
# *Management's Discussion and Analysis*

## *For the Three and Six Months Ended September 30, 2023*

**DATE OF REPORT: November 13, 2023**

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following management's discussion and analysis ("MD&A") has been prepared as at November 7, 2023 for the three and six months ended September 30, 2023 and should be read in conjunction with the unaudited interim condensed consolidated financial statements of Medicenna Therapeutics Corp. for the three and six months ended September 30, 2023 and September 30, 2022, and the audited annual consolidated financial statements and accompanying notes for the year ended March 31, 2023 (the "Annual Financial Statements"), which 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 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 on June 27, 2023.

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, the T-MASK™ 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 ("CTCSA") 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 United States Food and Drug Administration ("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;
- foreign currency exchange risks relating to the relative value of the United States dollar;
- 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, financial and capital market volatility and labor challenges; the negative effect of adverse conditions associated with the continued evolution of 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**

Medicenna Therapeutics is a clinical-stage immunotherapy company developing engineered cytokines, called Superkines, designed to improve the specificity, function and safety profile of unmodified interleukins. Medicenna's Superkine Platform transforms Superkines into multi-functional therapies that modulate, dampen, amplify or fine-tune the immune system.

Medicenna's mission is to harness the power of directed evolution to develop novel immunotherapies that have the potential to revolutionize the treatment landscape in oncology and other immune-related diseases.

Medicenna owns diverse platforms licensed from Stanford University ("Stanford") to develop a pipeline of Superkine candidates: 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. 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, checkpoint inhibitors, and even other Superkines to incorporate two synergistic therapeutic activities into one molecule, creating novel Bi-specific SuperKine ImmunoTherapies and Targeted Metalloprotease Activated SuperKines, referred to by Medicenna as BiSKITs™ and T-MASK™, respectively.

Medicenna's most advanced candidate is MDNA55, or bizaxofusp, 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 successfully completed a Phase 2b trial for rGBM and holds FastTrack and Orphan Drug status from the U.S. Food and Drug Administration (FDA) and FDA/European Medicines Agency, respectively.

Our second clinical program is MDNA11, a next-generation long-acting beta-enhanced not-alpha IL-2 super agonist. MDNA11 comprises a molecule of human albumin that accumulates in tumors and augments MDNA11's half-life. MDNA11 is currently being evaluated in the ABILITY Phase 1/2 study in patients with melanoma and other solid cancers. The ABILITY study is a global, multi-center, open-label study that will assess the safety, tolerability and anti-tumor activity of MDNA11 as monotherapy or in combination with pembrolizumab (Keytruda®) under a clinical collaboration with Merck. MDNA11 has successfully completed Phase 1 with a favourable safety profile and demonstrated signs of efficacy in the monotherapy setting. The monotherapy recommended dose for expansion (RDE) for MDNA11 has been established and enrollment in the phase 2 portion of the ABILITY trial is currently underway.

Our earlier stage candidates from the BiSKITs™ and T-MASK™ platforms are in pre-clinical development and are expected to enter first in human clinical trials in 2025.

## RECENT ACHIEVEMENTS & HIGHLIGHTS

The following are the achievements and highlights for the three months ended September 30, 2023 through to the date hereof:

- On November 6, 2023, Medicenna announced encouraging single-agent activity from the dose escalation and evaluation portion of the ABILITY-1 study in advanced cancer patients receiving doses ≥ 60 µg/kg of MDNA11 (N = 15) who had previously failed immune check-point inhibitor therapies. The results included ongoing partial responses with 100% and 70% reduction of target lesions in pancreatic and melanoma cancer patients, respectively, in addition to durable stable disease in 3 melanoma patients (> 20 to 80 weeks). This data was presented at the 38th Annual Meeting of the Society for Immuotherapy of Cancer ("SITC") held in San Diego. See *Research & Development Update – MDNA11* for clinical updates.

