Management's Discussion and Analysis

For the Three and Nine Months Ended December 31, 2021

DATE OF REPORT: February 8, 2022

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following management's discussion and analysis ("MD&A") has been prepared as at February 8, 2022 for the three and nine months ended December 31, 2021 and should be read in conjunction with the unaudited interim condensed consolidated financial statements of Medicenna Therapeutics Corp. for the three and nine months ended December 31, 2021 and 2020, and the annual audited consolidated financial statements and accompanying notes for the years ended March 31, 2021 and 2020 (the "Annual Financial Statements"), which have been prepared by management in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). Our IFRS accounting policies are set out in note 2 of the Annual Financial Statements and all dollar amounts are expressed in Canadian dollars unless otherwise noted.

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

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;
- the potential impact of the COVID-19 pandemic and the efforts to mitigate it on our business;
- projected financial position and estimated cash burn rate, and the sufficiency of the Company's financial resources to support its activities;
- expected future loss and accumulated deficit levels;
- expectations about the timing of achieving milestones and the cost of the Company's development programs;
- observations and expectations regarding the clinical development, potential safety and effectiveness of the Superkine Platform, MDNA11, the BiSKITs™ Platform, MDNA55 and other product candidates and the potential benefits to patients;
- ability to secure strategic partnerships, including regarding MDNA55, with larger pharmaceutical and biotechnology companies;
- expectations regarding the progress, and the successful and timely completion, of the various stages of the regulatory approval and clearance processes;
- ability to initiate, progress, and successfully and timely complete various preclinical and manufacturing activities associated with future clinical trials and studies;
- expectations regarding the Company's ability to arrange for the manufacturing of the Company's products and technologies, if granted marketing authorization;
- expectations regarding the filing and acceptance and approval, if required of various submissions by regulatory agencies regarding the conduct of new clinical trials and studies;
- strategy to acquire and develop new product candidates and technologies and to enhance the potential safety and efficacy of existing product candidates and technologies;
- plans to market, sell and distribute the Company's products and technologies, if granted marketing authorization;

- expectations regarding the acceptance of the Company's products and technologies by the market, if granted marketing authorization;
- 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.

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 and the efforts to mitigate it and the ongoing and developing indirect global and regional economic impacts. The Company continues to experience uncertainty related to the on-going COVID-19 pandemic. The spread of COVID-19 and global measures to contain it and its variants, have had, and are anticipated to continue to have an impact on the Company, however it is challenging to quantify the potential future magnitude of such impact at this time. The Company is regularly assessing the situation and remains in contact with its partners, clinical sites and investigators, contract research organizations, contract development and manufacturing organizations and suppliers to assess any impacts and risks. The Company believes that ongoing COVID-19 restrictions could impact the planned clinical development timelines of the MDNA11 Phase 1/2a clinical trial including patient recruitment although it is not aware of any delays at this time.

All forward-looking statements reflect the Company's beliefs and assumptions based on information available at the time the assumption was made. In making the forward-looking statements included in this MD&A, the Company has made various material assumptions, including but not limited to (i) securing adequate and timely supply of its products candidates, including MDNA11, for clinical trials (ii) obtaining positive results from pre-clinical studies and clinical trials; (iii) obtaining regulatory approvals and clearances; (iv) general business and economic conditions; (v) the availability of financing on reasonable terms; (vi) the Company's ability to attract and retain skilled staff; (vii) market competition; (viii) the products and technology offered by the Company's competitors; (ix) the Company's ability to protect patents and proprietary rights; and (x) the effect of COVID-19 on the Company's business and operations. By its nature, forward-looking information involves numerous assumptions, inherent risks and uncertainties, both general and specific, known and unknown, that contribute to the possibility that the predictions, forecasts, projections or other forward-looking statements will not occur. Factors which could cause future outcomes to differ materially from those set forth in the forward-looking statements include, but are not limited to:

- the effect of continuing operating losses on the Company's ability to obtain, on satisfactory terms, or at all, the capital required to maintain the Company as a going concern;
- the ability to obtain sufficient and suitable financing to support operations, preclinical development, manufacturing, clinical trials of our product candidates, and commercialization of products, if granted marketing authorization;
- the risks associated with the development of novel compounds at early stages of development in the Company's intellectual property portfolio;
- the risks of reliance on third parties for the planning, conduct and monitoring of clinical trials and for the manufacture of our product candidates;
- the risks of reliance on third parties for timely completion of ongoing clinical trial activities, conduct of statistical analysis, imaging analysis, preparation of study reports and regulatory submissions;
- the risks associated with the development of the Company's product candidates including the demonstration of efficacy and safety;
- the risks related to clinical trials including potential delays, cost overruns and the failure to demonstrate efficacy and safety;
- the risks of delays and inability to complete clinical trials due to difficulties in securing Institutional Review Board (IRB) or ethics committee approval and enrolling subjects;

- the risks associated with the Company's inability to successfully develop companion diagnostics for the Company's development candidates;
- the risks associated with the Company's inability to successfully access or develop drug delivery technology or materials and components required for drug delivery;
- the risks associated with reliance on third parties for proper storage, packaging and shipment of active ingredients or other components required for preclinical or clinical trials;
- the risks associated with product loss or degradation or failure of manufacturing batches and not meeting specifications for use in preclinical or clinical trials;
- delays or negative outcomes from the regulatory approval and clearance processes;
- the Company's ability to successfully compete in the Company's targeted markets;
- the Company's ability to attract and retain key personnel, collaborators and advisors;
- the risks relating to the increase in operating costs from expanding existing programs, acquisition of additional development programs and increased staff;
- risk of negative results of clinical trials or adverse safety events by the Company or others related to the Company's product candidates;
- the potential for product liability claims;
- the Company's ability to achieve the Company's forecasted milestones and timelines on schedule;
- the financial risks related to the fluctuation of foreign currency rates and expenses denominated in foreign currencies;
- the Company's ability to adequately protect proprietary information and technology from competitors;
- risks related to changes in patent laws and their interpretations;
- the Company's ability to source and maintain licenses from third-party owners;
- the risk of patent-related litigation and the ability to protect trade secrets; and
- the Company's internal computer systems, or those used by its contractors or consultants, may fail or suffer security breaches.

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.

