Management's Discussion and Analysis

For the Year Ended
March 31, 2023

DATE OF REPORT: June 26, 2023

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following management's discussion and analysis ("MD&A") has been prepared as at June 20, 2023 for the year ended March 31, 2023 and should be read in conjunction with the audited consolidated financial statements of Medicenna Therapeutics Corp. for the year ended March 31, 2023 (the "Annual Financial Statements"). The audited consolidated financial statements and accompanying notes for the years ended March 31, 2023 have been prepared 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. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on current beliefs, expectations, or assumptions regarding the future of the business, future plans and strategies, operational results and other future conditions of the Company. 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 other than statements of historical fact regarding the prospects of the Company's industry or its prospects, plans, financial position or business strategy may constitute forward-looking statements and can generally be identified by the use of forward-looking words, such as "seek", "plan", "expect", "is expected", "continue", "predict", "potential", "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", "should", "might", "shall" or "will" be taken, occur or be achieved and similar expressions are generally intended to identify forward-looking statements.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that predictions, forecasts, projections and other forward-looking statements will not be achieved. The Company cautions readers not to place undue reliance on these statements as a number of important factors could cause the actual results to differ materially from the beliefs, plans, objectives, expectations, anticipations, estimates and intentions expressed in such forward-looking statements. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, as applicable, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking information and statements include, but are not limited to, the risks described under the heading "Risks and Uncertainties" in this MD&A, the Company's annual information form for the fiscal year ended March 31, 2023 (the "Annual Information Form") and the Company's annual report on Form 20-F for the fiscal year ended March 31, 2023 (the "Annual Report on Form 20-F") filed with the U.S. Securities and Exchange Commission (the "SEC").

Forward-looking statements in this MD&A include, but are not limited to:

- the therapeutic potential, clinical development and related milestones of the Company's Superkines and Empowered Superkines including MDNA11, the BiSKITs™ platform and bizaxofusp (formerly MDNA55);
- the timely completion of the milestones related to the MDNA11 ABILITY Study (as defined below)
- the impact of the delay on clinical data;

- the clinical trial collaboration and supply agreement with Merck (known as MSD outside the United States and Canada);
- statements related to the potential extensions of the term of patents;
- a potential strategic partnership to facilitate bizaxofusp's further development and commercialization; and
- the use of proceeds from public equity offerings and the necessity for the Company to have recourse to such public equity offerings.

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, including the following:

- the lack of product revenue and inability to continue operations and research and development without sufficient funding;
- the Company's requirements for, and our ability to obtain, future funding on favorable terms or at all;
- the Company's history of losses and expectations of future losses;
- the Company's inability to complete development of or the inability to commercialize (if approved) the Company's product candidates, which are in the early stages of development;
- the expense, length and uncertainty of clinical drug development programs;
- the inability to achieve publicly announced milestones according to schedule, or at all;
- the risk that competitors may develop and market products that are more effective that the Company's product candidates or that the products developed by competitors may render the Company's product candidates obsolete or uncompetitive;
- the Company's inability to secure a partnership for bizaxofusp (formerly MDNA55);
- the costs and uncertainty associated with extensive government regulation;
- the potential negative results from clinical trials or studies, adverse safety events or toxicities involving the Company's products used alone or in combination with other products of collaborators;
- the Company's ability to manage the unique risks and uncertainties related to developing biologics which could have a negative impact on future results of operations.
- the risk that preliminary and interim data from our clinical trials that we may announce or publish from time to time may change as patient data are further examined, audited or verified and more patient data become available.
- the value of the Fast Track designation granted to bizaxofusp and that it may not actually lead to a faster development or regulatory review or approval process and could be withdrawn by the FDA;
- the unfavorable pharmacokinetic ("PK") or pharmacodynamic ("PD") properties of MDNA11 and MDNA19 used alone or in combination with other products of collaborators;
- the potential of the pre-clinical products of the Company;
- the risk of product liability claims;
- the Company's inability to enroll subjects in clinical trials or complete clinical trials on a timely basis
- the failure of our product candidates to receive the marketing approval or market acceptance necessary for commercial success or to maintain any ongoing regulatory requirements it may be subject to;
- the potential for environmental exposure to hazardous or radioactive materials that are used in the Company's discovery and development process;
- the disruption in the availability of key components for ongoing clinical studies that could delay clinical studies, product testing and regulatory approval of the Company's product candidates;
- the Company's reliance on third parties for the planning, conduct and monitoring of preclinical and clinical trials and for the manufacture of drug product;
- the Company's reliance on contract manufacturers over whom the Company has limited control;
- the loss of license rights due to breach of license agreements;

- the conditions and restrictions of the Cancer Prevention and Research Institute of Texas ("CPRIT") grant;
- the ability to protect the Company's intellectual property and proprietary technology;
- the ability for the Company to obtain patent's term extensions;
- the potential involvement in intellectual property litigation;
- the risk that third-parties on whom we rely for product development may not adequately protect the Company's trade secrets;
- the risk of product liability claims;
- the limitations surrounding intellectual property rights
- the volatility in the price of our common shares ("Common Shares")
- the dilution of investor's voting power and reductions in earnings per share owing to future issuances of equity or the conversion of securities into Common Shares;
- the fact that future profits will likely be used for the continued growth of the Company's business and not for the payment of dividends
- the Company's treatment as a passive foreign investment company and potential adverse U.S. federal income tax consequences associated with such treatment;
- the difficulty U.S. investors may face in bringing actions against the Company for violations of U.S. federal or state securities laws and challenges in enforcing the judgments of U.S. courts against the Company and its directors and executive officers;
- the Company's status as a foreign private issuer under applicable U.S. securities laws;
- the potential for the Company to lose its status as a foreign private issuer;
- changes in government regulations that could impact our business and operations;
- failure to comply with the U.S. Foreign Corrupt Practices Act, the Canadian Corruption of Foreign Public Officials Act and other global corruption and anti-bribery laws;
- failure to comply with healthcare laws;
- the ability of the Company's significant shareholders to assert a material influence over the Company's operations and governance;
- the adverse impact of factors outside our control, such as global health pandemics, natural disasters, geopolitical conflict and macroeconomic challenges;
- the Company's ability to successfully manage its growth;
- the failure of any acquired business, product, service or alliance to yield expected benefits;
- the Company's dependence upon certain key personnel, the loss of whom could adversely affect our ability to achieve our business objectives;
- changes in government regulations that could impact our business and operations;
- failure to comply with the U.S. Foreign Corrupt Practices Act, the Canadian Corruption of Foreign Public Officials Act and other global corruption and anti-bribery laws;
- a failure to comply with healthcare laws;
- foreign currency exchange risks relating to the relative value of the United States dollar;
- the Company's ability to regain compliance and its ability to maintain future compliance with the minimum bid price requirement of the Nasdaq Capital Market ("Nasdaq");
- the failure of our disclosure controls and procedures to detect all errors or prevent all incidences of fraud;
- the failure to maintain an effective system of internal controls;
- the vulnerability of the computer and information systems of the Company, its consultants and contractors, and third-parties on which the Company relies, to security breaches or failure; and
- the pursuit of opportunities for further research and development or additional business opportunities.

The forward-looking information in this MD&A does not include a full assessment or reflection of the negative effect of adverse economic conditions, including a potential recession, and related inflationary cost pressures, higher interest rates and financial and capital market volatility; the negative effect of adverse conditions associated with the COVID-19 pandemic and geopolitical events; a declining level of business and consumer spending; regulatory initiatives, proceedings and decisions, government consultations and

government positions that affect us and influence our business; and the efforts of the Company to mitigate such conditions or events.

All forward-looking statements reflect the Company's beliefs and assumptions based on information available at the time the assumption was made.

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 four wholly owned subsidiaries, Medicenna Therapeutics Inc. (British Columbia), Medicenna Biopharma Inc. (Delaware), Medicenna Biopharma Inc. (British Columbia) and Medicenna Australia PTY Ltd. (Australia). On November 13, 2017, Medicenna continued under the *Canada Business Corporations Act*. On August 24, 2020, Medicenna began trading on the Nasdaq under the symbol "MDNA".

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 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 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, 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 to precisely activate or inhibit relevant signalling pathways or immune cells in order to improve therapeutic efficacy and safety.

Medicenna has built diverse platforms, each comprised of a pipeline of Superkine candidates in-licensed from Leland Stanford Junior University ("Stanford"). This includes the MDNA109 platform that consists of IL-2 agonists, IL-2 antagonists and partial agonists of IL-2. Additional assets from Stanford also include several super-agonists of IL-4 and IL-13 and dual IL-4/IL-13 antagonists. In addition, Medicenna has also independently developed therapeutic agents based on its Empowered Superkine and BiSKIT™ platforms.

