No reimbursement of expenses with respect to the CPRIT grant in the three months ended March 31, 2020, compared with a reimbursement of $1,315,746 in the same period in the prior year.
- Increased regulatory costs associated with preparation for the EOP2 meeting.
- Higher discovery, preclinical and manufacturing expenses associated with the development of the MDNA109 platform (MDNA11 and MDNA19) as we advance it towards the clinic.
- Higher patent and licensing fees associated with a license amendment fee.

The above increases were partially offset by lower clinical trial costs due to completion of enrolment in the Phase 2b rGBM clinical study and the wind down of the study.

General and Administrative Expenses

	Three months ended March 31, 2020 $	Three months ended March 31, 2019 $
Depreciation expense	**4,183**	1,704
Stock based compensation	**122,902**	96,966
Facilities and operations	**65,048**	49,161
Legal, professional and finance	**32,717**	30,455
Salaries and benefits	**148,760**	168,204
Corporate communications	**82,243**	114,395
Other expenses	**73,485**	70,186
CPRIT grant claimed on eligible expenses	**-**	(116,917)
	529,338	414,154

G&A expenses of $529,338 were incurred during the three months ended March 31, 2020, compared with $414,154 during the three months ended March 31, 2019.

The increase in G&A expenditures in the current period is primarily attributed to lower amounts of expenses eligible for reimbursement from CPRIT in the current year period.

LIQUIDITY AND CAPITAL RESOURCES

Since inception, the Company has devoted its resources to funding R&D programs, including securing intellectual property rights and licenses, conducting discovery research, manufacturing drug supplies, initiating preclinical and clinical studies, submitting regulatory dossiers and providing administrative support to R&D activities, which has resulted in an accumulated deficit of $31,066,720 as of March 31, 2020. With current revenues only consisting of interest earned on excess cash, cash equivalents and marketable securities, losses are expected to continue while the Company's R&D programs are advanced.

We currently do not earn any revenues from our drug candidates and are therefore considered to be in the development stage. As required, the Company will continue to finance its operations through the sale of equity or pursue non-dilutive funding sources available to the Company in the future. The continuation of our research and development activities for both MDNA55 and the MDNA109 platform (MDNA19 or MDNA11) and the commercialization of MDNA55 is dependent upon our ability to successfully finance and complete our research and development programs through a combination of equity financing and revenues from strategic partners. We have no current sources of revenues from strategic partners.

Management has forecasted that the Company's current level of cash will be sufficient to execute its current planned expenditures for more than the next 24 months without further financing being obtained.

CASH POSITION

At March 31, 2020, we had a cash, cash equivalents and marketable securities balance of $37,700,202, compared to $2,370,976 at March 31, 2019. We invest cash in excess of current operational requirements in highly rated and liquid instruments. Working capital at March 31, 2020 was $36,037,022 (March 31, 2019: $2,709,784).

Subsequent to March 31, 2020, we received gross proceeds of $5,249,999 from fulfillment of the over-allotment in connection with the 2020 Public Offering. We also have up to US$1.4 million remaining available under the CPRIT grant to be used towards the development of MDNA55.

We do not expect to generate positive cash flow from operations for the foreseeable future due to additional R&D expenses, including expenses related to drug discovery, preclinical testing, clinical trials, chemistry, manufacturing and controls and operating expenses associated with supporting these activities. It is expected that negative cash flow from operations will continue until such time, if ever, that we receive regulatory approval to commercialize any of our products under development and/or royalty or milestone revenue from any such products should they exceed our expenses.

CONTRACTUAL OBLIGATIONS

CPRIT assistance

In February 2015, the Company received notice that it had been awarded a grant by CPRIT whereby the Company is eligible to receive up to US$14,100,000 on eligible expenditures over a three year period related to the development of the Company's phase 2b clinical program for MDNA55. In October 2017, the Company was granted a one-year extension to the grant allowing expenses to be claimed over a four-year period ending February 28, 2019. On February 4, 2019 the Company was approved for a further six-month extension ending August 31, 2019, on July 25, 2019 an additional six-month extension was granted to

February 28, 2020 and on January 6, 2020 an additional six-month extension was granted to August 28, 2020.

Of the US$14.1 million grant approved by CPRIT, Medicenna has received US$12.7 million from CPRIT as of March 31, 2020. The Company is eligible to receive the remaining US$1.4 million upon the achievement of certain criteria as determined by CPRIT, from time to time. There can be no assurances that the balance of such grants will be received from CPRIT.

Ongoing program funding from CPRIT is subject to a number of conditions including the satisfactory achievement of milestones that must be met to release additional CPRIT funding, proof the Company has raised 50% matching funds and maintaining substantial functions of the Company related to the project grant in Texas as well as using Texas-based subcontractor and collaborators wherever possible. There can be no assurances that the Company will continue to meet the necessary CPRIT criteria, satisfactorily achieve milestones, or that CPRIT will continue to advance additional funds to the Company.

If the Company is found to have used any grant proceeds for purposes other than intended, is in violation of the terms of the grant, or relocates its MDNA55 related operations outside of the state of Texas, then the Company is required to repay any grant proceeds received.

Under the terms of the grant, the Company is also required to pay a royalty to CPRIT, comprised of 3-5% of revenues on net sales of MDNA55 until aggregate royalty payments equal 400% of the grant funds received at which time the ongoing royalty will be 0.5%.

During the year ended March 31, 2020, the Company received $3,539,465 from CPRIT (2019: $3,242,073).

Intellectual Property

On August 21, 2015, the Company exercised its right to enter into two license agreements with Stanford (the “Stanford License Agreements”). In connection with this licensing agreement the Company issued 649,999 common shares with a value of $98,930 to Stanford and affiliated inventors. The value of these shares has been recorded as an intangible asset that is being amortized over the life of the underlying patents. As at March 31, 2020, the Company’s intangible assets have a remaining capitalized net book value of $76,259 (March 31, 2019: $81,205).

The development milestones under the Stanford License Agreements were updated during the year ended March 31, 2020 to reflect the current stage of development of the Company’s programs. In connection with the amendment of the Stanford License Agreements, Medicenna paid a US$150,000 fee to Stanford.

The Company has entered into various license agreements with respect to accessing patented technology. In order to maintain these agreements, the Company is obligated to pay certain costs based on timing or certain milestones within the agreements, the timing of which is uncertain. These costs include ongoing license fees, patent prosecution and maintenance costs, royalty and other milestone payments. As at March 31, 2020, the Company is obligated to pay the following:

- Patent licensing costs due within 12 months totaling $70,500.
- Patent licensing costs, including the above, due within the next five years totaling $1,283,100.
- Given the current development plans and expected timelines of the Company it is assumed that project milestones of US$50,000 and US$100,000 will be due in the next five years.
- Project milestone payments, assuming continued success in the development programs, of uncertain timing totaling US$2,650,000 and an additional US$2,000,000 in sales milestones.
- A liquidity payment of $370,375 is due to the NIH which represents the remaining payments resulting from the Company’s liquidity event in March 2017.

As part of these license agreements, the Company has committed to make certain royalty payments based on net sales to the NIH and Stanford.

As of March 31, 2020, we have the following obligations to make future payments, representing contracts and other commitments that are known and committed:

	Payments Due by Period			
Contractual obligations	**Less than 1 year**	**1-3 years**	**3-5 years**	**Total**
Patent licensing costs, minimum annual royalties per license agreements	$ 70,500	$ 465,300	$ 747,300	$ 1,283,100
Lease payments	$ 41,460	$ 38,005	$ 0	$ 79,465
Liquidity event payment	$ 370,375	$ 0	$ 0	$ 370,375

The Company cannot reasonably estimate future royalties which may be due upon the regulatory approval of MDNA55 or MDNA109 assets (MDNA11 or MDNA19).