COMPANY OVERVIEW

The Company's principal business activity is the development and commercialization of Superkines and Empowered Superkines for the treatment of cancer, inflammation and immune-mediated diseases. Medicenna has five wholly owned subsidiaries, Medicenna Therapeutics Inc. (British Columbia), Medicenna Biopharma Inc. (Delaware), Medicenna Biopharma Inc. (British Columbia), Medicenna Australia PTY Ltd (Australia) ("MAL") and Medicenna Therapeutics UK Limited ("MTU"). On November 13, 2017, Medicenna continued under the *Canada Business Corporations Act*. On August 24, 2020, Medicenna began trading on the Nasdaq Capital Market ("NASDAQ") under the symbol "MDNA". On March 30, 2021, the Company set up it's subsidiary MAL and on April 15, 2021 the Company set up its wholly owned subsidiary MTU.

Medicenna is an immunotherapy 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 Superkines that precisely deliver potent payloads to cancer cells without harming adjacent healthy cells. Superkines can also be fused with a large variety of proteins, antibodies and even other Superkines in order to incorporate two synergistic therapeutic activities into one molecule, creating novel Bi-Functional SuperKine ImmunoTherapies referred to by Medicenna as BiSKITs™.

Medicenna's mission is to become the leader in the development and commercialization of Superkines, Empowered Superkines and BiSKITs™ for the treatment of a broad range of cancers and other diseases. The Company seeks to achieve its goals by drawing on its expertise, and that of world-class collaborators and advisors, in order to develop Revolutionary Medicines using Evolutionary Superkines. Compared to naturally occurring cytokines – that bind to multiple receptors on many cell types – Superkines are engineered with unique selectivity toward specific receptor subtypes and defined target cell subsets in order to precisely activate or inhibit relevant signalling pathways or immune cells in order to improve therapeutic efficacy and safety.

Medicenna has built a deep pipeline of 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 which is the only genetically engineered IL-2 Superkine designed to specifically bind to CD122 (IL-2Rβ) with high affinity. To further enhance its selectivity, 2 additional mutations (FEAA) were incorporated in MDNA109 to abolish binding to CD25. However, as in the case of recombinant human IL-2 (rhIL-2), marketed as Proleukin®, MDNA109 has a similar size and therefore is associated with poor pharmacokinetic ("PK") properties resulting in a short half-life which would require an inconvenient daily dosing regimen for cancer patients. To address this issue, Medicenna fused MDNA109 variants to inactive protein scaffolds such as Fc (MDNA19) or human albumin (MDNA11), effectively increasing the size of the Superkine and improving its half-life.

Thus unlike Proleukin®, both MDNA11 and MDNA19, have superior PK properties, lack CD25 binding in order to improve safety and reduce immune suppression, potently stimulate effector T cells, reverse natural killer ("NK") cell exhaustion and act with exceptional synergy when combined with checkpoint inhibitors.

Although MDNA19 was initially identified as the Company's lead IL-2 candidate, a pilot non-human primate ("NHP") study comparing MDNA11 with MDNA19 demostrated that the former had better PK and pharmacodynamic ("PD") features. Medicenna is therefore advancing the clinical development of MDNA11 as it is a more promising molecule and has been selected as the lead IL-2 Superkine candidate. Medicenna initiated the Phase 1/2 ABILITY Study (A Beta-only IL-2 ImmunoTherapY Study) with MDNA11 (the "ABILITY Study") in the third calendar quarter of 2021. MDNA19 remains relevant for Medicenna as it provides unique design features in the development of our BiSKITs™ platform.

Our BiSKITs™ platform allows us to develop designer Superkines by fusing them to other proteins, antibodies, cytokines or other Superkines in order to incorporate two distinct but synergistic functions into one molecule: a BiSKIT™. Medicenna plans to announce data from its Superkine and BiSKIT™ platform at a conference in the first half of calendar 2022.

Complementing our Superkine platform is MDNA55, Medicenna's Empowered Superkine, 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"), and is designed to preferentially target tumor cells that over-express the interleukin 4 receptor ("IL-4R"). MDNA55 has been studied in 5 clinical trials in 132 patients, including 112 patients with rGBM, the results of which support our belief that it has superior efficacy when compared to the current standard of care ("SOC"). 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. We continue to pursue a strategic partnership to facilitate MDNA55's further development and commercialization.

ACHIVEMENTS & HIGHLIGHTS

The following are the achievements and highlights for the quarter ended December 31, 2021 through to the date hereof:

- On October 7, 2021, Medicenna announced the presentation of new preclinical data from its MDNA11 program in a virtual poster session at the AACR-NCI-EORTC Virtual International Conference on Molecular Targets and Cancer Therapeutics (the "Triple Conference"). Data presented in the poster and corresponding abstract were from murine studies evaluating the anti-tumor activity of MDNA11 as monotherapy and in combination with anti-PD1 checkpoint inhibition in MC38 tumor model and NHP studies evaluating safety, PK and PD of MDNA11.
- On October 27, 2021, Medicenna announced that the FDA was allowing it to proceed with the ABILITY Study and begin enrolling patients in the United States under its Investigational New Drug ("IND") application. Subsequent to the quarter end, enrolment opened at the first clinical site in the USA.
- On November 18, 2021, Medicenna announced that John H. Sampson, MD, PhD, MHSc, MBA, Robert H. and Gloria Wilkins Distinguished Professor of Neurosurgery at Duke University School of Medicine and member of Medicenna's Board of Directors, received The Abstract Award for Excellence in Clinical Trials in connection with an oral presentation on MDNA55, which was delivered by Dr. Sampson at the 26th Annual Meeting of the Society for Neuro-Oncology (SNO).
- On December 17, 2021, Medicenna announced that Health Canada had approved the expansion of the Phase 1/2 ABILITY study of MDNA11 to clinical trial sites in Canada.
- On December 22, 2021, Medicenna announced preliminary data from the Phase 1/2 ABILITY study of MDNA11, the Company's selective, long-acting and novel IL-2 super-agonist. Key findings from the ABILITY study's first two dose escalation cohorts, which evaluated MDNA11 monotherapy in patients with advanced malignancies and administered intravenously once every two weeks, include the following:
    - CD8+ T and NK cell levels increased by ~2 fold over baseline with MDNA11 treatment at doses where competing "not-alpha" IL-2 variants have not demonstrated any activity;
    - MDNA11 preferentially increased anti-cancer CD8+ T cells over pro-tumor Treg cells, as the CD8+ T / Treg ratio increased by ~2-3 fold over baseline; and
    - MDNA11 was well tolerated. No dose limiting toxicities, or any evidence of cytokine release syndrome, or evidence of vascular leak syndrome had been reported as at such date.
- Subsequent to the quarter end, on January 17, 2022, Medicenna announced that Mann Muhsin had resigned as Chief Medical Officer of the Company and that Martin Bexon, MBBS, will serve as Acting Chief Medical Officer in addition to his current role as the Medical Monitor for the Phase 1/2 ABILITY study. Medicenna also announced the appointment of industry veterans to its Development Advisory Committee, including Mr. Paul Smith, Dr. Bruce Pearce, and Dr. Peter Lloyd who have been instrumental in supporting MDNA11's pre-clinical safety, PK/PD studies, international regulatory filings and designing the Phase 1/2 ABILITY study.
- Subsequent to the quarter end, on January 26, 2022, Medicenna announced the peer-reviewed publication of preclinical data on MDNA11 entitled "Fine-tuned Long-Acting Interleukin-2 Superkine Potentiates Durable Immune Responses in Mice and Non-Human Primate" published in the Journal for ImmunoTherapy of Cancer.
- Subsequent to the quarter end, Medicenna announced the formation of its Scientific Advisory Board (SAB). The SAB consists of four highly accomplished leaders in cancer immunotherapy and drug development: Sergio Quezada, Ph.D. (Chairman), Burkhard Becher, Ph.D., David Mooney, Ph.D., and William Redmond, Ph.D.