The most advanced of the Superkine programs is the MDNA109 platform which is a genetically engineered IL-2 Superkine designed to specifically bind to CD122 (IL-2Rβ) with high affinity. To further enhance its selectivity, two additional mutations (FEAA) were incorporated in MDNA109 to abolish binding to CD25. To improve the PK properties of the highly selective version of MDNA109 (MDNA109FEAA), it was genetically fused to protein scaffolds such as the Fc domain of IgG1 (MDNA19) or recombinant human albumin (MDNA11) effectively increasing the size of the Superkine and improving its half-life to avoid frequent daily dosing which is required for an approved version of IL-2, Proleukin®.

We believe that, unlike Proleukin®, both MDNA11 and MDNA19, have superior PK properties, lack CD25 binding 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 and other therapeutic modalities.

Although MDNA19 was initially identified as the Company's lead IL-2 candidate, a pilot non-human primate ("NHP") study comparing MDNA11 with MDNA19 demonstrated that the former had better PK and 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 has initiated the Phase 1/2 ABILITY Study (A Beta-only IL-2 ImmunoTherapY Study with MDNA11 (the "ABILITY Study"). 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 resulting in two distinct but synergistic functions into one molecule: a BiSKIT™.

Complementing our MDNA109 platform is bizaxofusp, Medicenna's Empowered Superkine, for the treatment of recurrent glioblastoma ("rGBM"), the most common and uniformly fatal form of brain cancer. Bizaxofusp 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"). Bizaxofusp has been studied in five 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"). Bizaxofusp 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 bizaxofusp's further development and commercialization.

ACHIEVEMENTS & HIGHLIGHTS

The following are the achievements and highlights for the year ended March 31, 2023 through to the date hereof:

MDNA11 Highlights

Throughout the fiscal year, we provided updates on the progress of and clinical data from the MDNA11 ABILITY Study. The Company presented data on May 11, 2022 at the 9th Annual Frontiers in Cancer Immunotherapy Meeting organized by the New York Academy of Sciences and on July 27, 2022, at an oral presentation at the Cytokine Based Drug Development Summit, held in Boston. The data presented were subsequently updated, as described below.

On September 13, 2022, we announced that we had entered into a clinical trial collaboration and supply agreement ("CTCSA") with Merck to evaluate MDNA11 in combination with KEYTRUDA® (pembrolizumab), an anti-PD-1 (programmed death receptor-1) therapy, in the ongoing Phase 1/2 ABILITY Study. Under the terms of the CTCSA, Medicenna will sponsor the study and Merck will supply KEYTRUDA®. The two companies will establish a Joint Development Committee to optimally advance the study's combination arm.

On September 28, 2022, we reported anti-tumor activity data from the first four (low and mid) dose escalation cohorts of the Phase 1/2 ABILITY Study of MDNA11. A confirmed partial response ("PR") was achieved in a fourth-line (4L) metastatic pancreatic cancer patient and overall, five of fourteen (36%) evaluable patients have achieved tumor control (PR or stable disease ("SD")) in the ABILITY Study's first four dose escalation cohorts.

On November 10, 2022, we announced that new safety, PK, and PD data from the first four dose escalation cohorts of the Phase 1/2 ABILITY Study of MDNA11 were featured in two posters presented at the Society for Immunotherapy of Cancer ("SITC") 37th Annual Meeting held in Boston.

In December 2022, previously reported data from the Phase 1/2 ABILITY Study of MDNA11 were featured in an oral presentation at the 2022 Immunotherapy Bridge Conference. The presentation, titled "*Early Results of an IL-2 Superkine (MDNA11) from the Phase 1/2 ABILITY Study in Advanced Solid Tumors*" was delivered by Arash Yavari, M.B.B.S., DPhil., M.R.C.P., Principal Investigator at the Radcliffe Department of Medicine, University of Oxford and Principal Clinical Advisor to Medicenna.

Additional updates on the anti-tumor efficacy of MDNA11 in cohorts 1-4 were provided on March 30, 2023.

Pre-clinical Pipeline

On April 8, 2022, Medicenna announced new preclinical data highlighting the potent anti-tumor efficacy of the next-generation BiSKIT, anti-PD1-MDNA109FEAA (now known as MDNA223), an anti-PD1 antibody fused to an IL-2 Superkine as well as on its long-acting dual IL-4/IL-13 super-antagonist, Fc-MDNA413, during poster sessions at the American Association for Cancer Research ("AACR") Annual Meeting.

On September 22, 2022, preclinical data on Fc-MDNA413, a long-acting IL-4/IL-13 super-antagonist, and MDNA223, a next generation BiSKIT consisting of an anti-PD1 antibody linked to an IL-2 super-agonist, were presented at the 10th Annual Meeting of the International Cytokine & Interferon Society ("Cytokines 2022"), held in Big Island, Hawaii.

On March 15, 2023, we announced the publication of an abstract at the 2023 AACR Annual Meeting which described preclinical studies characterizing a long-acting version of MDNA132 and BiSKITs™, comprising MDNA132 fused to an IL-2 super-agonist or anti-PD1 antibody. MDNA132 is an IL-13 Superkine designed to enable targeted delivery of immunotherapies to the tumor microenvironment. MDNA132 exhibits high affinity and selectivity for the IL13Rα2, which is highly overexpressed in various tumors such as pancreatic, prostate, bladder, colorectal, breast and lung cancer but minimally expressed in healthy tissues.

On April 17, 2023, we announced that new preclinical data characterizing the Interleukin 13 (IL-13) Superkines, MDNA132 and MDNA213 (an improved version of MDNA132), and a series of next generation IL-13 Superkine therapies, were presented at the AACR Annual Meeting, which took place in Orlando, Florida. The AACR poster included data demonstrating that both MDNA132 and MDNA213 exhibit highly selective binding to the IL-13 decoy receptor (IL-13Rα2) and, in a murine model, selectively accumulate in the tumor microenvironment ("TME") for several days.

Bizaxofusp Updates

In January 2023, the full results of a single-arm Phase 2b trial of bizaxofusp in patients with recurrent glioblastoma were published in the peer-reviewed journal *Neuro-Oncology*. Results showed the trial met its primary endpoint, with median overall survival ("mOS") in the primary and supportive analysis populations exceeding the trial's pre-defined success criteria and the mOS historically achieved with currently approved therapies.

Intellectual Property Updates

On June 9, 2022, we announced that the U.S. Patent and Trademark Office ("USPTO") had issued U.S. Patent No. 11,352,402 titled, "Interleukin-4 Receptor-Binding Fusion Proteins And Uses Thereof." The patent provides intellectual property ("IP") protection for composition and methods of treating degenerative diseases via administration of a fusion protein comprising an IL-4 or IL-13 Superkine and an anti-apoptotic Bcl-2 family polypeptide. The patent's term extends into at least 2038 without accounting for any potential extensions.

On July 12, 2022, the USPTO issued U.S. Patent No. 11,117,943, titled "Superagonists and Antagonists of Interleukin-2." The patent provides IP protection for methods of treating leukemia using IL-2 muteins, such as MDNA209, that have an increased binding capacity for IL-2Rβ and a decreased binding capacity for IL-2Rγc.

On January 5, 2023, we announced that the USPTO had issued U.S. Patent No. 11,542,312 titled “IL-2 Superagonists in Combination with Anti-PD-1.” The patent provides IP protection for methods of treating cancer with an IL-2 Superkine such as MDNA11 and a PD1 (for example, pembrolizumab), PDL1 or CTLA-4 checkpoint inhibitor in combination, as planned in the on-going ABILITY Study, or as a single agent using our BiSKIT™ platform. The patent’s term extends into at least 2039 without accounting for any potential extensions.

Corporate Updates

On August 11, 2022, we raised gross proceeds of US$20.0 million ($25.6 million) under an undewritten public offering of units, with each unit consisting of one Common Share and one Common Share purchase warrant (the “2022 Public Offering”). Each Common Share purchase warrant entitles the holder to purchase one Common Share at an exercise price of US$1.85 until August 9, 2027.

On February 17, 2023, we announced that we had entered into a sales agreement with Oppenheimer & Co. Inc., acting as sales agent (the “2023 ATM Agreement”), pursuant to which the Company may, from time to time, sell through “at-the-market” offerings on the Nasdaq such number of Common Shares that would have an aggregate offering price of up to US$10 million (“the 2023 ATM Facility”). Medicenna will determine, at its sole discretion, the time, minimum price and maximum number of Common Shares to be sold under the 2023 ATM Facility.

FINANCING UPDATE

Year ended March 31, 2023

August 2022 Public Offering

On August 11, 2022, pursuant to the 2022 Public Offering, we sold 13,333,334 units at a purchase price of US$1.50 per unit for gross proceeds of US$20.0 million ($25.6 million). Each unit included one Common Share with a fair value of US$1.06 and one Common Share purchase warrant with a fair value of US$0.44. Each Common Share purchase warrant entitles the holder to purchase one Common Share at an exercise price of US$1.85, until August 9, 2027. We incurred transaction costs of $2.2 million (US$1.7 million) of which $1.6 million (US$1.2 million) were allocated to share issue costs and $0.6 million (US$0.5 million) were allocated to operating expenses, based on their relative fair values.