As at March 31, 2020, the Company had obligations to make future payments, representing significant research and development and manufacturing contracts and other commitments that are known and committed, in the amount of approximately $5,740,000. Most of these agreements are cancellable by the Company with notice. These commitments include agreements for manufacturing and preclinical studies.

OFF-BALANCE SHEET ARRANGEMENTS

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

TRANSACTIONS WITH RELATED PARTIES

Key management personnel, which consists of the Company's officers (Dr. Fahar Merchant, President and Chief Executive Officer, Ms. Elizabeth Williams, Chief Financial Officer, and Ms. Rosemina Merchant, Chief Development Officer) and directors, received the following compensation for the following periods:

	Year ended March 31,		**Three months ended March 31,**	
	2020	2019	**2020**	2019
	$	$	**$**	$
Salaries and wages	**891,747**	891,748	**222,937**	222,937
Board fees	**142,264**	141,466	**35,512**	35,278
Stock option expense	**872,585**	786,121	**279,853**	180,247
Related-party rent and moving expenses	**64,561**	21,515	**7,000**	2,093
	1,977,157	1,840,850	**545,302**	440,555

During the year ended March 31, 2020, the Company paid $64,561 (2019: $21,515) in moving, storage and rent expenses to the CEO and CDO of the Company. These transactions were in the normal course of business and have been measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

As at March 31, 2020, the Company had trade and other payables in the normal course of business, owing to directors and officers of $247,696 (2019: $380,328) related to board fees and accrued vacation.

ACCOUNTING PRONOUNCEMENTS ADOPTED IN FISCAL YEAR 2020

The Company has adopted new accounting standard IFRS 16 – Leases ("IFRS 16), effective for the Company's annual period beginning April 1, 2019.

IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model, with certain exemptions. The standard includes two recognition exemptions for lessees: leases of "low-value" assets and short-term leases with a lease term of 12 months or less. At the commencement date of a lease, a lessee will recognize a liability to make lease payments and an asset representing the right to use the underlying asset during the lease term. Lessees will be required to separately recognize the interest expense on the lease liability and the depreciation expense on the right-of-use asset. Lessees are also required to remeasure the lease liability upon the occurrence of certain events such as a change in lease term. The lessee will generally recognize the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset.

At the time of adoption, the Company did not have any leases which fell under IFRS 16, as all leases had a term of 12 months or less.

In March 2020, the Company entered into a lease with a term of two years for which it has applied IFRS 16.

The Company recognized a right-of-use asset based on the amount equal to the lease liability, adjusted for any related prepaid and accrued lease payments previously recognized. The lease liability was recognized based on the present value of remaining lease payments, discounted using the incremental borrowing rate at the date of initial application. The lease payments include fixed payments less any lease incentives receivable, variable lease payments that depend on an index or rate, and amounts expected to be paid under residual value guarantees. The variable lease payments that do not depend on an index or a rate are recognized as expense in the period as incurred.

The carrying amounts of the Company's right-of-use assets and lease liabilities and movements during 2020 were as follows:

	Right of Use	**Lease Liability**
	$	$
Balance as of April 1, 2019	-	-
Additions	70,706	70,706
Depreciation	(2,946)	-
Accreted interest expense	-	62
Payments	-	(3,455)
	67,760	**67,313**
Classification:		
Current portion of lease liabilities	**-**	35,344
Long-term portion of lease liabilities	**-**	31,969
	-	**67,313**

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Accounting policies are described in note 2 of the audited consolidated financial statements.

The Company makes estimates and assumptions about the future that affect the reported amounts of assets and liabilities. Estimates and judgments are continually evaluated based on historical experience

and other factors, including expectations of future events that are believed to be reasonable under the circumstances. In the future, actual experience may differ from these estimates and assumptions. The effect of a change in an accounting estimate is recognized prospectively by including it in comprehensive income in the period of the change, if the change affects that period only, or in the period of the change and future periods, if the change affects both. Significant assumptions about the future and other sources of estimation uncertainty that management has made at the statement of financial position date, that could result in a material adjustment to the carrying amounts of assets and liabilities include:

Fair value of financial instruments

Where the fair value of financial assets and financial liabilities recorded in the consolidated statements of financial position cannot be derived from active markets, they are determined using valuation techniques including discounted cash flow models. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgment is required in establishing fair values.

The judgments include considerations of inputs such as liquidity risk, credit risk and volatility. Significant management judgment is necessary. Changes in assumptions about these factors could affect the reported fair value of financial instruments

Deferred taxes

The determination of deferred income tax assets or liabilities requires subjective assumptions regarding future income tax rates and the likelihood of utilizing tax carry-forwards. Changes in these assumptions could materially affect the recorded amounts, and therefore do not necessarily provide certainty as to their recorded values.

Share-based payments and compensation

The Company applies estimates with respect to the valuation of shares issued for non-cash consideration. Common shares are valued at the fair value of the equity instruments granted at the date the Company receives the goods or services.

The Company measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value for share-based payment transactions requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determining the most appropriate inputs to the valuation model including the fair value of the underlying common shares, the expected life of the share option, volatility and dividend yield and making assumptions about them. The fair value of the underlying common shares are assessed as the most recent issuance price per common share for cash proceeds.

FINANCIAL INSTRUMENTS

(a) Fair value

The Company's financial instruments recognized on the consolidated statements of financial position consist of cash, cash equivalents, marketable securities, government grant receivable, other receivables, accounts payable and accrued liabilities, and license fee payable. The fair value of these instruments, approximate their carry values due to their short-term maturity.

Classification of financial instruments

Financial instruments measured at fair value on the statement of financial position are summarized into the following fair value hierarchy levels:

Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability

Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Company classifies its financial assets and liabilities depending on the purpose for which the financial instruments were acquired, their characteristics, and management intent as outlined below:

Cash, cash equivalents and marketable securities are measured using Level 1 inputs and changes in fair value are recognized through profit or loss, with changes in fair value being recorded in net earnings at each period end.

Other receivables and government grant receivable are measured at amortized cost less impairments.

Accounts payable, accrued liabilities, deferred government grants and license fee payable are measured at amortized cost.

The Company has exposure to the following risks from its use of financial instruments: credit, interest rate, currency and liquidity risk. The Company reviews its risk management framework on a quarterly basis and makes adjustments as necessary.

(b) Financial risk management

We have exposure to credit risk, liquidity risk and market risk. Our Board of Directors has the overall responsibility for the oversight of these risks and reviews our policies on an ongoing basis to ensure that these risks are appropriately managed.

i. Credit risk

Credit risk arises from the potential that a counterparty will fail to perform its obligations. The financial instruments that are exposed to concentrations of credit risk consist of cash and cash equivalents and marketable securities.

The Company attempts to mitigate the risk associated with cash and cash equivalents by dealing only with major Canadian financial institutions with good credit ratings.

ii. Interest rate risk

Interest rate risk is the risk that the fair values and future cash flows of the Company will fluctuate because of changes in market interest rates. The Company believes that its exposure to interest rate risk is not significant.

iii. Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company currently settles all of its financial obligations out of cash. The ability to do so relies on the Company maintaining sufficient cash in excess of anticipated needs. As at March 31, 2020, the Company's liabilities consist of trade and other payables that have contracted maturities of less than one year.

iv. Currency risk

Currency risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Company is exposed to currency risk from employee costs as well as the purchase of goods and services primarily in the United States and the cash balances held in foreign currencies. Fluctuations in the US dollar exchange rate could have a significant

impact on the Company's results. Assuming all other variables remain constant, a 10% depreciation or appreciation of the Canadian dollar against the US dollar would result in an increase or decrease in loss and comprehensive loss for the year ended March 31, 2020 of $108,423 (March 31, 2019: $69,305).