FINANCING UPDATE

Nine months ended December 31, 2021

On December 30, 2020, the Company entered into an at-the-market ("ATM") agreement with SVB Leerink acting as sales agent (the "ATM Agreement"), pursuant to which the Company may, from time to time sell, through ATM offerings, on the NASDAQ such number of common shares as would have an aggregate offering price of up to US$25.0 million (the "ATM Facility"). The ATM Facility will remain in place until the earlier of the maximum number of shares being sold, August 28, 2022 or the ATM Agreement being terminated. Total costs associated with the offering are recorded as a reduction in share capital when common shares are issued, net of gross proceeds received in the same period. During the first nine months of fiscal 2022, 1,671,995 common shares raising total gross proceeds of $3.7 million (US$2.9 million) were

sold under the ATM Facility. As at December 31, 2021, there was approximately $20.3 million (US$16.3 million) available to use under the ATM Facility.

During the nine months ended December 31, 2021, 266,290 warrants were exercised for proceeds of $0.4 million, the details of which are described below:

Number of Warrants	Exercise Price	Proceeds	Expiry Date
	$	$	
50,000	1.20	60,000	December 21, 2023
71,744	1.30	93,267	October 17, 2021
144,546	1.75	252,955	October 17, 2022
266,290		**406,222**	

Nine months ended December 31, 2020

On April 15, 2020, the Company closed 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 its public offering of common shares initially closed on March 17, 2020 (the "2020 Public Offering"). As a result of the exercise of this over-allotment option, Medicenna received additional gross proceeds of $5.3 million, for total gross proceeds of $40.25 million, which is being used to fund further development of MDNA11, including preclinical activities, manufacturing and Phase 1/2a clinical trials, as well as for general corporate purposes and working capital.

During the nine months ended December 31, 2020, 1,962,824 warrants were exercised for proceeds of $3.8 million.

RESEARCH & DEVELOPMENT UPDATE

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 (MDNA11) 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.

Like the MDNA109 platform, MDNA209 therapeutics bind with exceptional affinity to IL-2Rβ, but have varying degrees of reduced affinity towards the common IL-2γ receptor which in turn results in partial or complete blockade of signaling and activation of NK cells and effector CD8 T cells. Therefore, the 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. We believe MDNA209 variants can 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 candidates have been initiated but development timelines have not been established at this time.

MDNA11

MDNA109 (a precursor to MDNA19 and MDNA11) is an enhanced version of IL-2 that binds up to 200 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 preferentially 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 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 candidates in development, MDNA19 and MDNA11 of which MDNA11 has been selected as the lead candidate for clinical development.

On June 23, 2021, we announced that we had submitted a clinical trial application to a Human Research Ethics Committee in Australia to initiate a Phase 1/2 clinical study of MDNA11. Medicenna's Phase 1/2 ABILITY Study is designed to assess the safety, PK, PD, and anti-tumor activity of various doses MDNA11 administered intravenously every 2 weeks, in patients with advanced solid tumors. The basket, dose finding study includes a dose escalation phase followed by a dose expansion phase with both an MDNA11 monotherapy arm as well as a combination arm designed to evaluate MDNA11 with a checkpoint inhibitor. The study will include patients with melanoma and renal cell carcinoma where Proleukin® is known to have clinical activity, as well as cluster of other tumor types in order to fully explore the pan-tumor potential of MDNA11. The study also permits alternative dosing schedules, as well as options for intra-patient dose escalation.

On September 14, 2021, Medicenna announced that it had dosed the first patient in the Phase 1/2 ABILITY Study.

On September 20, 2021, Medicenna announced that the United States Patent and Trademark Office issued U.S. Patent No. 11,117,943, titled "Superagonists and Antagonists of Interleukin-2." The patent provides intellectual property protection for methods of treating a wide range of cancers specified in the claims with IL-2 variants such as MDNA11, which is Medicenna's selective, long-acting and novel IL-2 super-agonist. The patent's term extends into at least 2032, without accounting for any potential extensions.

On October 7, 2021, Medicenna announced the presentation of new MDNA11 preclinical data at the Triple Conference. Data presented in the poster and corresponding abstract were from murine studies evaluating the anti-tumor activity of MDNA11 as monotherapy and in combination with anti-PD1 checkpoint inhibition in MC38 colon cancer model and NHP studies evaluating safety, PK, and PD of MDNA11.

Key data and conclusions presented include:

NHP studies:

- Dose proportional increases in exposure as measured by both C_{max} and area under the curve were observed with increasing doses of MDNA11.
- Serum levels of MDNA11 generally were near or reached the lower limit of quantification within 4-5 days after dosing, with PD effects lasting more than 7 days after dosing.
- MDNA11 preferentially induced durable proliferation and expansion of anti-cancer immune effector cells (non-Treg $CD4^+$ T-cells, $CD8^+$ T-cells and NK cells), with limited stimulation of pro-tumor Treg cells.
- MDNA11 was well tolerated. No signs of cytokine release syndrome or anti-drug antibodies were observed at any dose level. No clinical or histological evidence of pulmonary edema or vascular leak syndrome was observed at any dose level.
- The main safety observations were loss of appetite, reduced activity, and diarrhea, which was observed at the highest dose level and were also transient in nature.