2023 At-The-Market Facility

On February 17, 2023, the Company entered into the 2023 ATM Agreement with Oppenheimer & Co. Inc., acting as sales agent, pursuant to which the Company may, from time to time sell, through at-the-market offerings on the Nasdaq such number of Common Shares as would have an aggregate offering price of up to US$10.0 million. During the year ended March 31, 2023, the Company did not issue any Common Shares pursuant to the 2023 ATM Facility.

2020 At-The-Market Facility

On December 30, 2020, the Company entered into a sales agreement with SVB Securities LLC (f/k/a SVB Leerink LLC), acting as sales agent (the “2020 ATM Agreement”), pursuant to which the Company may have sold through an at-the-market offering on the Nasdaq such number of Common Shares as would have an aggregate offering price of up to US$25.0 million (the “2020 ATM Facility”). The 2020 ATM Facility expired on December 30, 2022. During the year ended March 31, 2023, the Company issued 656,656 Common Shares (March 31, 2022: 1,748,600 Common Shares) for gross proceeds of US$0.8 million (March 31, 2022: US$3.1 million) at an average price of US$1.20 (March 31, 2022: US$1.77). The Company received, proceeds net of commissions, US$0.7 million (March 31, 2022: US$2.9 million).

Warrants

During the year ended March 31, 2023, no warrants were exercised.

The term of certain warrants outstanding and exercisable, totaling 1,549,052 due to expire on October 17, 2022, and issued on October 17, 2019, as part of a public offering of an aggregate of 5,307,693 units of the Company, was extended on October 17, 2022 to July 17, 2023.

Year ended March 31, 2022

During the year ended March 31, 2022, a total of 1,748,600 Common Shares were sold under the 2020 ATM Facility for total gross proceeds of $3.9 million (US$3.0 million).

During the year ended March 31, 2022, 266,290 warrants were exercised for proceeds of $0.4 million.

Year ended March 31, 2021

On April 15, 2020, the Company closed the full over-allotment option to purchase an additional 1,693,548 Common Shares 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.

During the year ended March 31, 2021, a total of 1,398,357 Common Shares were sold under the 2020 ATM Facility for total gross proceeds of $7.1 million (US$5.8 million).

During the year ended March 31, 2021, 3,415,266 warrants were exercised for proceeds of $6.7 million.

NASDAQ LISTING

On October 25, 2022, the Company received a notice from the Nasdaq Stock Market LLC (the "Nasdaq Notice"), stating that the Company was not in compliance with the minimum bid price requirement of US$1.00 (the "Minimum Bid Requirement") per share under the Nasdaq Listing Rule 5450(a)(1) based upon the closing bid price of the Common Shares for the 30 consecutive business days prior to the date of the Nasdaq Notice. The Nasdaq Notice had no immediate effect on the listing or trading of the Common Shares on Nasdaq, and the Company's operations currently remain unaffected by the receipt of the Nasdaq Notice.

On April 25, 2023, the Company received an extension notice (the "Extension Notice") from Nasdaq granting the Company's request for a 180-day extension to regain compliance with the Minimum Bid Requirement. The Company has until October 23, 2023 to regain compliance with the Minimum Bid Requirement. The Extension Notice had no immediate effect on the listing or trading of the Common Shares on Nasdaq, and the Company's operations are not affected by the receipt of the Extension Notice.

The Company is closely monitoring the closing bid price of its Common Shares and is considering its options to regain compliance with the Minimum Bid Requirement under the Nasdaq Listing Rules. The Extension Noticee does not have any impact on the Company's TSX listing.

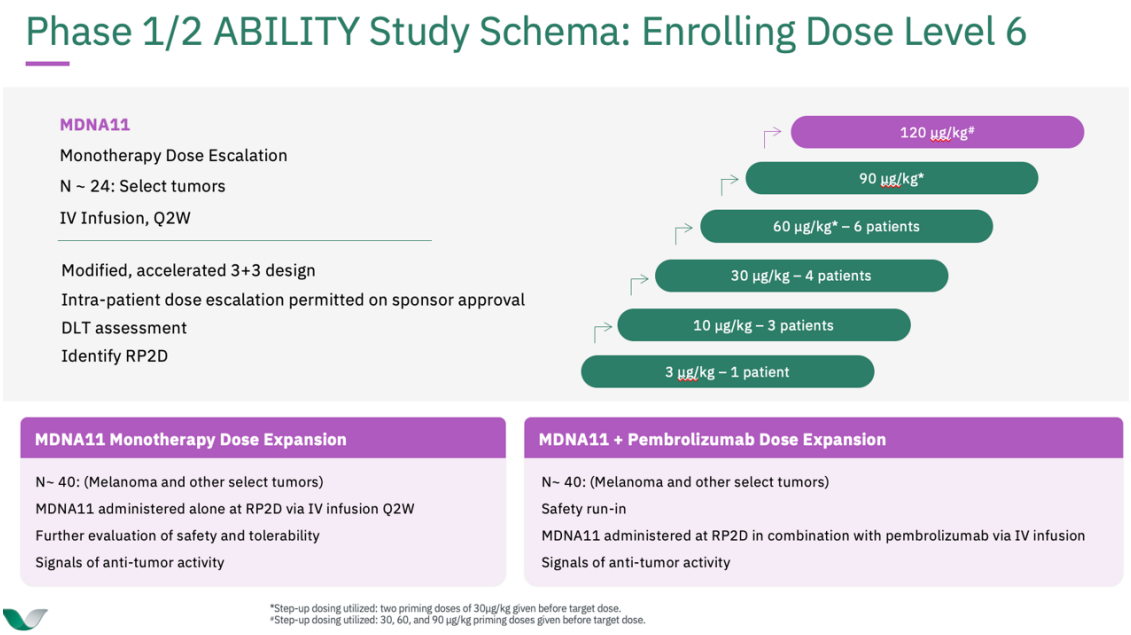
RESEARCH & DEVELOPMENT UPDATE

Superkine Platform

MDNA11

On September 14, 2021, we announced that we had dosed the first patient in 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 of MDNA11 administered intravenously every two 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 KEYTRUDA®. 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 explore the pan-tumor potential of MDNA11. The study also permits alternative dosing schedules, as well as options for intra-patient dose escalation. The ABILITY Study is currently enrolling patients at clinical sites in Australia, Canada and the United States.



On May 2, 2022, Medicenna announced new clinical data from the third cohort of the Phase 1/2 ABILITY Study of MDNA11 and on May 11, 2022, Medicenna presented additional clinical data from the Phase 1/2 ABILITY Study during a poster presentation at the 9th Annual Frontiers in Cancer Immunotherapy Meeting, organized by the New York Academy of Sciences. These data were subsequently updated in July as described below.

On July 27, 2022, Medicenna announced new clinical data on safety, PK, PD and anti-tumor activity from the Phase 1/2 ABILITY Study of MDNA11 which were presented at the Cytokine Based Drug Development Summit, held in Boston. These data were subsequently updated as described below.

On September 13, 2022 we announced that we had entered into the CTCSA with Merck to evaluate MDNA11 in combination with KEYTRUDA® (pembrolizumab), Merck's anti-PD-1 (programmed death receptor-1) therapy, in the ongoing Phase 1/2 ABILITY Study. Under the terms of the CTCSA, Medicenna will sponsor the study and Merck will supply KEYTRUDA®. The two companies will establish a Joint Development Committee to optimally advance the study's combination arm.

On November 10, 2022, the Company announced new safety, PK, and PD data from the first four dose escalation cohorts of the Phase 1/2 ABILITY Study of MDNA11.The data were featured in two posters presented at the SITC 37th Annual Meeting.

In December 2022, previously reported data from the Phase 1/2 ABILITY Study of MDNA11 were featured in an oral presentation at the 2022 Immunotherapy Bridge Conference. The presentation, titled "*Early Results of an IL-2 Superkine (MDNA11) from the Phase 1/2 ABILITY Study in Advanced Solid Tumors*" was delivered by Arash Yavari, M.B.B.S., DPhil., M.R.C.P., Principal Investigator at the Radcliffe Department of Medicine, University of Oxford and Principal Clinical Advisor to Medicenna.