Balances in US dollars are as follows:

	March 31, 2020	March 31, 2019
	$	$
Cash	**134,835**	118,440
Accounts payable and accrued liabilities	**(899,992)**	(1,430,518)
Deferred government grant receivable	**-**	1,831,337
	(765,157)	519,259

(c) Managing Capital

The Company's objectives, when managing capital, are to safeguard cash, cash equivalents and marketable securities as well as maintain financial liquidity and flexibility in order to preserve its ability to meet financial obligations and deploy capital to grow its businesses.

The Company's financial strategy is designed to maintain a flexible capital structure consistent with the objectives stated above and to respond to business growth opportunities and changes in economic conditions. In order to maintain or adjust its capital structure, the Company may issue shares or issue debt (secured, unsecured, convertible and/or other types of available debt instruments).

There were no changes to the Company's capital management policy during the year. The Company is not subject to any externally imposed capital requirements.

USE OF PROCEEDS

The following table provides an update on the anticipated use of proceeds raised in the October 2019 equity offering along with amounts actually expended. As of March 31, 2020, the following expenditures have been incurred:

Item	Amount to Spend	Spent to Date	Adjustments	Remaining to Spend
Continued clinical development of MDNA55	$1,400,000	$1,239,007	–	$160,994
Preclinical development of lead IL2 Superkine MDNA19 or MDNA11	$2,375,000	$1,565,321	–	$809,680
General corporate and working capital purposes	$2,392,002	$644,332	–	$1,747,670
Total	**$6,167,002**	**$3,448,659**	**$ –**	**$2,718,343**

The following table provides an update on the anticipated use of proceeds raised in the 2020 Public Offering along with amounts actually expended. As of March 31, 2020, the following expenditures have been incurred:

Item	Amount to Spend	Spent to Date	Adjustments	Remaining to Spend
Preclinical development of MDNA19 or MDNA11	$3,300,000	–	–	$3,300,000
Manufacturing of MDNA11 or MDNA19 clinical batch	$4,400,000	–	–	$4,400,000
Clinical development of MDNA19 or MDNA11	$13,150,000	–	–	$13,150,000
General corporate and working capital purposes	$11,350,000	–	–	$11,350,000
Total	**$32,200,000**	**$ –**	**$ –**	**$32,200,000**

RISKS AND UNCERTAINTIES

An investment in the Company's common shares (the "Common Shares") involves a high degree of risk and should be considered speculative. An investment in the Common Shares should only be undertaken by those persons who can afford the total loss of their investment. Investors should carefully consider the risks and uncertainties set forth below, as well as other information described elsewhere in this MD&A. The risks and uncertainties below are not the only ones the Company faces. Additional risks and uncertainties not presently known to Medicenna or that Medicenna believes to be immaterial may also adversely affect Medicenna's business. If any of the following risks occur, Medicenna's business, financial condition and results of operations could be seriously harmed and you could lose all or part of your investment. Further, if Medicenna fails to meet the expectations of the public market in any given period, the market price of the Common Shares could decline. Medicenna operates in a highly competitive environment that involves significant risks and uncertainties, some of which are outside of Medicenna's control.

Risks Related to the Company's Business and the Company's Industry

The Company has no sources of product revenue and will not be able to maintain operations and research and development without sufficient funding.

The Company has no sources of product revenue and cannot predict when or if it will generate product revenue. The Company's ability to generate product revenue and ultimately become profitable depends upon its ability, alone or with partners, to successfully develop the product candidates, obtain regulatory approval, and commercialize products, including any of the current product candidates, or other product candidates that may be developed, in-licensed or acquired in the future. The Company does not anticipate generating revenue from the sale of products for the foreseeable future. The Company expects research and development expenses to increase in connection with ongoing activities, particularly as MDNA55 is advanced through clinical trials and the MDNA109 platform (MDNA19 or MDNA11) is advanced towards the clinic.

The Company will require significant additional capital resources to expand its business, in particular the further development of its proposed products. Advancing its product candidates or acquisition and development of any new products or product candidates will require considerable resources and additional access to capital markets. In addition, the Company's future cash requirements may vary materially from those now expected.

The Company can potentially seek additional funding through corporate collaborations and licensing arrangements, through public or private equity or debt financing, or through other transactions. However, if

clinical trial results are neutral or unfavourable, or if capital market conditions in general, or with respect to life sciences companies such as Medicenna, are unfavourable, the Company's ability to obtain significant additional funding on acceptable terms, if at all, will be negatively affected. Additional financing that it may pursue may involve the sale of the Common Shares or financial instruments that are exchangeable for, or convertible into, the Common Shares, which could result in significant dilution to its shareholders. If sufficient capital is not available, the Company may be required to delay the implementation of its business strategy, which could have a material adverse effect on its business, financial condition, prospects or results of operations.

The Company is highly dependent upon certain key personnel and their loss could adversely affect the its ability to achieve its business objective.

The loss of Dr. Fahar Merchant, the President and Chief Executive Officer, Rosemina Merchant, the Chief Development Officer, or other key members of the scientific and operating staff could harm the Company. Employment agreements exist with Dr. Merchant and Ms. Merchant, although such employment agreements do not guarantee their retention. The Company also depends on scientific and clinical collaborators and advisors, all of whom have outside commitments that may limit their availability. In addition, the Company believes that future success will depend in large part upon its ability to attract and retain highly skilled scientific, managerial, medical, clinical and regulatory personnel. Agreements have been entered into with scientific and clinical collaborators and advisors, key opinion leaders and academic partners in the ordinary course of business as well as with physicians and institutions who recruited patients into the MDNA55 clinical trial and will recruit patients into future clinical trials. Notwithstanding these arrangements, there is significant competition for these types of personnel from other companies, research and academic institutions, government entities and other organizations. The loss of the services of any of the executive officers or other key personnel could potentially harm the Company's business, operating results or financial condition.

If the Company breaches any of the agreements under which it licenses rights to product candidates or technology from third parties, it can lose license rights that are important to its business. The Company's current license agreements may not provide an adequate remedy for breach by the licensor.

The Company is developing MDNA55, the MDNA109 platform (MDNA19 and MDNA11) and other earlier stage preclinical and discovery drug candidates pursuant to license agreements with NIH and Stanford (collectively, the "Licensors"). The Company is subject to a number of risks associated with its collaboration with the Licensors, including the risk that the Licensors may terminate the license agreement upon the occurrence of certain specified events. The license agreement requires, among other things, that the Company makes certain payments and use reasonable commercial efforts to meet certain clinical and regulatory milestones. If the Company fails to comply with any of these obligations or otherwise breach this or similar agreements, the Licensors or any future licensors may have the right to terminate the license in whole. The Company can also suffer the consequences of non-compliance or breaches by Licensors in connection with the license agreements. Such non-compliance or breaches by such third parties can in turn result in breaches or defaults under the Company's agreements with other collaboration partners, and the Company can be found liable for damages or lose certain rights, including rights to develop and/or commercialize a product or product candidate. Loss of the Company's rights to the licensed intellectual property or any similar license granted to it in the future, or the exclusivity rights provided therein, can harm the Company's financial condition and operating results.