Murine studies

- Treatment with MDNA11 alone or in combination with anti-PD-1 therapy led to tumor growth inhibition and durable complete responses in a murine MC38 tumor model even though tumor growth was not inhibited by anti-PD-1 monotherapy.
- Initial treatment with MDNA11 alone or in combination with anti-PD-1 protected against subsequent tumor re-challenge by inducing long-term, antigen-specific CD8+ T-cells.

On October 27, 2021, Medicenna announced that the FDA allowed it to proceed with the Phase 1/2 ABILITY Study and begin enrolling patients in the United States under its IND.

On December 17, 2021, Medicenna announced that Health Canada approved the expansion of the Phase 1/2 ABILITY study of MDNA11 to clinical trial sites in Canada.

On December 22, 2021, Medicenna announced preliminary data from the Phase 1/2 ABILITY (study of MDNA11, the Company's selective, long-acting and novel IL-2 super-agonist).

Key findings from the Phase 1/2 ABILITY study's first two dose escalation cohorts, which evaluated MDNA11 monotherapy in patients with advanced malignancies and administered intravenously once every two weeks, include the following:

- CD8+ T and NK cell levels increased by ~2 fold over baseline with MDNA11 treatment at doses where competing "not-alpha" IL-2 variants have not demonstrated any activity.
- MDNA11 preferentially increased anti-cancer CD8+ T cells over pro-tumor Treg cells, as the CD8+ T / Treg ratio increased by ~2-3 fold over baseline.
- MDNA11 was well tolerated. No dose limiting toxicities, or any evidence of cytokine release syndrome, or evidence of vascular leak syndrome has been reported to date.

Subsequent to the quarter end, on January 26, 2022, Medicenna announced the peer-reviewed publication of preclinical data on MDNA11. The paper, which was published in the Journal for ImmunoTherapy of Cancer, is entitled, "Fine-tuned Long-Acting Interleukin-2 Superkine Potentiates Durable Immune Responses in Mice and Non-Human Primate."

Key data and conclusions from the paper include:

In vitro studies:

- MDNA11 demonstrated a 30-fold increase in binding affinity for IL-2Rβ compared to rhIL-2 (MDNA11 K_D = 6.6 ± 0.1 nM; rhIL-2 K_D = 210 ± 30 nM).
- MDNA11 showed no affinity for IL-2Rα at concentrations up to 2,000 nM MDNA11.
- MDNA11 showed enhanced signaling in anti-cancer T and NK cells and reduced activation of pro-tumor Treg cells when compared to rhIL-2 as shown by 231-fold and 124-fold enhancements in $CD8^+$/Treg and NK/Treg pSTAT EC_{50} ratios, respectively.

Murine studies:

- The terminal half-life of MDNA11 in mice was 25 times greater than that of rhIL-2.
- Cell depletion studies showed that both, $CD8^+$ T cells and NK cells are important for MDNA11 mediated anti-tumor efficacy.
- There was enhanced activation of $CD8^+$ T cells within the tumors as demonstrated by significant increase in expression of intracellular interferon γ.
- MDNA11 alone or in combination with checkpoint inhibitors generated durable complete responses and provided long-term protection against tumor re-challenge in murine cancer models.

NHP studies:

- MDNA11 preferentially induced durable proliferation and expansion of anti-cancer immune effector cells ($CD8^+$ T-cells, NK cells and non-Treg $CD4^+$ T-cells), with limited stimulation of pro-tumor Treg cells.
- Proliferation of anti-cancer immune effector cells remained elevated for at least 7 days following treatment with MDNA11.
- MDNA11 was well tolerated. The main safety observations of reduced activity and diarrhea were primarily observed at the highest dose level following the first dose and were generally transient in nature.

BiSKITs™ (Bi-functional SuperKine ImmunoTherapies) Platform

Our BiSKITs™ platform allows us to develop designer Superkines by fusing them to other proteins, antibodies, cytokines or other Superkines in order to combine two distinct but synergistic functions into one molecule: a BiSKIT™. Medicenna plans to announce data on its lead BiSKIT™ candidate at a conference in the first half of calendar 2022.

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. As part of our BiSKITs™ platform, MDNA413 has been fused with MDNA19 (a long acting Fc-IL2 Superkine) and was the basis of data presented at 2021 American Association for Cancer Research (AACR) Annual Meeting as described below.

On April 12, 2021, we announced new preclinical data demonstrating the immune modulatory effects of MDNA19-413, an IL-2/IL-13 dual specific cytokine derived from the Company's BiSKITsTM platform. The data were featured in a poster presentation at the 2021 AACR Annual Meeting. Data presented in the poster suggest that this molecule simultaneously activates a pro-inflammatory anti-tumor response, due to its highly selective binding and signaling via the intermediate affinity IL-2 receptor (CD122/CD132), while inhibiting pro-tumoral immune pathways by blocking IL4/IL13 signaling via the Type 2 IL-4 receptor (IL-4Rα/IL-13Rα1). We believe that MDNA19-413's ability to simultaneously facilitate IL-2 activity while blocking IL-4/IL-13 signaling has the potential to address a significant unmet medical need for effective therapies against immunologically cold tumors which are often resistant to checkpoint inhibitors and other immunotherapeutic agents due to their immunosuppressive TME.

Medicenna is currently screening and optimizing a variety of IL-2/IL-4/IL-13 superkines as part of our BiSKITs™ platform and intends to present additional data in the first half of calendar 2022.

MDNA55

MDNA55 has been studied in 5 clinical trials in 132 patients, including 112 patients with rGBM, suggesting potentially superior efficacy when compared to the current SOC. The Company has secured Orphan Drug Status from the FDA and the EMA as well as Fast Track Designation from the FDA.

MDNA55 is delivered locally to the site of the tumor using convection enhanced delivery ("CED") technology, a drug delivery technique for localized administration of MDNA55 into brain tumors. Medicenna has obtained an exclusive license from the National Institutes of Health ("NIH") to patents covering CED.