- On November 3, 2023, the Company presented preclinical data on its first-in-class IL-13Rα2 targeted candidate, MDNA113, from its T-MASK platform, which delivers a masked bispecific anti-PD1-IL2 Superkine to IL-13Rα2 expressing tumors (annual incidence of over 2 million)[1] where it is activated by cancer specific enzymes. This data was presented at the 38th Annual Meeting of the SITC held in San Diego. See *Research & Development Update – T-MASK Platform* for research updates.

- On November 2, 2023, the trading of the Company's common shares on the Nasdaq Capital Market ("Nasdaq") was suspended as a result of the Company's failure to comply with the US$1.00 per share minimum bid price requirement. Form 25-NSE was filed with the United States Securities and Exchange Commission, which will remove the Company's securities from listing and registration on Nasdaq (the "Nasdaq Delisting"). The Company's common shares continue to trade on the Toronto Stock Exchange. Following the Nasdaq Delisting, the Company has applied to have its common shares traded on the OTC Markets.

- On October 27, 2023, Medicenna announced that it was delisted from the Nasdaq as the Company did not meet the listing requirements, that it is reducing its presence in the US to conserve cash, and that Jeff Caravella, Chief Financial Officer, and Brent Meadows, Chief Business Officer, departed the Company, effective October 26, 2023.

- On October 25, 2023, Medicenna announced dosing of the first patient in the Phase 2 monotherapy dose expansion portion of the ABILITY-1 Study.

- On October 10, 2023, the Company announced the appointment of Humphrey Gardner, M.D., as the global Chief Medical Officer (CMO) to lead the development strategy and execution of Medicenna's clinical programs. Dr. Gardner brings over 20 years of experience in the pharma and biotech industry.

- On October 3, 2023, new preclinical data characterizing MDNA223, an anti-PD1-IL-2 BiSKIT (Bifunctional SuperKine for ImmunoTherapy), including its synergy when combined with STING agonists were presented at the 2023 AACR Special Conference in Cancer Research: Tumor Immunology and Immunotherapy held in Toronto. See *Research & Development Update – BiSKITs* for research updates.

- On August 9, 2023, the Company announced a clinical update on the MDNA11 monotherapy dose escalation portion of the first-in-human, Phase 1/2 ABILITY Study in patients with advanced solid tumors, selecting the 90 µg/kg dose administered every 2 weeks (following the step-up dosing regimen) as the recommended dose for expansion (RDE) for the Phase 2 monotherapy dose

[1] https://www.wcrf.org/cancer-trends/worldwide-cancer-data/

expansion phase of the study. *See Research & Development Update – MDNA11 for clinical updates.*

- On August 8, 2023, Dr. Arash Yavari was appointed as the Chair of Medicenna's Development Advisory Committee ("DAC"), a team comprised of industry veterans in immuno-oncology drug development and regulatory strategy.

- On August 1, 2023, the Company announced the issuance of U.S. Patent No. 11,680,090, titled "Interleukin-2 Fusion Proteins and Uses Thereof". The patent further strengthens Medicenna's intellectual property around its BiSKIT™ platform.

- On July 26, 2023, Medicenna announced the completion of the Dose-Escalation portion of the ABILITY-1 Study and clearance of the 120µg/kg dose with no protocol defined DLTs. *See Research & Development Update – MDNA11 for clinical updates.*

- On July 20, 2023, Dr. Fahar Merchant, President and CEO of Medicenna, was invited to present and participate in a Research Roundtable organized by the National Brain Tumor Society. The event, entitled, "Use of External Control Data in Brain Tumor Clinical Trials" was held in Washington, D.C.

**FINANCING UPDATE**

**Six months ended September 30, 2023**

*2023 At-The-Market Facility*

On February 17, 2023, the Company 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 as would have an aggregate offering price of up to US$10.0 million (the "2023 ATM Facility"). During the six months ended September 30, 2023, the Company did not issue any Common Shares pursuant to the 2023 ATM Facility.

Further to the Nasdaq Delisting, the 2023 ATM Agreement was terminated.

*Warrants*

During the six months ended September 30, 2023, no warrants were exercised.