Clinical drug development involves a lengthy and expensive process with an uncertain outcome, results of earlier studies and trials may not be predictive of future trial results, and the Company's product candidates may not have favourable results in later trials or in the commercial setting.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials may not be predictive of the results of later-stage clinical trials. In the case of MDNA55, the promising results seen in the Phase 2b clinical study may not be replicated in a randomized, controlled Phase 3 clinical study. Success in preclinical or animal studies and early clinical trials does not ensure that

later large-scale efficacy trials will be successful nor does it predict final results. This is applicable to the MDNA109 platform (MDNA19 and MDNA11) as the promising preclinical data may not be replicated in a clinical setting. Favourable results in early trials may not be repeated in later trials. There is no assurance the FDA, the EMA or other similar government bodies will view the results as the Company does or that any future trials of its proposed products for other indications will achieve positive results. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials.

The Company will be required to demonstrate through larger-scale clinical trials that any potential future product is safe and effective for use in a diverse population before it can seek regulatory approvals for commercial sale of its product. There is typically an extremely high rate of attrition from the failure of product candidates proceeding through clinical and post-approval trials. If MDNA55 fails to demonstrate sufficient safety and efficacy in future clinical trials, the Company's operations and financial condition will be adversely impacted.

If the Company's competitors develop and market products that are more effective than the Company's existing product candidates or any products it may develop, or if they obtain marketing approval before it does, the Company's products may be rendered obsolete or uncompetitive.

Technological competition from pharmaceutical companies, biotechnology companies and universities is intense and is expected to increase. Many of the Company's competitors and potential competitors have substantially greater product development capabilities and financial, scientific, marketing and human resources than the Company does. Our future success depends in part on our ability to maintain a competitive position, including our ability to further progress MDNA55 and the MDNA109 platform (MDNA19 and MDNA11) through the necessary preclinical and clinical trials towards regulatory approval for sale and commercialization. Other companies may succeed in commercializing products earlier than we are able to commercialize our products or they may succeed in developing products that are more effective than our products. While the Company will seek to expand its technological capabilities in order to remain competitive, there can be no assurance that developments by others will not render its products non-competitive or that the Company or its licensors will be able to keep pace with technological developments. Competitors have developed technologies that could be the basis for competitive products. Some of those products may have an entirely different approach or means of accomplishing the desired therapeutic effect than the Company's products and may be more effective or less costly than its products. In addition, other forms of medical treatment may offer competition to the products. The success of the Company's competitors and their products and technologies relative to its technological capabilities and competitiveness could have a material adverse effect on the future preclinical and clinical trials of its products, including its ability to obtain the necessary regulatory approvals for the conduct of such trials.

The Company is subject to the restrictions and conditions of the CPRIT agreement. Failure to comply with the CPRIT agreement may adversely affect the Company's financial condition and results of operations.

The Company has obtained a grant from CPRIT to fund a portion of its operations to date. The CPRIT grant is subject to the Company's compliance with the scope of work outlined in the CPRIT agreement and demonstration of its progress towards achievement of the milestones set forth in the CPRIT agreement. If the Company fails to comply with the terms of the CPRIT agreement, it may not receive the remaining US$1.4 million tranche of the CPRIT grant or it may be required to reimburse some or the entire CPRIT grant. Further, the CPRIT grant may only be applied to a limited number of allowable expenses. Failure to obtain the remaining tranche of the CPRIT grant or being required to reimburse all or a portion of the CPRIT grant may cause a halt or delay in ongoing operations, which may adversely affect the Company's financial condition and operating results.

The Company relies and will continue to rely on third parties to plan, conduct and monitor preclinical studies and clinical trials, and their failure to perform as required could cause substantial harm to the Company's business.

The Company relies and will continue to rely on third parties to conduct a significant portion of clinical development and planned preclinical activities. Preclinical activities include *in vivo* studies providing access to specific disease models, pharmacology and toxicology studies, and assay development. Clinical development activities include trial design, regulatory submissions, clinical patient recruitment, clinical trial monitoring, clinical data management and analysis, safety monitoring and project management. If there is any dispute or disruption in the Company's relationship with third parties, or if the Company is unable to provide quality services in a timely manner and at a feasible cost, any active development programs could face delays. Further, if any of these third parties fails to perform as expected or if their work fails to meet regulatory requirements, testing could be delayed, cancelled or rendered ineffective.

The Company relies on contract manufacturers over whom the Company has limited control. If the Company is subject to quality, cost or delivery issues with the preclinical and clinical grade materials supplied by contract manufacturers, business operations could suffer significant harm.

The Company has limited manufacturing experience and relies on contract development and manufacturing organizations ("CDMOs"), to manufacture MDNA55 for clinical trials and the MDNA109 platform (MDNA19 and MDNA11) for preclinical development. The Company relies on CDMOs for manufacturing, filling, packaging, storing and shipping of drug product in compliance with cGMP, regulations applicable to its products. The FDA ensures the quality of drug products by carefully monitoring drug manufacturers' compliance with cGMP regulations. The cGMP regulations for drugs contain minimum requirements for the methods, facilities and controls used in manufacturing, processing and packing of a drug product. The Company plans to utilize CDMOs that are licensed by both the FDA and the EMA.

There can be no assurances that the CDMOs selected will be able to meet future timetables and requirements. If the Company is unable to arrange for alternative third-party manufacturing sources on commercially reasonable terms or in a timely manner, it may delay the development of the product candidates. Further, contract manufacturers must operate in compliance with cGMP and failure to do so could result in, among other things, the disruption of product supplies. The Company's dependence upon third parties for the manufacture of its products may adversely affect profit margins and ability to develop and deliver products on a timely and competitive basis.

The Company's future success is dependent primarily on the regulatory approval of a single product.

The Company does not have any products that have gained regulatory approval. Currently, its only clinical product candidate is MDNA55. As a result, the Company's near-term prospects, including its ability to finance its operations and generate revenue, are substantially dependent on its ability to obtain regulatory approval for, and, if approved, to successfully commercialize MDNA55 in a timely manner. The Company cannot commercialize MDNA55 or other future product candidates in the United States without first obtaining regulatory approval for the product from the FDA; similarly, it cannot commercialize MDNA55 or other future product candidates outside of the United States without obtaining regulatory approval from comparable foreign regulatory authorities. Although MDNA55 has received Orphan Drug (FDA, EMA) and Fast Track (FDA) designations, there can be no assurance regulatory approval will be granted. Before obtaining regulatory approvals for the commercial sale of MDNA55 or other future product candidates for a target indication, the Company must demonstrate with substantial evidence gathered in preclinical and clinical studies to the satisfaction of the relevant regulatory authorities, that the product candidate is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate. Many of these factors are beyond the Company's control. If the Company, or its potential commercialization collaborators, are unable to successfully commercialize MDNA55, the Company may not be able to earn sufficient revenues to continue its business.

The Company may not achieve its publicly announced milestones according to schedule, or at all.

From time to time, the Company may announce the timing of certain events expected to occur, such as the anticipated timing of results from clinical trials. These statements are forward-looking and are based on the best estimates of management at the time relating to the occurrence of such events. However, the actual timing of such events may differ from what has been publicly disclosed. The timing of events such as initiation or completion of a clinical trial, filing of an application to obtain regulatory approval, or announcement of additional clinical trials for a product candidate may ultimately vary from what is publicly disclosed. These variations in timing may occur as a result of different events, including the ability to recruit patients in a clinical trial in a timely manner, the nature of results obtained during a clinical trial or during a research phase, problems with a CDMO or a contract research organization ("CRO"), or any other event having the effect of delaying the publicly announced timeline. The Company undertakes no obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as otherwise required by law. Any variation in the timing of previously announced milestones could have a material adverse effect on the business plan, financial condition or operating results and the trading price of the Common Shares.