A Phase 2b clinical trial with MDNA55 was completed in a multi-center, open-label, single-arm study in patients with first or second recurrence or progression of GBM after surgery or radiotherapy ± adjuvant therapy or other experimental therapies.

On September 29, 2020, Medicenna had an End of Phase 2 (EOP2) meeting with the FDA to discuss future development and commercialization of MDNA55 for rGBM. On October 15, 2020, we announced positive outcomes following the EOP2 meeting with the FDA. The FDA agreed that we could conduct an innovative open-label hybrid Phase 3 trial that allows use of a substantial number of patients (two-thirds) from a matched external control arm (ECA) to support marketing authorization of MDNA55 for rGBM. The proposed Phase 3 clinical trial design includes a concurrent 3:1 randomized cohort (3 subjects receiving MDNA55 for every 1 subject receiving SOC) and an additional matched ECA. The primary endpoint of overall survival (OS) will be determined by a 1:1 analysis of the MDNA55 arm versus the pooled control arm, which will consist of ECA and subjects randomized to SOC. This hybrid trial design will also reduce the overall number of subjects needed to enroll in the study to achieve the primary endpoint, and notably reduce the number of subjects that would be randomized to SOC treatment under a conventional 1:1 randomization. By reducing the need to enroll control subjects, an ECA can increase efficiency, reduce delays, lower trial costs, and speed lifesaving therapies to market. The Company demonstrated promising results for MDNA55 in a Phase 2b clinical trial when compared to a retrospective and a well-balanced ECA. Medicenna is pursuing strategic partnerships to assist with additional clinical development of MDNA55, as well as preparing the program for commercialization and its subsequent launch in various countries where marketing authorization has been granted. In addition to development and marketing authorization of MDNA55, see "Risk and Uncertainties" below.

On May 7, 2021, Medicenna announced the peer-reviewed publication of clinical data from the MDNA55 Phase 2b rGBM trial in Clinical Cancer Research. The paper, entitled "Modified RANO, Immunotherapy RANO, and Standard RANO Response to Convection-enhanced Delivery of IL4R-targeted Immunotoxin MDNA55 in Recurrent Glioblastoma," was published in collaboration with researchers at several institutions including University of California Los Angeles and Duke University.

Results presented in the peer-reviewed paper show that the median overall survival (OS) of radiographically evaluable patients in the trial irrespective of dose or IL4R expression was 11.8 months, which is longer than

what would be expected from currently approved drugs. Notably, the data also show a potential link between patients experiencing radiographic progression and those exhibiting insufficient MDNA55 penetration into the tumor, suggesting that at least a portion of patients who did not respond well to MDNA55 may have benefited from higher drug concentrations.

These analyses supplement previously presented findings observed in Medicenna's proposed patient population showing an 81% tumor control rate (26/32) based on mRANO and a median OS of 15.7 months, which represents a >100% improvement compared to an external control arm (median OS of 7.2 months). The proposed patient population included all MDNA55-treated trial participants with high IL4R expression and participants with low IL4R expression that received a high dose of MDNA55 treatment.

In September 2021, Dr. Fahar Merchant, President and Chief Executive Officer, co-authored an article related to MDNA55 published in Lancet Oncology titled "Leveraging external data in the design and analysis of clinical trials in neuro-oncology."

On October 2, 2021, Medicenna participated in the Virtual SNO/ASCO Conference on CNS Clinical Trials through an Oral Presentation titled: "Incorporating external control arm in MDNA55 recurrent glioblastoma registration trial."

On November 18, 2021, Medicenna announced that John H. Sampson, MD, PhD, MHSc, MBA, Robert H. and Gloria Wilkins Distinguished Professor of Neurosurgery at Duke University School of Medicine and member of Medicenna's Board of Directors, received The Abstract Award for Excellence in Clinical Trials in connection with an oral presentation on MDNA55. The presentation was delivered by Dr. Sampson at the 26th Annual Meeting of the Society for Neuro-Oncology.

SELECTED FINANCIAL INFORMATION

All tabular amounts below are presented in thousands of Canadian dollars, except for per share amounts.

	Three months ended December 31,		**Nine months ended December 31,**	
	2021	2020	**2021**	2020
	$	$	**$**	$
General and Administration	**1,990**	2,093	**5,821**	4,516
Research and Development	**2,907**	3,180	**13,525**	7,169
Net Loss	**(4,807)**	(5,338)	**(19,371)**	(11,475)
Basic and Diluted Loss per Share	**(0.09)**	(0.11)	**(0.36)**	(0.24)
Total Assets	**26,107**	36,323	**26,107**	36,323
Total Liabilities	**2,351**	2,216	**2,351**	2,216

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

For the three months ended December 31, 2021, we reported a net loss of $4.8 million ($0.09 loss per share), compared to a net loss of $5.3 million ($0.11 loss per share) for the three months ended December 31, 2020. The decrease in net loss for the three month period ended December 31, 2021, compared with the three month period ended December 31, 2020, was primarily a result of decreased research and development expenditures due to reduced chemistry, manufacturing and controls (CMC) costs, associated with the first scale-up of good laboratory practices ("GLP") and good manufacturing practices ("GMP") for production of MDNA11 required to supply adequate drug product for IND-enabling studies and Phase 1/2 ABILITY clinical trial, which was pre-dominantly completed as of September 30, 2021.

For the nine months ended December 31, 2021, we reported a net loss of $19.4 million ($0.36 loss per share), compared to a net loss of $11.5 million ($0.24 loss per share) for the nine months ended December 31, 2020. The increase in net loss for the nine month period ended December 31, 2021, compared with the nine month period ended December 31, 2020, was primarily a result of increased research and development expenditures related to the MDNA11 program, including GMP manufacturing and IND-enabling studies, as well as costs associated with the NASDAQ listing (completed in Q2 of fiscal 2021), in particular directors and officers insurance in the current year period. There was a reimbursement of $1.8 million under the grant from the Cancer Prevention Research Institute of Texas ("CPRIT") in the current nine month period ended December 31, 2021 which reduced R&D expenditures in the current year period (2020 - $nil).

Cash utilized in operating activities for the nine months ended December 31, 2021 was $20.7 million, compared to cash utilized in operating activities for the nine months ended December 31, 2020 of $13.2 million. The increase in cash utilized in the current year period is primarily the result of increased research and development expenses, offset by the receipt of $1.8 million from the CPRIT grant.