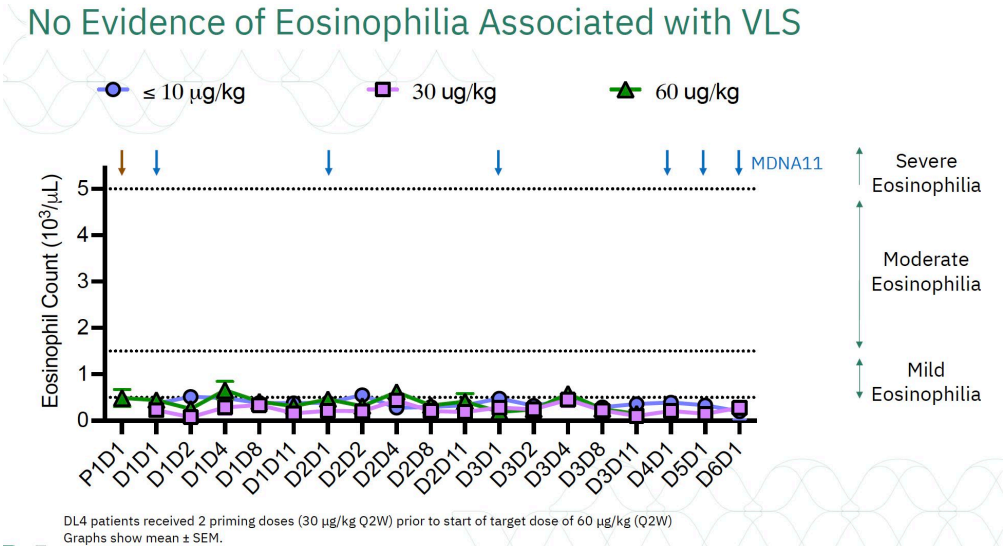
Additional updates on the anti-tumor efficacy of cohorts 1-4 were provided on March 30, 2023.

In the dose escalation portion of the ABILITY Study, MDNA11 is administered intravenously, as a monotherapy, once every two weeks to patients with advanced solid tumors. The trial's first two cohorts evaluated MDNA11 doses ≤ 10 µg/kg. The trial's third cohort was administered a dose of 30 µg/kg. Patients in the fourth and fifth dose escalation cohorts receive two 30 µg/kg "priming" doses of MDNA11 before stepping up to receive fixed doses of 60 and 90 µg/kg, respectively.

Key data from patients enrolled in the trial's four initial dose escalation cohorts include:

Demographics:
- Patients enrolled in the study to date (N=14) have failed up to four lines of prior systemic therapy.
- 11 of 14 patients have relapsed, were not tolerant to or did not respond to at least one prior immunotherapy with a checkpoint inhibitor.

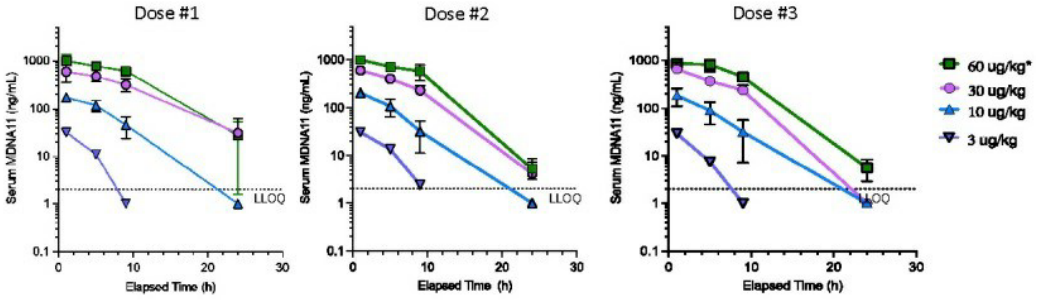
Safety:
- MDNA11 treatment in Cohort 4 (comprised of two step-up doses of 30 µg/kg followed by fixed doses of 60 µg/kg every two weeks) was not associated with any dose-limiting toxicities.
- The Safety Review Committee approved dose escalation for Cohort 5 to the 90 µg/kg dose every two weeks following two priming doses at 30 µg/kg.
- Subsequent to the quarter end, the Safety Review Committee approved dose escalation for Cohort 6 to a target dose of 120 µg/kg dose every two weeks following three priming doses at 30, 60 and 90 µg/kg.
- Significant increases in eosinophil count from baseline have not been observed with MDNA11 treatment. Extremely high eosinophil count is associated with vascular leak syndrome which is a known side effect of high-dose recombinant human IL-2 (Proleukin®).



Pharmacokinetics:
- The pharmacokinetic data from the first three cohorts demonstrated similar trends following each of three repeat doses which suggests lack of immunogenicity or insignificant levels of anti-drug-antibodies.
- Dose dependent increase in the C_{max} and Area Under the Curve were also observed.

MDNA11 PK Profile in Cancer Patients

- MDNA11 PK exhibits saturable rapid clearance and a slower parallel linear clearance process
- Dose-dependent increase in exposure (C_{max} and AUC_{last})
- Variability is low between Dose 1-3, suggesting that there is no clinically significant ADA response



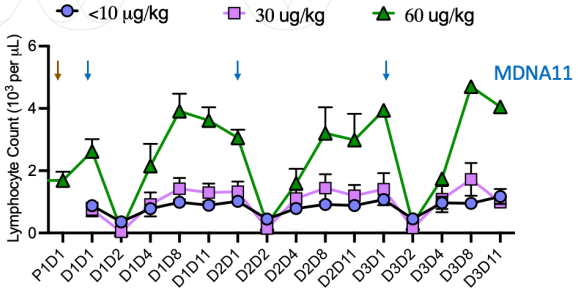
LLOQ = lower limit of quantification
Values < LLOQ plotted as 0.5 x LLOQ

Pharmacodynamics:

- In addition to dose-dependent increases in lymphocyte counts and lymphocyte kinetics, MDNA11 preferentially expanded anti-cancer NK and CD8⁺ T cells without stimulating proliferation of pro-tumor Treg cells.

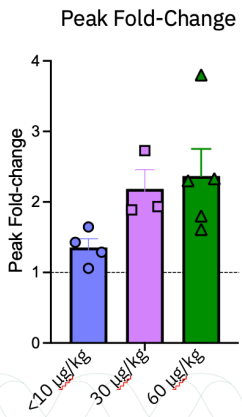
MDNA11 Induced Lymphocyte Expansion

- Expansion of circulating lymphocytes irrespective of baseline count



	Average AUC (day.10^3 cells/µL) (Average of Dose 1 & 2)
< 10 µg/kg	3
30 µg/kg	4.8
60 µg/kg	12.2

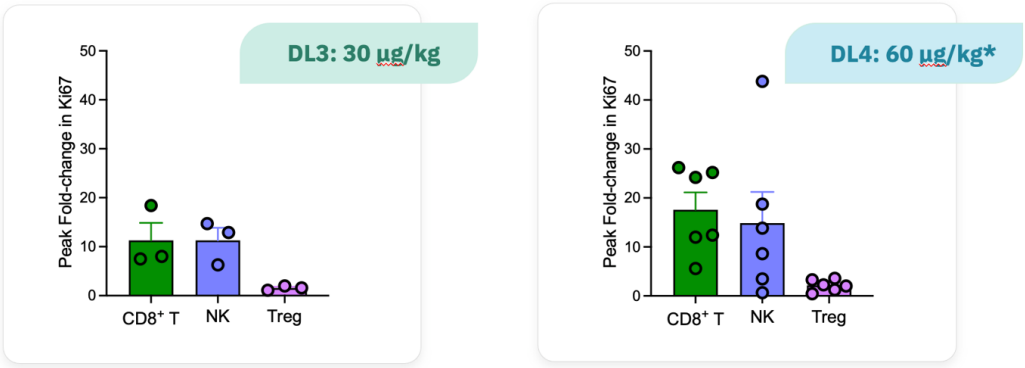
DL4 patients received 2 priming doses (30 µg/kg Q2W) prior to target dose (60 µg/kg Q2W)
Graph shows mean ± SEM.
AUC measured as area between minimum lymphocyte count values



Peak fold-change relative to baseline.
Graph shows mean ± SEM
For < 10 µg/kg and 30 µg/kg, peak data for Dose
For 60 µg/kg, peak data for Target Dose 1

MDNA11 Stimulated CD8+ T and NK Cell Proliferation (Ki67)