MDNA55 is in the mid stages of clinical development and the MDNA109 platform (MDNA19 and MDNA11) in preclinical development and, as a result, the Company will be unable to predict whether it will be able to profitably commercialize its product candidates.

The Company has not received regulatory approval for the sale of MDNA55 in any market. Accordingly, the Company has not generated any revenues from product sales. A substantial commitment of resources to conduct clinical trials and for additional product development will be required to commercialize all of our product candidates. There can be no assurance that MDNA55, the MDNA109 platform (MDNA19 and MDNA11) or any of our other product candidates will meet applicable regulatory standards, be capable of being produced in commercial quantities at reasonable cost or be successfully marketed, or that the investment made by the Company in the commercialization of the products will be recovered through sales, license fees or related royalties.

The Company will be subject to extensive government regulation that will increase the cost and uncertainty associated with gaining final regulatory approval of its product candidates.

Securing final regulatory approval for the manufacture and sale of human therapeutic products in the United States, Canada and other markets is a long and costly process that is controlled by that particular country's national regulatory agency. Approval in the United States, Canada or Europe does not assure approval by other national regulatory agencies, although often test results from one country may be used in applications for regulatory approval in another country. Other national regulatory agencies have similar regulatory approval processes, but each is different.

Prior to obtaining final regulatory approval to market a drug product, every national regulatory agency has a variety of statutes and regulations which govern the principal development activities. These laws require controlled research and testing of products, government review and approval of a submission containing preclinical and clinical data establishing the safety and efficacy of the product for each use sought, approval of manufacturing facilities including adherence to cGMP during production and storage and control of marketing activities, including advertising and labelling. There can be no assurance that MDNA55 or the MDNA109 platform (MDNA19 and MDNA11) will be successfully commercialized in any given country. There can be no assurance that the Company's licensed products will prove to be safe and effective in clinical trials under the standards of the regulations in the various jurisdictions or receive applicable regulatory approvals from applicable regulatory bodies.

Negative results from clinical trials or studies of third parties and adverse safety events involving the targets of the Company's products may have an adverse impact on future commercialization efforts.

From time to time, studies or clinical trials on various aspects of biopharmaceutical products are conducted by academic researchers, competitors or others. The results of these studies or trials, when published, may

have a significant effect on the market for the biopharmaceutical product that is the subject of the study. The publication of negative results of studies or clinical trials or adverse safety events related to the Company's product candidates, or the therapeutic areas in which the Company's product candidates compete, could adversely affect the share price and ability to finance future development of the Company's product candidates, and the business and financial results could be materially and adversely affected.

The Company faces the risk of product liability claims, which could exceed its insurance coverage and produce recalls, each of which could deplete cash resources.

The Company is exposed to the risk of product liability claims alleging that use of its product candidate MDNA55, and in the future, the MDNA109 platform (MDNA19 and MDNA11), caused an injury or harm. These claims can arise at any point in the development, testing, manufacture, marketing or sale of product candidates and may be made directly by patients involved in clinical trials of product candidates, by consumers or healthcare providers or by individuals, organizations or companies selling the products. Product liability claims can be expensive to defend, even if the product or product candidate did not actually cause the alleged injury or harm.

Insurance covering product liability claims becomes increasingly expensive as a product candidate moves through the development pipeline to commercialization. Currently the Company maintains clinical trial liability insurance coverage of $5 million. However, there can be no assurance that such insurance coverage is or will continue to be adequate or available at a cost acceptable to the Company or at all. The Company may choose or find it necessary under its collaborative agreements to increase the insurance coverage in the future but may not be able to secure greater or broader product liability insurance coverage on acceptable terms or at reasonable costs when needed. Any liability for damages resulting from a product liability claim could exceed the amount of the coverage, require payment of a substantial monetary award from the Company's cash resources and have a material adverse effect on the business, financial condition and results of operations. Moreover, a product recall, if required, could generate substantial negative publicity about the products and business, inhibit or prevent commercialization of other products and product candidates or negatively impact existing or future collaborations.

Changes in government regulations, although beyond the Company's control, could have an adverse effect on the Company's business.

The Company depends upon the validity of its licenses and access to the data for the timely completion of clinical research. Any changes in the drug development regulatory environment or shifts in political attitudes of a government are beyond the Company's control and may adversely affect its business. The Company's business may also be affected in varying degrees by such factors as government regulations with respect to intellectual property, regulation or export controls. Such changes remain beyond the Company's control and the effect of any such changes cannot be predicted. These factors could have a material adverse effect on the Company's ability to further develop its licensed products.

The Company's significant shareholders may have material influence over its governance and operations.

Dr. Fahar Merchant and Ms. Rosemina Merchant (collectively, the "Merchants"), hold a significant interest in the Company's outstanding Common Shares on a fully diluted basis. For as long as the Merchants maintain a significant interest in the Company, they may be in a position to affect the Company's governance and operations. In addition, the Merchants may have significant influence over the passage of any resolution of the Company's shareholders (such as those that would be required to amend the constating documents or take certain other corporate actions) and may, for all practical purposes, be able to ensure the passage of any such resolution by voting for it or prevent the passage of any such resolution by voting against it. The effect of this influence may be to limit the price that investors are willing to pay for the Common Shares. In addition, the potential that the Merchants may sell their Common Shares in the public market (commonly referred to as "market overhang"), as well as any actual sales of such Common Shares in the public market, could adversely affect the market price of the Common Shares.

If the Company is unable to enroll subjects in clinical trials, it will be unable to complete these trials on a timely basis.

It is anticipated that the COVID-19 pandemic crisis will impact ongoing trial activities across the industry due to the pressure placed on the healthcare system as well as governmental and institutional restrictions. The Company is not currently enrolling patients in a clinical study and does not plan to enroll additional patients until 2021. Should the COVID-19 pandemic continue into 2021 the Company's will need to determine at that time if initiating a clinical trial is feasible and if so the clinical team will need to work closely with each clinical site and a CRO on a plan to ensure that patient safety and the integrity of data is maintained. It is noted that some clinical sites have paused or slowed enrollment in clinical trials, while other sites, less impacted, are continuing activities as planned.

Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the proximity of subjects to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, ability to obtain and maintain patient consents, risk that enrolled subjects will drop out before completion, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications the Company is investigating. Furthermore, the Company relies on CROs and clinical trial sites to ensure the proper and timely conduct of its clinical trials, and while it has agreements governing their committed activities, the Company has limited influence over their actual performance.

If the Company experiences delays in the completion or termination of any clinical trial of its proposed products or any future product candidates, the commercial prospects of its product candidates will be harmed and its ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing clinical trials will increase costs, slow down product candidate development and approval process and can shorten any periods during which the Company may have the exclusive right to commercialize its product candidates or allow its competitors to bring products to market before it does. Delays can further jeopardize the Company's ability to commence product sales, which will impair its ability to generate revenues and may harm the business, results of operations, financial condition and cash flows and future prospects. In addition, many of the factors that can cause a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of its proposed products or its future product candidates.

The Company's discovery and development processes involve use of hazardous and radioactive materials which may result in potential environmental exposure.