RESULTS OF OPERATIONS FOR THE THREE AND NINE MONTHS ENDED DECEMBER 31, 2021

Research and Development ("R&D") Expenses

	Three months ended December 31,		Nine months ended December 31,	
	2021	2020	**2021**	2020
	$	$	**$**	$
Chemistry, manufacturing and controls	**173**	528	**6,588**	1,558
Regulatory	**69**	251	**458**	599
Discovery and pre-clinical	**522**	861	**2,822**	1,574
Clinical	**934**	271	**1,956**	999
Salaries and benefits	**751**	462	**2,061**	982
Licensing, patent legal fees and royalties	**255**	664	**783**	1,080
Stock based compensation	**194**	104	**511**	283
CPRIT grant claimed on eligible expenses	**-**	-	**(1,753)**	-
Other research and development expenses	**9**	39	**99**	94
	2,907	3,180	**13,525**	7,169

R&D expenses of $2.9 million and $13.5 million were incurred during the three months and nine months ended December 31, 2021, compared with $3.2 million and $7.2 million incurred in the three and nine months ended December 31, 2020.

The increase in R&D expenses during the nine months ended December 31, 2021 is primarily attributable to:

- One-time higher chemistry, manufacturing and controls costs ("CMC"), associated with the first scale-up GLP and GMP manufacturing of MDNA11 required to supply adequate drug product for IND-enabling studies and the Phase 1/2 ABILITY clinical trial, predominantly complete as of September 30, 2021.
- Increased discovery and pre-clinical expenses associated with the one-time GLP compliant MDNA11 IND-enabling studies, which were complete as of September 30, 2021, as well as discovery work on the BiSKITs™ platform in the current year period.
- Increased clinical costs due to activities associated with the initiation of the MDNA11 Phase 1/2 ABILITY study. Prior year activity was related to close-out of the MDNA55 Phase 2b clinical program.
- Higher salary and benefits costs associated with a higher headcount necessary to support increased activities. Higher stock based compensation associated with C-level executives.

The above increases were partially offset by reimbursement of expenses with respect to the CPRIT grant of $1.8 million in the nine month period ended December 31, 2021, compared with $nil in the nine month period ended December 31, 2020.

The decrease in R&D expenses during the three months ended December 31, 2021 is primarily attributable to:

- CMC costs associated with the GLP and GMP manufacturing of MDNA11 was ongoing in the prior year and predominantly complete as of September 30, 2021, resulting in significant decrease compared to prior year quarter.
- Decreased discovery and pre-clinical expenses associated with the one-time GLP compliant MDNA11 IND-enabling studies ongoing in the prior year period and predominantly complete as of September 30, 2021.
- Decreased spending on licensing and patent legal fees in the current year period due to expenses incurred in the prior year period related to MDNA55 market research activities and the timing of patent prosecution.
- Decrease in regulatory costs in the current year period due to expenses incurred in the prior year period associated with the EOP2 meeting for MDNA55.

The above decreases were partially offset by increased clinical costs in the current year period due to the initiation of the MDNA11 ABILITY study for which the first patient was dosed in September 2021.

General and Administrative ("G&A") Expenses

	Three months ended December 31,		**Nine months ended December 31,**	
	2021	2020	**2021**	2020
	$	$	**$**	$
Depreciation expense	**10**	10	**30**	30
Stock based compensation	**232**	240	**676**	464
Facilities and operations	**109**	92	**291**	225
Public company expenses	**1,351**	1,419	**4,116**	3,201
Salaries and benefits	**288**	332	**708**	596
	1,990	2,093	**5,821**	4,516

G&A expenses of $2.0 million and $5.8 million were incurred during the three and nine months ended December 31, 2021, compared with $2.1 million and $4.5 million during the three and nine month periods ended December 31, 2020.

The increase in G&A expenditures in the nine month period ended December 31, 2021 is primarily attributed to increased directors and officers liability insurance premiums due to nine months of expense in the current year period compared with five months of expense in the prior year period. Salaries and benefit expenses increased in the nine month period due to increased headcount to support ongoing operations.

The decease in G&A expenditure in the three month period ended December 31, 2021 primarily relates to a decrease in public company expenses, as there were higher legal costs associated with the initial NASDAQ listing in the prior year quarter.

SUMMARY OF QUARTERLY FINANCIAL RESULTS

	Dec. 31 2021	Sep. 30 2021	Jun. 30 2021	Mar. 31 2021	Dec. 31 2020	Sept. 30 2020	June 30 2020	Mar. 31 2020
	$	$	$	$	$	$	$	$
Revenue	-	-	-	-	-	-	-	-
General and administration	1,990	1,964	1,867	2,009	2,093	1,691	732	529
Research and development	2,907	6,269	4,349	3,701	3,180	2,176	1,813	2,135
Net loss	(4,807)	(8,178)	(6,386)	(5,813)	(5,338)	(3,786)	(2,352)	(2,689)
Basic and diluted loss per share	(0.09)	(0.15)	(0.12)	(0.11)	(0.11)	(0.08)	(0.05)	(0.07)
Total assets	26,107	30,093	37,336	42,252	36,323	37,640	40,920	37,996
Total liabilities	2,351	5,431	4,958	4,107	2,216	1,656	1,547	1,847

R&D expenses fluctuate quarter over quarter based on activites ongoing during that period. During the quarter ended June 30, 2021 there was a $1.8 million reimbursement received from CPRIT which offset increased R&D expenses, primarily due to manufacturing and pre-clinical costs associated with MDNA11. The increase in expenditures from the quarter ended September 30, 2020 onwards, is primarily related to activities associated with the MDNA11 program and establishment of the BiSKITs™ program. One-time higher CMC costs, associated with the scale-up GLP and GMP manufacturing of MDNA11 was completed in the quarter ended September 30, 2021, resulting in a decrease in R&D expenses in the quarter ended December 31, 2021.

G&A expenses began to increase in the quarter ended September 30, 2020, due to costs associated with completing the NASDAQ listing and an associated increase in directors and officers insurance premiums. The increased insurance premiums began in Q2 2020 and as such G&A expenses increased further in the subsequent quarters for a full 3 months of amortization rather than 2 months amortization in the quarter ended September 30, 2020.

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 $67.7 million as of December 31, 2021. 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 product 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 MDNA55, MDNA11 and the BiSKITs™ platform 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.