No increase in Tregs

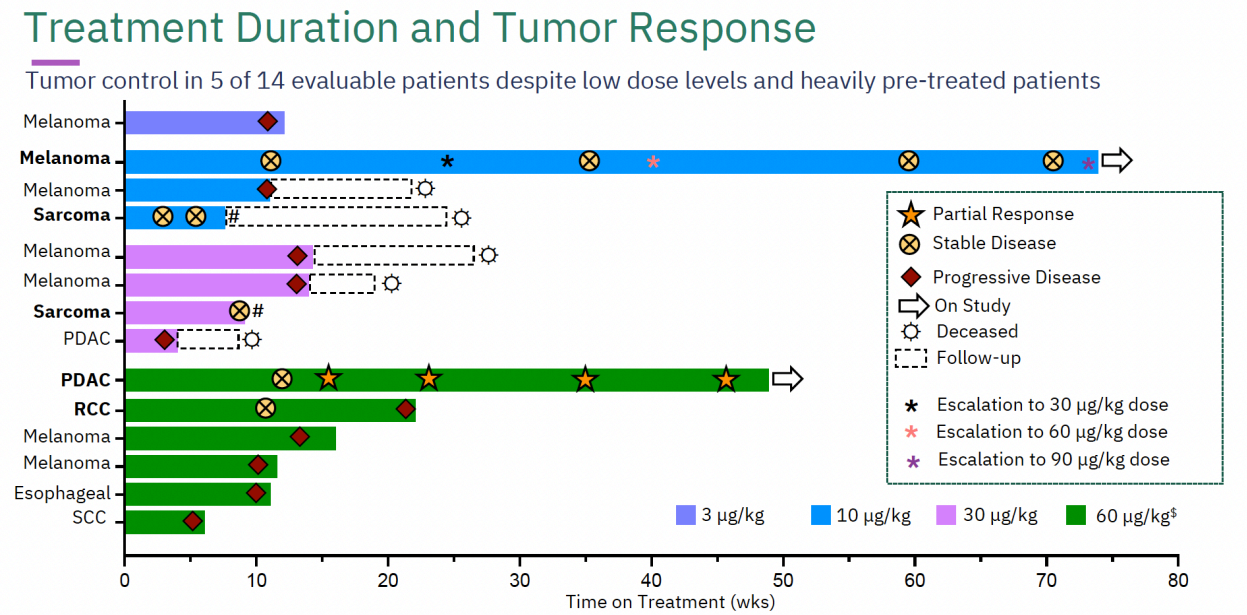


Peak fold-change relative to baseline. Proliferation assess based on Ki67 expression
*Patients received 2 priming 30 µg/kg doses (Q2W) prior to target dose of 60 µg/kg. Data for 30 µg/kg cohort are based on 3rd administration for comparison.
Dose 3 data available for 3 of 4 patients.

Anti-tumor Activity:

- Of the 14 evaluable patients with at least one on-treatment imaging scan, five patients achieved tumor control (defined as stable disease, partial response, or complete response as per RECIST 1.1) during the monotherapy dose-escalation portion of the MDNA11 ABILITY Study as follows:

1. Metastatic Leiomyosarcoma Stage IV (Dose Level 2 @ 10 µg/kg); stable disease.
2. Metastatic Melanoma Grade 4C (initially enrolled at Dose Level 2 @ 10 µg/kg Q2W with subsequent intra-patient dose escalations to Dose Level 3 @30 µg/kg and Dose Level 4 @60 µg/kg), stable disease.
3. Metastatic Sarcoma Stage IV (Dose Level 3 @ 30 µg/kg), stable disease
4. Pancreatic Ductal Adenocarcinoma (PDAC) Stage IV (Dose Level 4 @ 60 µg/kg following 2 priming doses of 30 µg/kg), confirmed partial response.
5. Non-clear cell 3L renal cell carcinoma patient (Dose Level 4 @ 60 µg/kg following 2 priming doses of 30 µg/kg), stable disease.



Target lesions exhibit SD; treatment ended due to clinical progression or withdrawal; $ Patients received 2 x 30 µg/kg (Q2W) prior to target dose of 60 µg/kg

Medicenna is currently enrolling patients in the final (sixth) cohort of the dose escalation portion of the MDNA11 Phase 1/2 ABILITY Study and continues to follow-up with patients in the lower dose escalation cohorts. Upon completion of the MDNA11 monotherapy dose-escalation phase (Phase 1), the study will commence enrolling patients in the dose-expansion phase (Phase 2). The dose expansion phase will evaluate both MDNA11 monotherapy as well as MDNA11 in combination with KEYTRUDA®.

It is expected that the dose escalation portion of the study will be completed in mid-calendar year 2023. An update on PK, PD, safety and efficacy data from all the six cohorts of the dose-escalation portion, including initial anti-tumor activity data from the fifth and sixth dose escalation cohorts, is expected in calendar Q3 2023. The Phase 2 monotherapy dose expansion is expected to commence in calendar Q3 2023, with a clinical update from the Phase 2 monotherapy dose expansion expected in calendar Q4 2023, and the combination arm is expected to initiate in calendar Q4 2023. These timelines have been delayed from those originally disclosed due to additional dose escalation cohorts as well as implementation of step-up-dosing which requires extra time to reach the target dose, essentially extending the duration of the dose-limiting toxicity evaluation period from 4 weeks from first exposure to up to 10 weeks. If required, additional evaluation of MDNA11 dosing regimen (shorter duration and/or more rapid step-up to target dose) and schedule (Q3W instead of Q2W) for monotherapy and combination settings may also occur during the MDNA11 dose expansion portion of the study.

IL-4 and IL-13 Superkines

Medicenna's IL-4 and IL-13 Superkines, licensed from Stanford University, 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 cytokines 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).

MDNA413: An IL-4/IL-13 Dual Super-Antagonist

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.

On April 8, 2022, Medicenna announced new preclinical data on its long-acting IL-13 super-antagonist, Fc-MDNA413, in an electronic poster at the AACR Annual Meeting. Fc-MDNA413 comprises of an IL-13 super-antagonist (MDNA413) fused to the Fc domain for half-life extension.

We believe that MDNA413's ability to block 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. MDNA413 has also been fused with MDNA19 (a long acting Fc-IL2 Superkine) as a novel BiSKIT™ candidate and was the basis of data presented at the 2021 AACR meeting as described below.

MDNA132 and MDNA213: High Affinity Cancer-Specific Targeting Ligands

Another promising IL-13 Superkine is MDNA132, and its variant, MDNA213. Unlike MDNA413, MDNA132 and MDNA213 are IL-13 ligands that have been engineered to increase affinity for IL13Rα2 overexpressed on certain solid tumors while exhibiting sharply decreased affinity for IL13Rα1. Medicenna believes MDNA132 and MDNA213 has superior targeting compared to other IL-13 variants in development, and is an attractively differentiated targeting domain for (a) cell-based immunotherapies (such as those using chimeric antigen receptors or CARs); (b) potent payloads used in antibody-drug conjugates ("ADC"); (c) targeted fusion toxins or (d) radiopharmaceuticals. Development timelines for MDNA132 and MDNA213 have yet to be established. MDNA132 and/or MDNA213 are also being evaluated as a potential fusion protein in our BiSKITs™ platform.

On April 17, 2023, we announced that new preclinical data characterizing the Interleukin 13 (IL-13) Superkines, MDNA132 and MDNA213, and a series of next generation IL-13 Superkine therapies, were presented at the AACR Annual Meeting, which took place at from April 14, 2023 until April 19, 2023. The AACR poster included data demonstrating that both MDNA132 and MDNA213 exhibit highly selective binding to the IL-13 decoy receptor (IL-13Rα2) and, in a murine model, selectively accumulate in the tumor microenvironment (TME) for several days. MDNA132 and MDNA213 exhibit high affinity and selectivity for the IL13Rα2, which is overexpressed in various tumors such as pancreatic, prostate, bladder, colorectal, breast and lung cancer but minimally expressed in healthy tissues. High expression of IL13Rα2 in these tumors is generally associated with more aggressive cancer and poor survival outcomes.

Medicenna is currently screening and optimizing a variety of IL-2/IL-4/IL-13 Superkines as part of our BiSKITs™ platform. Additional funding will be necessary to advance one or more of these product candidates into clinical trials.

BiSKITs™ (Bi-functional SuperKine ImmunoTherapies) Platform

Our BiSKITs™ platform allows us to develop designer Superkines by fusing them to other proteins, checkpoint inhibitors, antibodies or cytokines to our IL-2, IL-4 and/or IL-13 Superkines in order to combine two distinct and yet synergistic mechanisms of action into one molecule: a BiSKIT™.