The Company's discovery and development processes involve the controlled use of hazardous and radioactive materials. The Company is subject to federal, provincial, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although the Company believes that the current safety procedures for handling and disposing of such materials comply with the standards prescribed by such laws and regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, the Company could be held liable for any damages that result and any such liability could exceed the Company's resources. The Company is not specifically insured with respect to this liability. Although the Company believes that the Company is in compliance in all material respects with applicable environmental laws and regulations and currently does not expect to make material capital expenditures for environmental control facilities in the near term, there can be no assurance that the Company will not be required to incur significant costs to comply with environmental laws and regulations in the future, or that the operations, business or assets will not be materially adversely affected by current or future environmental laws or regulations.

If the Company is unable to successfully develop companion diagnostics for its therapeutic product candidates, or experience significant delays in doing so, the Company may not achieve marketing approval or realize the full commercial potential of its therapeutic product candidates.

The Company plans to develop companion diagnostics for its therapeutic product candidates. It is expected that, at least in some cases, regulatory authorities may require the development and regulatory approval of a companion diagnostic as a condition to approving a therapeutic product candidate. The Company has limited experience and capabilities in developing or commercializing diagnostics and plans to rely in large part on third parties to perform these functions. The Company does not currently have any agreement in place with any third party to develop or commercialize companion diagnostics for any of its therapeutic product candidates.

Companion diagnostics are subject to regulation by the FDA, Health Canada and comparable foreign regulatory authorities as medical devices and may require separate regulatory approval or clearance prior to commercialization. If the Company, or any third parties that the Company engages to assist, are unable to successfully develop companion diagnostics for the Company's therapeutic product candidates, or experience delays in doing so, the Company's business may be substantially harmed.

Significant disruption in availability of key components for ongoing clinical studies could considerably delay completion of potential clinical trials, product testing and regulatory approval of potential product candidates.

The Company relies on third parties to supply ingredients and excipients for the manufacture and formulation of its drugs, catheters required to deliver the drug to the brain as well as imaging software to accurately place catheters in the tumor ("Components"). Each of the suppliers of these Components in turn need to comply with regulatory requirements. Any significant disruption in supplier relationships could harm the Company's business, including the potential impact of COVID-19. Any significant delay in the supply of a Component, for a potential ongoing clinical study could considerably delay completion of potential clinical trials, product testing and regulatory approval of potential product candidates. If the Company or its suppliers are unable to purchase these Components after regulatory approval has been obtained for the product candidates, or the suppliers decide not to manufacture these Components or provide support for any of the Components, clinical trials or the commercial launch of that product candidate would be delayed or there would be a shortage in supply, which would impair the ability to generate revenues from the sale of the product candidates. It may take several years to establish an alternative source of supply for such Components and to have any such new source approved by the FDA and other regulatory agencies.

Risks Related to Intellectual Property and Litigation

The Company's success depends upon its ability to protect its intellectual property and its proprietary technology.

The Company's success depends, in part, on its ability and its licensors' ability to obtain patents, maintain trade secrets protection and operate without infringing on the proprietary rights of third parties or having third parties circumvent its rights. Certain licensors and the institutions that they represent, and in certain cases, have filed and are actively pursuing certain applications for Canadian and foreign patents. The patent position of pharmaceutical and biotechnology firms is uncertain and involves complex legal and financial questions for which, in some cases, certain important legal principles remain unresolved. There can be no assurance that the patent applications made in respect of the owned or licensed products will result in the issuance of patents, that the term of a patent will be extendable after it expires in due course, that the licensors or the institutions that they represent will develop additional proprietary products that are patentable, that any patent issued to the licensors or the Company will provide it with any competitive advantages, that the patents of others will not impede its ability to do business or that third parties will not be able to circumvent or successfully challenge the patents obtained in respect of the licensed products. The cost of obtaining and maintaining patents is high. Furthermore, there can be no assurance that others will not independently develop similar products which duplicate any of the licensed products or, if patents are issued, design around the patent for the product. There can be no assurance that the Company's

processes or products or those of its licensors do not or will not infringe upon the patents of third parties or that the scope of its patents or those of its licensors will successfully prevent third parties from developing similar and competitive products.

Much of the Company's know-how and technology may not be patentable, though it may constitute trade secrets. There can be no assurance, however, that the Company will be able to meaningfully protect its trade secrets. To help protect its intellectual property rights and proprietary technology, the Company requires employees, consultants, advisors and collaborators to enter into confidentiality agreements. There can be no assurance that these agreements will provide meaningful protection for its intellectual property rights or other proprietary information in the event of any unauthorized use or disclosure.

The Company's potential involvement in intellectual property litigation could negatively affect its business.

Its future success and competitive position depends in part upon its ability to maintain the its intellectual property portfolio. There can be no assurance that any patents will be issued on any existing or future patent applications. Even if such patents are issued, there can be no assurance that any patents issued or licensed to the Company will not be challenged. The Company's ability to establish and maintain a competitive position may be achieved in part by prosecuting claims against others who it believes are infringing its rights and by defending claims brought by others who believe that the Company is infringing their rights. In addition, enforcement of its patents in foreign jurisdictions will depend on the legal procedures in those jurisdictions. Even if such claims are found to be invalid, the Company's involvement in intellectual property litigation could have a material adverse effect on its ability to out-license any products that are the subject of such litigation. In addition, its involvement in intellectual property litigation could result in significant expense, which could materially adversely affect the use or licensing of related intellectual property and divert the efforts of its valuable technical and management personnel from their principal responsibilities, whether or not such litigation is resolved in its favour.

The Company's reliance on third parties requires it to share its trade secrets, which increases the possibility that a competitor will discover them.

Because the Company relies on third parties to develop its products, it must share trade secrets with them. The Company seeks to protect its proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements or other similar agreements with its collaborators, advisors, employees and consultants prior to beginning research or disclosing proprietary information. These agreements typically restrict the ability of the Company's collaborators, advisors, employees and consultants to publish data potentially relating to the Company's trade secrets. The Company's academic collaborators typically have rights to publish data, provided that the Company is notified in advance and may delay publication for a specified time in order to secure its intellectual property rights arising from the collaboration. In other cases, publication rights are controlled exclusively by the Company, although in some cases it may share these rights with other parties. The Company also conducts joint research and development programs which may require it to share trade secrets under the terms of research and development collaboration or similar agreements. Despite the Company's efforts to protect its trade secrets, its competitors may discover its trade secrets, either through breach of these agreements, independent development or publication of information including its trade secrets in cases where the Company does not have proprietary or otherwise protected rights at the time of publication. A competitor's discovery of the Company's trade secrets may impair its competitive position and could have a material adverse effect on its business and financial condition.

Product liability claims are an inherent risk of the Company's business, and if the Company's clinical trial and product liability insurance prove inadequate, product liability claims may harm its business.

Human therapeutic products involve an inherent risk of product liability claims and associated adverse publicity. There can be no assurance that the Company will be able to obtain or maintain product liability insurance on acceptable terms or with adequate coverage against potential liabilities. Such insurance is expensive, difficult to obtain and may not be available in the future on acceptable terms, or at all. An inability to obtain sufficient insurance coverage on reasonable terms or to otherwise protect against potential

product liability claims could have a material adverse effect on the Company's business by preventing or inhibiting the commercialization of its products, licensed and owned, if a product is withdrawn or a product liability claim is brought against the Company.

Generally, a litigation risk exists for any company that may compromise its ability to conduct the Company's business.

All industries are subject to legal claims, with and without merit. Defense and settlement costs can be substantial, even with respect to claims that have no merit. Due to the inherent uncertainty of the litigation process, the resolution of any particular legal proceeding could have a material adverse effect on the Company's business, prospects, financial condition and results of operations.