The accompanying interim condensed consolidated financial statements have been prepared on a going concern basis in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). The going concern basis contemplates the realization of assets and the settlement of liabilities in the normal course of business as they come due for the foreseeable future. Management has forecasted that the Company's current level of cash is expected to be able to fund operations through Q4 of fiscal 2023. The Company is actively pursuing additional financing to further develop certain of the Company's scientific initiatives, but there is no assurance these initiatives will be

successful, timely or sufficient. Consequently, the Company's ability to continue as a going concern beyond the Q4 of fiscal 2023 is dependent on its ability to secure additional financing. These circumstances cast significant doubt as to the ability of the Company to continue as a going concern and, hence, the appropriateness of the use of accounting principles applicable to a going concern.

These financial statements do not reflect the adjustments to the carrying values of assets and liabilities and the reported expenses and balance sheet classifications that would be necessary if the Company were unable to realize its assets and settle its liabilities as a going concern in the normal course of operations. Such adjustments could be material.

CASH POSITION

At December 31, 2021, we had a cash, cash equivalents and marketable securities balance of $23.4 million, compared to $40.4 million at March 31, 2021. We invest cash in excess of current operational requirements in highly rated and liquid instruments. Working capital at December 31, 2021 was $23.7 million (March 31, 2021 - $38.0 million).

On December 30, 2020, we announced that we entered into the ATM Agreement with SVB Leerink acting as sales agent for our ATM offering of up to US$25.0 million. We plan to use the net proceeds of the ATM Facility for general corporate purposes including, but not limited to working capital expenditures, research and development expenditures, and clinical trial expenditures. As of December 31, 2021, a total of 3,070,352 common shares have been sold under the ATM Facility for total gross proceeds of $10.8 million (US$8.7 million). As of December 31, 2021, approximately $20.3 million (US$16.3 million) remained available under the ATM Facility.

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 marketing authorization to commercialize any of our product candidates 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 the CPRIT whereby the Company was eligible to receive up to US$14.1 million on eligible expenditures over a three-year period related to the development of the Company's phase 2b clinical program for MDNA55. As of December 31, 2021, the grant with CPRIT is complete.

Of the US$14.1 million grant approved by CPRIT, Medicenna received US$14.1 million from CPRIT as at December 31, 2021. Amounts received in the current year (US$1.1 million) were recorded as a reduction in research and development expenses in the nine months period ended December 31, 2021 (See note 9 in the interim condensed consolidated financial statements of the Company).

Under the terms of the grant, the Company is 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%. At this time the royalty is not probable and therefore no liability has been recorded. In addition, the Company must maintain a presence in Texas for three years following completion of the grant.

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 these licensing agreements, the Company issued 649,999 common shares with a value of $0.1 million 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 December 31, 2021, the Company's intangible assets have a remaining capitalized net book value of $0.07 million.

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 December 31, 2021, the Company is obligated to pay the following:

- Patent licensing costs due within 12 months totaling $190 thousand.
- Patent licensing costs, including the above, due within the next five years totaling $1.6 million.
- Given the current development plans and expected timelines of the Company it is assumed that project milestones of US$0.3 million will be due in the next five years.
- Project milestone payments, assuming continued success in the development programs, of uncertain timing totaling US$2.0 million and an additional US$2.0 million in sales milestones.
- A liquidity payment of $331 thousand, 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.

Future commitments

As of December 31, 2021, 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	$ 190	$ 862	$ 583	$ 1,635
Lease payments	$ 13	$ -	$ -	$ 13
Liquidity event payment	$ 331	$ -	$ -	$ 331

The Company cannot reasonably estimate future royalties which may be due upon the marketing authorization of MDNA55 or MDNA11.

As at the date of this report, we 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 $13.8 million, of which $10.8 million has been paid or accrued at December 31, 2021. 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, Ms. Rosemina Merchant, Chief Development Officer, Dr. Mann Muhsin, former Chief Medical Officer, and Dr. Kevin Moulder, Chief Scientific Officer) and directors, received the following compensation for the following periods:

	Three months ended December 31,		Nine months ended December 31,	
	2021	2020	**2021**	2020
	$	$	**$**	$
Salaries and wages	**511**	518	**1,272**	1,006
Board fees	**77**	106	**217**	171
Stock option expense	**349**	313	**895**	635
	937	937	**2,384**	1,812

As at December 31, 2021, the Company had trade and other payables in the normal course of business, owing to directors and officers of $0.1 million (2020: $0.1 million) related to accrued bonuses, board fees and accrued vacation.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The significant accounting policies of the Company are described in note 2 of the audited consolidated financial statements for the year ended March 31, 2021 and available on SEDAR (www.sedar.com) and EDGAR at www.sec.gov.

Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The determination of estimates requires the exercise of judgement based on various assumptions and other factors such as historical experience and current and expected economic conditions. Actual results could differ from those estimates. Critical judgements in applying the Company's accounting policies are detailed in the Annual Financial Statements, filed on SEDAR (www.sedar.com) and EDGAR at www.sec.gov.

FINANCIAL INSTRUMENTS

(a) Fair value

We recognize financial instruments on the consolidated statements of financial position, which 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).

We classify our 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, prepaids and deposits are measured at amortized cost less impairments.

Accounts payable, accrued liabilities are measured at amortized cost.

We have exposure to the following risks from our use of financial instruments: credit, interest rate, currency and liquidity risk. We review our 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.

We attempt 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. We believe our 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. We currently settle all of our financial obligations out of cash. The ability to do so relies on maintaining sufficient cash in excess of anticipated needs. As at Decmber 31, 2021, 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 a $0.7 million (December 31, 2020 - $0.5 million) increase or decrease in loss and comprehensive loss for the three months ended December 31, 2021.

Balances in thousands of US dollars are as follows:

	December 31, 2021	March 31, 2021
	US$	US$
Cash and cash equivalents	**6,551**	9,593
Accounts payable and accrued liabilities	**(1,298)**	(2,147)
	5,253	7,446

(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 period. The Company is not subject to any externally imposed capital requirements.