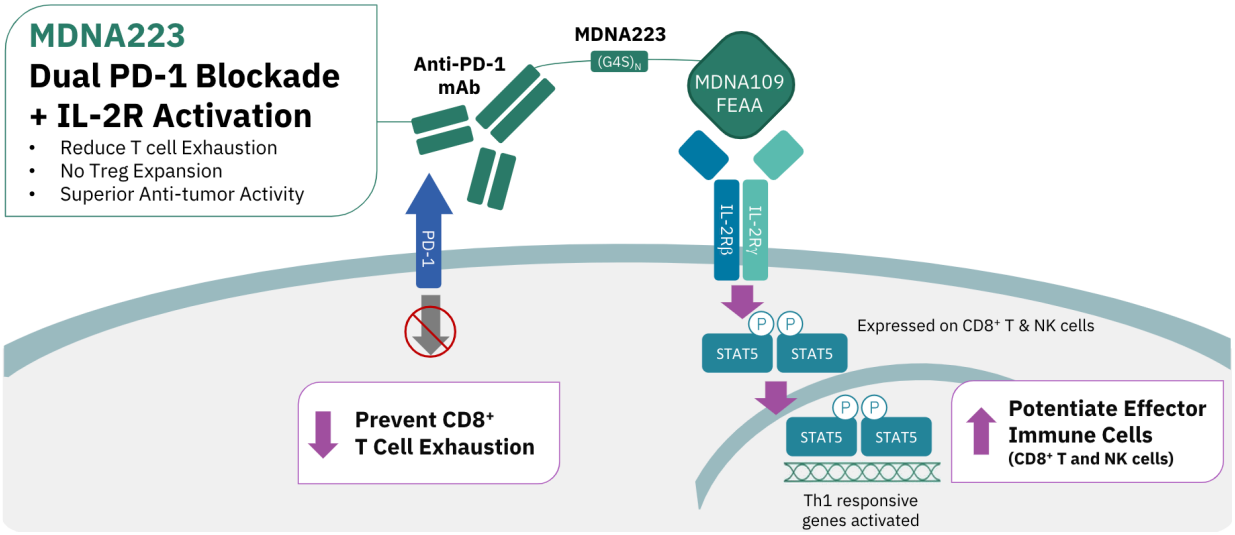
On April 8, 2022, we announced new preclinical data highlighting the potent anti-tumor efficacy of the next-generation BiSKIT™, anti-PD1-MDNA109FEAA, in an electronic poster at the AACR Annual Meeting. BiSKITs can target cancers where other immunotherapies have failed to be effective. One example of this is MDNA223, an IL-2 Superkine fused to a checkpoint inhibitor (anti-PD1). MDNA223 is a BiSKIT designed to activate cancer killing immune cells via the IL-2 receptor while simultaneously preventing their exhaustion through the validated method of blocking PD-1 signaling. Combining these two functions into a single molecule allows us to simultaneously engage both of these important targets on the same immune cells (also known as cis-binding).

On September 22, 2022, *in vitro* data presented at Cytokines 2022 demonstrated that MDNA223's potency was similar to that of a control anti-PD1 antibody while displaying high-affinity for IL-2 receptor beta (IL-

2Rβ) and no binding to IL-2 receptor alpha (IL-2Rα). This enhanced IL-2Rβ selectivity resulted in potent and preferential stimulation of anti-cancer CD8+ T cells over pro-tumor Treg cells. *In vivo* murine data showed MDNA223 exhibiting a prolonged PD response extending beyond the duration of PK exposure.

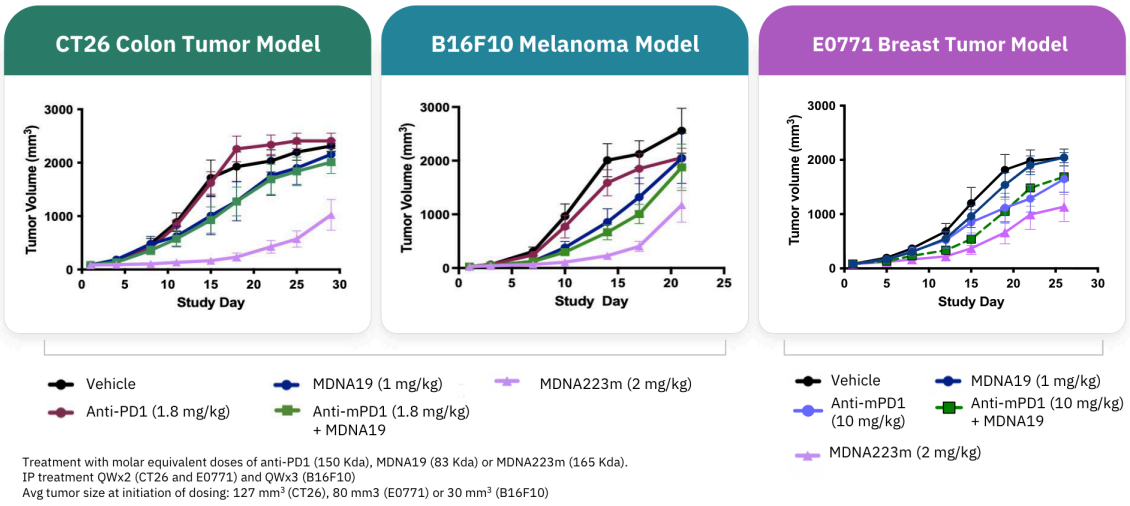
MDNA223: Anti-PD1-IL-2 Superkine BiSKIT

Synchronized cis-binding for PD-1 blockade and IL-2R activation on same CD8⁺ T or NK cell



Data from murine tumor models of colon, skin and breast cancer using a mouse version of MDNA223 (i.e MDNA223m) showed dose-dependent and statistically significant improvements in efficacy compared to co-administration of the anti-PD-1 antibody and IL-2 super-agonist (MDNA19) at equivalent molar doses, demonstrating the advantage of exploiting the BiSKIT's cis-binding potential. These data demonstrate the therapeutic synergy resulting from the BiSKIT's ability to concurrently target PD1 and the IL-2 receptor on the same immune cells (*cis*-binding approach).

MDNA223m showed higher levels of anti-tumor activity than co-administration in pre-clinical studies



Treatment with molar equivalent doses of anti-PD1 (150 Kda), MDNA19 (83 Kda) or MDNA223m (165 Kda).
IP treatment QWx2 (CT26 and E0771) and QWx3 (B16F10)
Avg tumor size at initiation of dosing: 127 mm³ (CT26), 80 mm3 (E0771) or 30 mm³ (B16F10)

On January 5, 2023, Medicenna announced that the USPTO had issued U.S. Patent No. 11,542,312 titled "IL-2 Superagonists in Combination with Anti-PD-1." The patent provides IP protection for methods of treating cancer with an IL-2 Superkine such as MDNA11 and a PD1 (for example, pembrolizumab), PDL1

or CTLA-4 checkpoint inhibitor in combination, as planned in the on-going ABILITY Study, or as a single agent using our BiSKIT™ platform. The patent's term extends into at least 2039 without accounting for any potential extensions.

Medicenna is currently screening and optimizing a variety of IL-2/IL-4/IL-13 Superkines as part of our BiSKITs™ platform.

Bizaxofusp (formerly MDNA55)

Bizaxofusp has been studied in five 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.

A Phase 2b clinical trial with bizaxofusp 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. Subsequently, a separate blinded study that collected rGBM survival and prognostic data from 81 patients, that had contemporaneously received treatment at major clinical centres using current SOC, were used to establish a matched External Control Arm ("ECA"). The blinded survival data from the matched ECA (established by matching with the bizaxofusp treated population based on 11 different prognostic factors using propensity scoring methods) were then used as a control arm versus survival data from the Phase 2b bizaxofusp trial.

On September 29, 2020, Medicenna had an End of Phase 2 meeting with the FDA to discuss future development and commercialization of bizaxofusp, if approved for rGBM. On October 15, 2020, we announced that 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 ECA to support marketing authorization of bizaxofusp for rGBM. Medicenna is pursuing strategic partnerships to assist with additional clinical development of bizaxofusp, as well as preparing the program for commercialization and its subsequent launch in various countries where marketing authorization has been granted.

In January 2023, the full results of a single-arm Phase 2b trial of bizaxofusp (recently named as per WHO International Non-proprietary Names) in patients with recurrent glioblastoma were published in the peer-reviewed journal *Neuro-Oncology.* Results showed the trial met its primary endpoint, with mOS in the primary and supportive analysis populations exceeding the trial's pre-defined success criteria and the mOS historically achieved with currently approved therapies.

SELECTED FINANCIAL INFORMATION

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

	2023	2022	2021
	$	$	$
General and administration	**6,999**	7,757	6,525
Research and development	**9,304**	14,716	10,870
Change in fair value of warrant derivative (gain)	**(4,347)**	-	-
Transaction costs on derivative warrant liability	**652**	-	-
Finance (income)	**(914)**	(69)	(314)
Foreign exchange (gain) loss	**(1,646)**	173	208
Net (loss)	**(10,048)**	(22,577)	(17,289)
Basic and diluted loss per share	**(0.16)**	(0.42)	(0.35)
Total assets	**36,446**	23,456	42,252
Total liabilities	**6,960**	2,621	4,107

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

For the year ended March 31, 2023, we reported a net loss of $10.0 million ($0.16 loss per share), compared to a net loss $22.6 million ($0.42 loss per share) for the year ended March 31, 2022. The decrease in net loss for the year ended March 31, 2023, compared with the year ended March 31, 2022, was partially a result of decreased research and development expenditures related to the MDNA11 program, where GMP manufacturing and IND-enabling studies were completed in the prior year. There was a foreign exchange gain of $1.6 million during the year ended March 31, 2023, compared to a loss of $0.2 million in the year ended March 31, 2022, resulting from a gain on USD cash and cash equivalents. In addition a non-cash change in the fair value of the warrant derivative (gain) of $4.3 million for the year ended March 31, 2023 further contributed to the reduction in net loss. These reductions were offset by a reimbursement of $1.8 million under the CPRIT grant in the year ended March 31, 2022 which reduced R&D expenditures in 2022.