Other Risks

Our Common Share price has been volatile in recent years and may continue to be volatile.

The market prices for securities of biotechnology companies, including ours, have historically been volatile. In the year ended March 31, 2020, our Common Shares traded on the TSX at a high of $4.86 and a low of $0.64 per share. A number of factors could influence the volatility in the trading price of our Common Shares, including changes in the economy or in the financial markets, industry related developments, the results of product development and commercialization, changes in government regulations, and developments concerning proprietary rights, litigation and cash flow. Our quarterly losses may vary because of the timing of costs for clinical trials, manufacturing and preclinical studies. Also, the reporting of clinical data or the lack thereof, adverse safety events involving our products and public rumors about such events could cause our share price to decline or experience periods of volatility. Each of these factors could lead to increased volatility in the market price of our Common Shares. In addition, changes in the market prices of the securities of our competitors may also lead to fluctuations in the trading price of our Common Shares.

Future sales or issuances of equity securities or the conversion of securities into Common Shares could decrease the value of the Common Shares, dilute investors' voting power, and reduce earnings per share.

The Company may sell additional equity securities in future offerings, including through the sale of securities convertible into equity securities, to finance operations, acquisitions or projects, and issue additional Common Shares if outstanding securities are converted into Common Shares, which may result in dilution.

The Company's board of directors will have the authority to authorize certain offers and sales of additional securities without the vote of, or prior notice to, shareholders. Based on the need for additional capital to fund expected expenditures and growth, it is likely that the Company will issue additional securities to provide such capital.

Sales of substantial amounts of securities, or the availability of such securities for sale, as well as the issuance of substantial amounts of Common Shares upon conversion or exchange of outstanding convertible or exchangeable securities, could adversely affect the prevailing market prices for securities and dilute investors' earnings per share. A decline in the future market prices of the Company's securities could impair its ability to raise additional capital through the sale of securities should it desire to do so.

In the past, following periods of volatility in the market price of a company's securities, shareholders have instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm the Company's profitability and reputation.

The market price for the Common Shares may also be affected by the Company's ability to meet or exceed expectations of analysts or investors. Any failure to meet these expectations, even if minor, may have a material adverse effect on the market price of the Common Shares.

The Company is subject to foreign exchange risk relating to the relative value of the United States dollar.

A material portion of the Company's expenses are denominated in United States dollars. As a result, the Company is subject to foreign exchange risks relating to the relative value of the Canadian dollar as compared to the United States dollar. A decline in the Canadian dollar would result in an increase in the actual amount of its expenses and adversely impact financial performance.

The Company's disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

The Company's disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by the Company in reports it files or submits under applicable securities laws is accumulated and communicated to management, recorded, processed, summarized and reported within the time periods specified under applicable securities laws. The Company believes that any disclosure controls and procedures or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in the Company's control system, misstatements or insufficient disclosures due to error or fraud may occur and not be detected.

Any failure to maintain an effective system of internal controls may result in material misstatements of the Company's consolidated financial statements or cause the Company to fail to meet the reporting obligations or fail to prevent fraud; and in that case, shareholders could lose confidence in the Company's financial reporting, which would harm the business and could negatively impact the price of the Common Shares.

Effective internal controls are necessary to provide reliable financial reports and prevent fraud. If there is a failure to maintain an effective system of internal controls, the Company might not be able to report financial results accurately or prevent fraud; and in that case, shareholders could lose confidence in the Company's financial reporting, which would harm the business and could negatively impact the price of the Common Shares. While the Company believes that it will have sufficient personnel and review procedures to maintain an effective system of internal controls, no assurance can be provided that potential material weaknesses in internal control could arise. Even if it is concluded that the internal control over financial reporting provides reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with IFRS, as issued by the International Accounting Standards Board (IASB), because of its inherent limitations, internal control over financial reporting may not prevent or detect fraud or misstatements. Failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm results of operations or cause a failure to meet future reporting obligations.

Failure to comply with the U.S. Foreign Corrupt Practices Act ("FCPA"), the Canadian Corruption of Foreign Public Officials Act ("CFPOA"), and other global anti-corruption and anti-bribery laws could subject the Company to penalties and other adverse consequences.

The FCPA and the CFPOA, as well as any other applicable domestic or foreign anti-corruption or anti-bribery laws to which the Company is or may become subject generally prohibit corporations and individuals from engaging in certain activities to obtain or retain business or to influence a person working in an official capacity and requires companies to maintain accurate books and records and internal controls, including at foreign-controlled subsidiaries.

Compliance with these anti-corruption laws and anti-bribery laws may be expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, these laws present particular challenges in the pharmaceutical industry, because, in many countries, hospitals are operated by the government, and physicians and other hospital employees are considered to be foreign officials. Certain payments by other companies to hospitals in connection with clinical trials and other work have been deemed to be improper payments to governmental officials and have led to FCPA enforcement actions.

The Company's internal control policies and procedures may not protect it from reckless or negligent acts committed by the Company's employees, future distributors, licensees or agents. The Company can make no assurance that they will not engage in prohibited conduct, and the Company may be held liable for their acts under applicable anti-corruption and anti-bribery laws. Noncompliance with these laws could subject the Company to investigations, sanctions, settlements, prosecution, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, suspension or debarment from contracting with certain persons, the loss of export privileges, whistleblower complaints, reputational harm, adverse media coverage, and other collateral consequences. Any investigations, actions or sanctions or other previously mentioned harm could have a material negative effect on the Company's business, operating results and financial condition.

Any future profits will likely be used for the continued growth of the business and products and will not be used to pay dividends on the issued and outstanding shares.

The Company will not pay dividends on the issued and outstanding Common Shares in the foreseeable future. If the Company generates any future earnings, such cash resources will be retained to finance further growth and current operations. The board of directors will determine if and when dividends should be declared and paid in the future based on the Company's financial position and other factors relevant at the particular time. Until the Company pays dividends, which it may never do, a shareholder will not be able to receive a return on his or her investment in the Common Shares unless such Common Shares are sold. In such event, a shareholder may only be able to sell his, her or its Common Shares at a price less than the price such shareholder originally paid for them, which could result in a significant loss of such shareholder's investment.

The Company may pursue other business opportunities in order to develop its business and/or products.

From time to time, the Company may pursue opportunities for further research and development of other products. The Company's success in these activities will depend on its ability to identify suitable technical experts, market needs, and effectively execute any such research and development opportunities. Any research and development would be accompanied by risks as a result of the use of business efforts and funds. In the event that the Company chooses to raise debt capital to finance any such research or development opportunities, its leverage will be increased. There can be no assurance that the Company would be successful in overcoming these risks or any other problems encountered in connection with any research or development opportunities.

The Company may acquire businesses or products, or form strategic alliances, in the future, and the Company may not realize the benefits of such acquisitions.

The Company may acquire additional businesses or products, form strategic alliances or create joint ventures with third parties that the Company believes will complement or augment its existing business. If the Company acquires businesses with promising products or technologies, the Company may not be able to realize the benefit of acquiring such businesses if the Company is unable to successfully integrate them with its existing operations and company culture. The Company may encounter numerous difficulties in developing, manufacturing and marketing any new products resulting from a strategic alliance or acquisition that delay or prevent it from realizing their expected benefits or enhancing the Company's business. The Company cannot assure investors that, following any such acquisition, it will achieve the expected synergies to justify the transaction.

The Company's success depends on its ability to effectively manage its growth.