2020 PUBLIC OFFERING AND USE OF PROCEEDS

The following table provides an update on the anticipated use of proceeds raised in the 2020 Public Offering along with amounts actually expended. Following completion of the 2020 Public Offering, Medicenna selected MDNA11 as its lead IL-2 candidate over MDNA19 to progress to the clinic and, as such, proceeds from the 2020 Public Offering, which were initially allocated to the development of MDNA19, have been re-directed to the development of MDNA11 in the same proportions As of December 31, 2021, the following expenditures have been incurred (in thousands of Canadian dollars):

Item	Amount to Spend	Spent to Date	Adjustments	Remaining to Spend
Preclinical development	$ 3,300	$ 3,300	–	–
Manufacturing of clinical batch	$ 4,400	$ 4,400	–	–
Clinical development	$ 13,150	$ 3,491	–	$ 9,659
General corporate and working capital purposes	$ 11,350	$ 10,738	–	$ 612
Total	**$ 32,200**	**$ 21,929**	**$ –**	**$ 10,271**

ATM FACILITY

On December 30, 2020, the Company entered into the ATM Agreement with SVB Leerink acting as sales agent, pursuant to which the Company may, from time to time sell, through ATM offerings, on the NASDAQ such number of common shares as would have an aggregate offering price of up to US$25.0 million. During the nine month period ended December 31, 2021, the Company has issued 1,671,995 common shares, raising total gross proceeds of $3.7 million to under the ATM Facility. As at December 31, 2021, there were approximately US$16.3 million ($20.3 millon) available to use on the ATM Facility.

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.

Please refer to our management's discussion and analysis, and annual information form for the year ended March 31, 2021 for a complete discussion of risks and uncertainties.

- We have no sources of product revenue and will not be able to maintain operations and research and development without sufficient funding.
- We are highly dependent upon certain key personnel and their loss could adversely affect our ability to achieve our business objective.
- If we breach any of the agreements under which we license rights to product candidates or technology from third parties, we can lose license rights that are important to our business. Our current license agreements may not provide an adequate remedy for breach by the licensor.
- Clinical drug development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results and our product candidates may not have favourable results in later trials or in the commercial setting.
- There is no guarantee that FDA will grant 510(k) clearance or pre-market approval of a delivery device needed to administer MDNA55.
- We are subject to the restrictions and conditions of the CPRIT agreement. Failure to comply with the CPRIT agreement may adversely affect our financial condition and results of operations.
- If our competitors develop and market products that are more effective than our existing product candidates or any products that we may develop, or obtain marketing approval before we do, our products may be rendered obsolete or uncompetitive.
- We rely 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 our business.
- We rely on contract manufacturers over whom we have limited control. If we are subject to quality, cost or delivery issues with the preclinical and clinical grade materials supplied by contract manufacturers, business operations could suffer significant harm.
- Our future success is dependent primarily on the marketing authorization of a single product. MDNA55 is in the mid stages of clinical development and MDNA11 in pre-clinical development and, as a result, we will be unable to predict whether we will be able to profitably commercialize our product, if granted marketing authorization.
- We are subject to extensive government regulation that will increase the cost and uncertainty associated with gaining marketing authorization of our product candidates.
- Negative results from clinical trials or studies of third parties and adverse safety events involving the targets of our product candidates may have an adverse impact on future commercialization efforts.
- If we are unable to enroll subjects in clinical trials, we will be unable to complete these trials on a timely basis.
- We face the risk of product liability claims, which could exceed our insurance coverage and produce recalls, each of which could deplete cash resources.
- We may not achieve our publicly announced milestones according to schedule, or at all.
- Changes in government regulations, although beyond our control, could have an adverse effect on our business.

- Our significant shareholders may have material influence over our governance and operations.
- Our discovery and development processes involve use of hazardous and radioactive materials which may result in potential environmental exposure.
- 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.
- Even if any product candidates we develop receive marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, healthcare payors, and others in the medical community necessary for commercial success.
- Our success depends upon our ability to protect our intellectual property and its proprietary technology.
- Our potential involvement in intellectual property litigation could negatively affect our business.
- Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them.
- Product liability claims are an inherent risk of our business, and if our clinical trial and product liability insurance prove inadequate, product liability claims may harm our business.
- Our common share price has been volatile in recent years, and may continue to be volatile.
- 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.
- We are subject to foreign exchange risk relating to the relative value of the United States dollar.
- Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.
- Any failure to maintain an effective system of internal controls may result in material misstatements of our consolidated financial statements or cause us to fail to meet the reporting obligations or fail to prevent fraud; and in that case, shareholders could lose confidence in our financial reporting, which would harm the business and could negatively impact the price of the Common Shares.
- Our internal computer systems, or those used by our contractors or consultants, may fail or suffer security breaches.
- Failure to comply with the U.S. Foreign Corrupt Practices Act, the Canadian Corruption of Foreign Public Officials Act, and other global anti-corruption and anti-bribery laws could subject us to substantial penalties and other adverse consequences.
- If we fail to comply with healthcare laws, we could face substantial penalties and our business, operations and financial conditions could be adversely affected.
- Any future profits will likely be used for the continued growth of the business and products, if granted marketing authorizaton and will not be used to pay dividends on the issued and outstanding shares.
- We may pursue other business opportunities in order to develop our business and/or products, if granted marketing authorization.
- We may acquire businesses or products, or form strategic alliances, in the future, and we may not realize the benefits of such acquisitions.
- General litigation risk may compromise our ability to conduct our business.
- Our success depends on our ability to effectively manage our growth.
- If we are treated as a passive foreign investment company, United States shareholders may be subject to adverse U.S. federal income tax consequences.
- Our operations could be adversely affected by events outside of our control, such as natural disasters, wars or health epidemics.
- It may be difficult for non-Canadian investors to obtain and enforce judgments against us because of our Canadian incorporation and presence.
- As a foreign private issuer under U.S. securities laws, we are subject to different U.S. securities laws and rules than a domestic U.S. issuer, which may limit the information publicly available to our U.S. shareholders.
- We may lose foreign private issuer status in the future, which could result in significant additional costs and expenses.

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 three and nine months ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

As of December 31, 2021, 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	55,570,874
Warrants	3,734,703
Stock options	4,673,140
Total	**63,978,717**

For a detailed summary of the outstanding securities convertible into, exercisable or exchangeable for voting or equity securities of Medicenna as at March 31, 2021, refer to notes 9, 10, and 11 in the audited 2021 Annual Financial Statements of the Company.

Additional information relating to the Company, including the Company's annual information form in respect of fiscal year 2021, is available under the Company's profile on SEDAR at www.sedar.com and EDGAR at www.sec.gov.