For the year ended March 31, 2022, we reported a net loss of $22.6 million ($0.42 loss per share), compared to a net loss of $17.3 million ($0.35 loss per share) for the year ended March 31, 2021. The increase in net loss for the year ended March 31, 2022, compared with the year ended March 31, 2021, 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 liability insurance premiums in the year ended March 31, 2022. There was a reimbursement of $1.8 million under the grant from CPRIT, as well as refundable tax credits of $0.7 million in the year ended March 31, 2022 which reduced R&D expenditures in the year (2021 - $nil).

Cash utilized in operating activities for the year ended March 31, 2023 was $12.7 million, compared to cash utilized in operating activities for the year ended March 31, 2022 of $23.6 million. The decrease in cash utilized in the year ended March 31, 2023 compared to the year ended March 31, 2022 is primarily the result of decreased research and development expenses, unrealized foreign exchange gain and changes in working capital.

Cash utilized in operating activities for the year ended March 31, 2022 was $23.6 million, compared to cash utilized in operating activities for the year ended March 31, 2021 of $15.3 million. The increase in cash

utilized in the current year is primarily the result of increased research and development expenses, offset by $1.8 million received from the CPRIT grant and $0.7 million in refundable tax credits.

RESULTS OF OPERATIONS FOR THE YEAR ENDED MARCH 31, 2023

Research and Development ("R&D") Expenses

	2023	2022	2021
	$	$	$
Research and Development Expenses			
Chemistry, manufacturing, and controls	**906**	6,841	2,356
Regulatory	**196**	502	801
Discovery and pre-clinical	**1,274**	3,441	2,896
Clinical	**3,554**	2,322	1,225
Salaries and benefits	**2,266**	2,759	1,413
Licensing, patent, legal fees and royalties	**1,295**	733	1,620
Stock based compensation	**505**	467	391
CPRIT grant claimed in eligible expenses (Note 12)	**-**	(1,753)	-
Refundable tax credits (Note 12)	**(748)**	(700)	-
Other research and development expenses	**56**	104	168
	9,304	14,716	10,870

R&D expenses of $9.3 million were incurred during the year ended March 31, 2023, compared with $14.7 million in the year ended March 31, 2022, and $10.9 million incurred in the year ended March 31, 2021.

The decrease in R&D expenses during the year ended March 31, 2023 compared to the year ended March 31, 2022 is primarily attributable to:

- one-time chemistry, manufacturing and controls costs ("CMC"), associated with the scale-up of good labor practices ("GLP") and good manufacturing practices ("GMP") and manufacturing of MDNA11 required to supply adequate drug product for IND-enabling studies and the ABILITY Study, completed in the prior year;
- discovery and pre-clinical expenses associated with the GLP compliant MDNA11 IND enabling studies, completed in prior year; and
- decrease in regulatory costs due to the preparation of regulatory filings necessary to initiate the MDNA11 ABILITY study incurred in the prior year.

The above decreases were partially offset by an increase in clinical costs as more patients were enrolled in MDNA11 ABLILITY Study in the year ended March 31, 2023, and by the reimbursement of previously incurred expenses with respect to the CPRIT grant of $1.8 million in the year ended March 31, 2022.

The increase in R&D expenses during the year ended March 31, 2022 compared with the year ended March 31, 2021 is primarily attributable to:

- one-time higher CMC costs, associated with the 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, completed during the year ended March 31, 2022;
- increased discovery and pre-clinical expenses associated with the GLP compliant MDNA11 IND-enabling studies, completed during the year ended March 31, 2022, as well as discovery work on the BiSKITs platform which has increased in the year ended March 31, 2022;

- increased clinical costs due to activities associated with the initiation of the MDNA11 Phase 1/2 ABILITY Study. Activity during the year ended March 31, 2021 was primarily related to close-out of the bizaxofusp Phase 2b clinical program;
- higher salary and benefits costs associated with a higher headcount necessary to support increased activities; and
- decrease in licensing costs, due to market research studies completed in the year ended March 31, 2021.

The above increases were partially offset by the reimbursement of previously incurred expenses with respect to the CPRIT grant of $1.8 million, and refundable tax credits of $0.7 million in the year ended March 31, 2022, compared with $nil in the year ended March 31, 2021.

General and Administrative ("G&A") Expenses

	2023	2022	2021
	$	$	$
General and Administration Expenses			
Depreciation expense	**5**	37	40
Stock based compensation	**866**	949	614
Facilities and operations	**582**	384	304
Public company expenses	**4,603**	5,424	4,677
Salaries and benefits	**943**	963	890
	6,999	7,757	6,525

G&A expenses of $7.0 million were incurred during the year ended March 31, 2023, compared with $7.8 million during the year ended March 31, 2022, and $6.5 million in the year ended March 31, 2021.

The decrease in G&A expenses in the year ended March 31, 2023, compared to the year ended March 31, 2022, primarily relates to a reduction in directors and officers liability insurance premiums.

The increase in G&A expenditures in the year ended March 31, 2022, compared to March 31, 2021 is primarily attributed to increased directors and officers' liability insurance premiums due to 12 months of expense in the year ended March 31, 2022, compared with eight months of expense in the year ended March 31, 2021. Salaries and benefit expenses increased in the year ended March 31, 2022 due to increased headcount to support ongoing operations. Stock based compensation expenses increased due to timing and Black-Scholes value of option grants.

RESULTS OF OPERATIONS FOR THE THREE MONTHS ENDED MARCH 31, 2023

Research and Development Expenses

	Three months ended March 31, 2023	Three months ended March 31, 2022
	$	$
Research and Development Expenses		
Chemistry, manufacturing, and controls	**220**	253
Regulatory	**144**	44
Discovery and pre-clinical	**108**	619
Clinical	**802**	366
Salaries and benefits	**427**	698
Licensing, patent, legal fees and royalties	**556**	(50)
Stock based compensation	**53**	(44)

Refundable tax credits	**(748)**	(700)
Other research and development expenses	**24**	5
	1,586	1,191

R&D expenses of $1.6 million were incurred during the three months ended March 31, 2023, compared with $1.2 million incurred in the three months ended March 31, 2022.

The increase in R&D expenses in the three months ended March 31, 2023, compared to the three months ended March 31, 2022 is primarily attributable to:

- higher clinical costs as more patients were enrolled in MDNA11 ABLILITY Study in the current year period;
- increased stock based compensation due to forfeiture of options in the prior year quarter; and
- increased licensing and patent legal fees, related to timing as well as intellectual property activities in the current year quarter.

The above increases were partially offset by lower discovery and pre-clinical expenses, due to timing of ongoing work on the BiSKIT platform.

General and Administrative Expenses

	Three months ended March 31, 2023	Three months ended March 31, 2022
	$	$
General and Administration Expenses		
Depreciation expense	**1**	7
Stock based compensation	**142**	273
Facilities and operations	**160**	93
Public company expenses	**1,016**	1,308
Salaries and benefits	**66**	255
	1,385	1,936

G&A expenses of $1.4 million were incurred during the three months ended March 31, 2023, compared with $1.9 million during the three months ended March 31, 2022.

The decrease in G&A expenses primarily relates to a reduction in directors and officers liability insurance premiums and a decrease in stock-based compensation due to timing and value of option in the current year period, compared to prior year period.

SUMMARY OF QUARTERLY FINANCIAL RESULTS:

	Mar. 31 2023	Dec. 31 2022	Sep. 30 2022	Jun. 30 2022	Mar. 31 2022	Dec. 31 2021	Sep. 30 2021	Jun. 30 2021
	$	$	$	$	$	$	$	$
Revenue	-	-	-	-	-	-	-	-
General and administration	1,385	1,976	1,719	1,919	1,936	1,990	1,964	1,867
Research and development	1,586	2,945	2,362	2,411	1,191	2,907	6,269	4,349
Change in fair value of warrant derivative	1,200	(3,747)	(1,800)	-	-	-	-	-
Net loss	(3,856)	(1,141)	(896)	(4,155)	(3,206)	(4,807)	(8,178)	(6,386)
Basic and diluted loss per share	(0.06)	(0.02)	(0.01)	(0.07)	(0.06)	(0.09)	(0.15)	(0.12)
Total assets	36,446	38,174	42,560	20,140	23,456	26,107	30,093	37,336
Total liabilities	6,960	4,949	8,644	2,147	2,621	2,351	5,431	4,958

R&D expenses fluctuate quarter over quarter based on activities ongoing during that period. The higher expenditures from the quarter ended March 31, 2021 through to the quarter ended September 30, 2021 were primarily related to one-time higher CMC costs, associated with the scale-up GLP and GMP manufacturing of MDNA11 which was predominantly completed in the quarter ended September 30, 2021. Refundable tax credits of $0.7 million contributed to a decrease in R&D expenses during the quarter ended March 31, 2022 and during the quarter ended March 31, 2023. R&D expenses increased in the quarter ended December 31, 2022 due to timing of activity in the MDNA11 ABILITY study.