The Company may be subject to growth-related risks including pressure on its internal systems and controls. The Company's ability to manage its growth effectively will require the Company to continue to implement and improve its operational and financial systems and to expand, train and manage its employee base. Inability to deal with this growth could have a material adverse impact on its business, operations and prospects. The Company may experience growth in the number of its employees and the scope of its operating and financial systems, resulting in increased responsibilities for its personnel, the hiring of

additional personnel and, in general, higher levels of operating expenses. In order to manage its current operations and any future growth effectively, the Company will also need to continue to implement and improve its operational, financial and management information systems and to hire, train, motivate, manage and retain its employees. There can be no assurance that the Company will be able to manage such growth effectively, that its management, personnel or systems will be adequate to support its operations or that the Company will be able to achieve the increased levels of revenue commensurate with the increased levels of operating expenses associated with this growth.

If the Company is treated as a passive foreign investment company, United States shareholders may be subject to adverse U.S. federal income tax consequences

Under the U.S. Internal Revenue Code of 1986, as amended (the "Code"), the Company will be classified as a passive foreign investment company ("PFIC") in respect of any taxable year in which either (i) 75% or more of its gross income consists of certain types of "passive income" or (ii) 50% or more of the average quarterly value of its assets is attributable to "passive assets" (assets that produce or are held for the production of passive income). For purposes of these tests, passive income includes dividends, interest, gains from the sale or exchange of investment property and certain rents and royalties. In addition, for purposes of the above calculations, if the Company directly or indirectly owns at least 25% by value of the shares of another corporation, the Corporation will be treated as if it held its proportionate share of the assets and received directly its proportionate share of the income of such other corporation. PFIC status is a factual determination that needs to be made annually after the close of each taxable year, on the basis of the composition of the Company's income, the relative value of its active and passive assets, and its market capitalization. For this purpose, the Company's PFIC status depends in part on the application of complex rules, which may be subject to differing interpretations, relating to the classification of the Company's income and assets. Based on our interpretation of the law, the Company's recent financial statements, and considering expectations about the Company's income, assets and activities, the Company believes that it was a PFIC for the taxable year ended March 31, 2020 and expects that it will be a PFIC for the current taxable year.

If the Company is a PFIC for any taxable year during which a United States shareholder holds the Common Shares, the Company will continue to be treated as a PFIC with respect to such United States shareholder in all succeeding years during which the United States shareholder owns the Common Shares, regardless of whether the Company continues to meet the PFIC test described above, unless the United States shareholder makes a specified election once the Company ceases to be a PFIC. If the Company is classified as a PFIC for any taxable year during which a United States shareholder holds the Common Shares, the United States shareholder may be subject to adverse tax consequences regardless of whether the Company continues to qualify as a PFIC, including ineligibility for any preferred tax rates on capital gains or on actual or deemed dividends, interest charges on certain taxes treated as deferred, and additional reporting requirements. In certain circumstances, a United States shareholder may alleviate some of the adverse tax consequences attributable to PFIC status by making either a "qualified electing fund," ("QEF") election or a mark-to-market election (if the Common Shares constitute "marketable" securities under the Code). If the Company determines that it is a PFIC for this year or any future taxable year, the Company currently expects that it would provide the information necessary for United States shareholders to make a QEF election.

Each United States shareholder should consult its own tax advisors regarding the PFIC rules and the United States federal income tax consequences of the acquisition, ownership and disposition of the Common Shares.

The Company's operations could be adversely affected by events outside of its control, such as natural disasters, wars or health epidemics

The Company may be impacted by business interruptions resulting from pandemics and public health emergencies, including those related to COVID-19 coronavirus, geopolitical actions, including war and terrorism or natural disasters including earthquakes, typhoons, floods and fires. An outbreak of infectious disease, a pandemic or a similar public health threat, such as the recent outbreak of the novel coronavirus

known as COVID-19, or a fear of any of the foregoing, could adversely impact the Company by causing operating, manufacturing supply chain, clinical trial and project development delays and disruptions, labour shortages, travel and shipping disruption and shutdowns (including as a result of government regulation and prevention measures). It is unknown whether and how the Company may be affected if such an epidemic persists for an extended period of time. The Company may incur expenses or delays relating to such events outside of its control, which could have a material adverse impact on its business, operating results and financial condition.

It may be difficult for non-Canadian investors to obtain and enforce judgments against the Company because of the Company's Canadian incorporation and presence.

The Company is a corporation existing under the federal laws of Canada. Most of the Company's directors and officers, and several of the experts, are residents of Canada, and all or a substantial portion of their assets, and a substantial portion of the Company's assets, are located outside the United States. Consequently, it may be difficult for holders of the Company's securities who reside in the United States to effect service of process within the United States upon those directors, officers and experts who are not residents of the United States. It may also be difficult for holders of the Company's securities who reside in the United States to realize in the United States upon judgments of courts of the United States predicated upon the Company's civil liability and the civil liability of the Company's directors, officers and experts under the United States federal securities laws. Investors should not assume that Canadian courts (i) would enforce judgments of United States courts obtained in actions against the Company or such directors, officers or experts predicated upon the civil liability provisions of the United States federal securities laws or the securities or "blue sky" laws of any state or jurisdiction of the United States or (ii) would enforce, in original actions, liabilities against the Company or such directors, officers or experts predicated upon the United States federal securities laws or any securities or "blue sky" laws of any state or jurisdiction of the United States. In addition, the protections afforded by Canadian securities laws may not be available to investors in the United States.

The Company may lose foreign private issuer status in the future, which could result in significant additional costs and expenses.

The Company may in the future lose foreign private issuer status if a majority of the Common Shares are held in the United States and the Company fails to meet the additional requirements necessary to avoid loss of foreign private issuer status, such as if: (i) a majority of the Company's directors or executive officers are U.S. citizens or residents; (ii) a majority of the Company's assets are located in the United States; or (iii) the Company's business is administered principally in the United States. The regulatory and compliance costs to the Company under U.S. securities laws as a U.S. domestic issuer may be significantly more than the costs incurred as a foreign private issuer.

DISCLOSURE CONTROLS AND INTERNAL CONTROL OVER FINANCIAL REPORTING

The Company has implemented a system of internal controls that it believes adequately protects the assets of the Company and is appropriate for the nature of its business and the size of its operations. The internal control system was designed to provide reasonable assurance that all transactions are accurately recorded, that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS, and that our assets are safeguarded.

These internal controls include disclosure controls and procedures designed to ensure that information required to be disclosed by the Company is accumulated and communicated as appropriate to allow timely decisions regarding required disclosure.

Internal control over financial reporting means a process designed by or under the supervision of the Chief Executive Officer and the Chief Financial Officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS as issued by the IASB.

The internal controls are not expected to prevent and detect all misstatements due to error or fraud. There were no changes in our internal control over financial reporting that occurred during the year ended March 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

As of March 31, 2020, the Company's management has assessed the effectiveness of our internal control over financial reporting and disclosure controls and procedures using the Committee of Sponsoring Organizations of the Treadway Commission's 2013 framework. Based on their evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that these controls and procedures are effective.

OTHER MD&A REQUIREMENTS

Outstanding Share Data

As at the date of this report, the Company has the following securities outstanding:

	Number
Common shares	48,500,376
Warrants	7,363,764
Stock options	4,130,000
Total	**59,994,140**

For a detailed summary of the outstanding securities convertible into, exercisable or exchangeable for voting or equity securities of Medicenna as at March 31, 2020, refer to notes 8, 9, and 10 in the audited 2020 annual financial statements of the Company.

Additional information relating to the Company, including the Company's annual information form in respect of fiscal year 2020, is available under the Company's profile on SEDAR at www.sedar.com.