G&A expenses have remained relatively consistent quarter over quarter with the exception of the quarter ended September 30, 2022 whereby directors and officers' liability insurance annual premium decreased on renewal and in the quarter ended December 31, 2022, due to one-time warrant amendment fees expense (non-cash).

There was a non-cash change in the fair value of the warrant derivative (gain) totalling $1.8 million in the quarter ended September 30, 2022, and $3.7 million in the quarter ended December 31, 2022, offset by a warrant derivative loss of $1.2 million for the quarter end March 31, 2023.

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 $81.1 million as of March 31, 2023. 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 bizaxofusp, MDNA11 and the BiSKITs™ platform and the commercialization of bizaxofusp 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 12 months without further financing. The Company's cash is expected to fund operations through calendar Q3 2024.

CASH POSITION

At March 31, 2023, we had a cash and cash equivalents balance of $33.6 million, compared to $20.5 million at March 31, 2022. We invest cash in excess of current operational requirements in highly rated and liquid instruments. Working capital at March 31, 2023 was $32.6 million (March 31, 2022 - $20.8 million). These funds are expected to provide the Company with sufficient capital to execute its current planned expenditures through the completion of the ABILITY study and through calendar Q3 2024 based on its current plans and projections.

On August 11, 2022, pursuant to an underwritten public offering, we sold 13,333,334 units at a purchase price of US$1.50 per unit for gross proceeds of US$20.0 million ($25.6 million). Each unit included one Common Share with a fair value of US$1.06 and one Common Share purchase warrant with a fair value of US$0.44. Each Common Share purchase warrant entitles the holder to purchase one Common Share at an exercise price of US$1.85 until August 9, 2027. We incurred transaction costs of $2.2 million (US$1.7 million) of which $1.6 million (US$1.2 million) were allocated to share issue costs and $0.6 million (US$0.5 million) were allocated to operating expenses, based on their relative fair values.

On February 17, 2023, the Company entered into the 2023 ATM Agreement for our 2023 ATM offering US$10.0 million. We plan to use the net proceeds of the 2023 ATM Facility for general corporate purposes including, but not limited to working capital expenditures, research and development expenditures, and clinical trial expenditures. As of March 31, 2023, no Common Shares have been sold under the 2023 ATM Facility. As of March 31, 2023, US$10.0 million remained available under the 2023 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 bizaxofusp. As of March 31, 2022, all of the US$14.1 million had been received and the grant with CPRIT was complete.

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 bizaxofusp until aggregate royalty payments equal 400% of the grant funds received at which time the ongoing royalty will be 0.5% of revenues. 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.

Refundable tax credits

The Company is entitled to receive $0.7 million through our Australian R&D incentive program relating to the year ended March 31, 2023 (March 31, 2022: $0.7 million). The amount receivable was recorded as a reduction in research and development expenses in the year ended March 31, 2023.

Intellectual Property

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 of March 31, 2023, the Company is obligated to pay the following:

- 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.

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

Future commitments

As of March 31, 2023, 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	$ 473	$ 1,069	$ -	$ 1,543

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

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, former Chief Scientific Officer) and directors, received the following compensation for the following years:

	2023	2022	2021
	$	$	$
Salaries and wages	**1,059**	1,555	1,501
Board fees	**322**	285	230
Stock option expense	**1,181**	886	797
	2,562	2,726	2,528

As at March 31, 2023, the Company had trade and other payables in the normal course of business, owing to directors and officers of $0.1 million (2022: $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 Annual Financial Statements and available on SEDAR at www.sedar.com and included in the Annual Report on Form 20-F filed on 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 at www.sedar.com and included in the Annual Report on Form 20-F filed on 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 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 year end.
- Other receivables, prepaids and deposits are measured at amortized cost less impairments.
- Accounts payable, and accrued liabilities are measured at amortized cost.

The Company has 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 the Company maintaining sufficient cash in excess of anticipated needs. As at March 31, 2023, 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, 2023 of $2.3 million (March 31, 2022 - $0.6 million).

Balances in thousands of US dollars are as follows:

	March 31, 2023	March 31, 2022
	US$	US$
Cash and cash equivalents	**18,250**	5,456
Accounts payable and accrued liabilities	**(1,598)**	(1,269)
	16,652	4,187

(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.

2020 PUBLIC OFFERING AND USE OF PROCEEDS

The following table provides an update on the anticipated use of proceeds raised as part of the 2020 Public Offering, which was completed on March 17, 2020 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 March 31, 2023, the following expenditures had 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	$ 9,165	–	$ 3,985
General corporate and working capital purposes	$ 11,350	$ 11,350	–	-
Total	**$ 32,200**	**$ 28,215**	**$ –**	**$ 3,985**

2022 PUBLIC OFFERING AND USE OF PROCEEDS

The following table provides an update on the anticipated use of proceeds raised in the 2022 Public Offering along with amounts actually expended. As of March 31, 2023, the following expenditures had been incurred (in thousands of US dollars):

Item	Amount to Spend	Spent to Date	Adjustments	Remaining to Spend
Phase 1/2 MDNA11 ABILITY Study	US$ 8,000	–	–	US$ 8,000
Pre-clinical development of a BiSKIT candidate	US$ 8,000	US$ 297	-	US$ 7,703
Total	**US$ 16,000**	**US$ 297**	**$ –**	**US$ 15,703**

ATM FACILITIES

On December 30, 2020, the Company entered into the 2020 ATM Agreement, pursuant to which the Company could 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. This agreement expired on December 30, 2022. During the year ended March 31, 2023, the Company issued 656,656 Common Shares, raising total gross proceeds of $1.0 million under the 2020 ATM Facility. During the year ended March 31, 2022, the Company issued 1,748,600 Common Shares, raising total gross proceeds of $3.9 million under the 2020 ATM Facility.

On February 17, 2023, the Company entered into the 2023 ATM Agreement, pursuant to which the Company may, from time to time sell, through an at-the-market offering on the Nasdaq such number of Common Shares as would have an aggregate offering price of up to US$10.0 million. During the year ended March 31, 2023, the Company did not issue any shares on this 2023 ATM Facility.

RISKS AND UNCERTAINTIES

The Company is an immunotherapy company that operates in a highly competitive industry that is dependent on a number of factors that include the Company's capacity to raise additional funding on reasonable terms when necessary, secure partnerships for the development of its product candidates, obtain necessary regulatory approvals and achieve market acceptance, face disruption in availability of key

components for ongoing clinical studies, obtain positive results from pre-clinical and clinical studies, successfully develop existing and new products, hire and retain skilled staff and key personnel, rely on third-party providers, protect its intellectual property and face litigation risk in connection thereof. An investment in the Common Shares is subject to a number of risks and uncertainties, including the risks related to the Company being a foreign private issuer.

In addition, the Company may, from time to time, announce or publish preliminary or interim data from its clinical trials. Preliminary and interim data remains subject to audit and verification procedures that may result in the final data being materially different from the preliminary or interim data. Preliminary and interim results of a clinical trial are not necessarily predictive of final results. There can be no assurance that favorable interim or preliminary data will result in favorable final data. Preliminary and interim data are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues, patient data are further examined and reviewed, more patient data become available, and the Company prepares and issues its final clinical study report. As a result, preliminary and interim data should be viewed with caution until the final, complete data are available. Material adverse changes in the final data compared to the preliminary or interim data could significantly harm the Company's business, prospects, financial condition and results of operations.

An investor should carefully consider these risks, as well as the risks described in the Company's Annual Information Form and the Annual Report on Form 20-F filed with the SEC, as well as the other information filed with the securities regulators before investing in the Common Shares. If any of such described risks occur, or if others occur, the Company's business, financial condition and the results of operations could be seriously harmed and investors could lose all or part of their investment.

There are important risks which management believes could impact the Company's business. For information on risks and uncertainties, please also refer to the "Risk Factors" section of the Company's most recent Annual Information Form filed on SEDAR at www.sedar.com and included in the Annual Report on Form 20-F filed on EDGAR at www.sec.gov/edgar.

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, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

As of March 31, 2023, the Company's management 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	69,637,469
Warrants	16,185,386
Stock options	5,610,353
Total	**91,433,208**

For a detailed summary of the outstanding securities convertible into, exercisable or exchangeable for voting or equity securities of Medicenna as at March 31, 2023, refer to notes 9, 10, and 11 of the Annual Financial Statements of the Company.

Additional information relating to the Company, including the Company's Annual Report on Form 20-F, is available under the Company's profile on SEDAR at www.sedar.com and EDGAR at www.sec.gov, respectively.