On July 17, 2023, the expiry date of an aggregate of 1,549,052 outstanding warrants issued on October 17, 2019 as part of a public offering of an aggregate of 5,307,693 units of the Company, was extended from July 17, 2023 to October 17, 2024.

***Six months ended September 30, 2022***

*2020 At-The-Market Facility*

On December 30, 2020, the Company entered into a sales agreement with SVB Leerink LLC acting as sales agent, pursuant to which the Company may, from time to time sell, through at-the-market ("ATM") offering on the Nasdaq such number of Common Shares as would have an aggregate offering price of up to US$25.0 million, which expired on December 30, 2022. The Company plans to use the net proceeds of the ATM offering for general corporate purposes including, but not limited to working capital expenditures, research and development expenditures, and clinical trial expenditures. During the six months ended September 30, 2022, the Company issued 656,656 common shares for gross proceeds of US$0.8 million

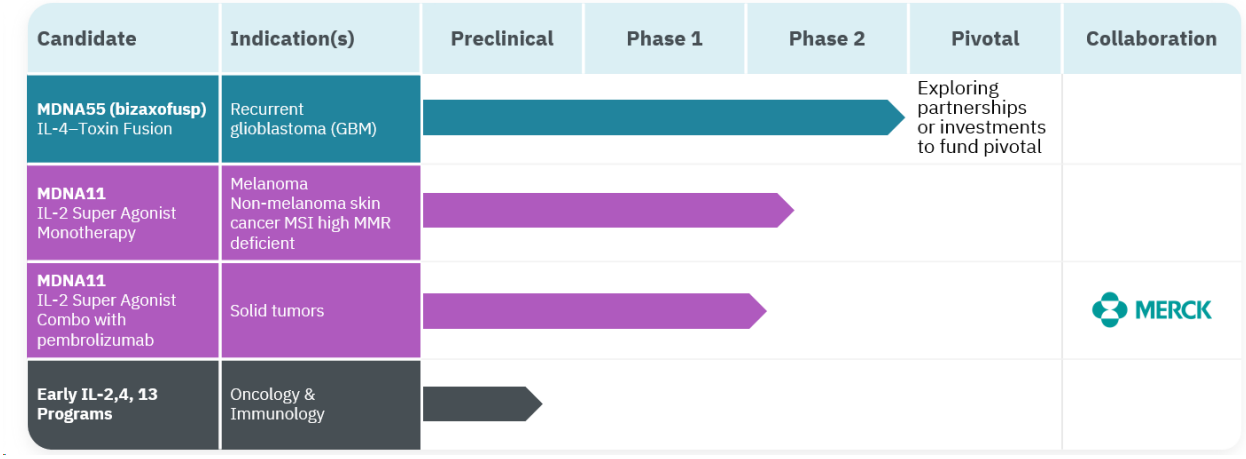
at an average price of US$1.20. The Company received, net of commissions, US$0.7 million. In total, the Company incurred share issuance costs (including commissions) of US$0.1 million.

*Warrants*

During the six months ended September 30, 2022, no warrants were exercised.

## RESEARCH & DEVELOPMENT UPDATE

### Our Pipeline of Superkines




### Bizaxofusp (formerly named MDNA55) for the treatment of recurrent Glioblastoma

Glioblastoma (GBM) is one of the most complex, deadly, and treatment-resistant cancers. In 2023 it is expected that in the US and Canada, there will be at least 15,000 new diagnosis of GBM with more than 10,000 individuals succumbing to the disease in one year. The five-year survival rate for GBM patients is only 6.9 percent, with survival rates and mortality statistics remaining virtually unchanged for decades[2].

Despite first being identified in the scientific literature in the 1920's, there have only been four drugs and one device ever approved by the FDA specifically for the treatment of GBM. None of these treatments have succeeded in significantly extending patient lives beyond a few extra months for newly diagnosed GBM and a few extra weeks for patients with recurrent GBM (rGBM). Glioblastoma is also one of the more expensive cancers to treat, often leaving patients and families with major financial hardship on top of the burdens of the disease. Given the limitation of all current therapeutics, the development of novel approaches to treating glioblastoma and rGBM, remains a great unmet need.

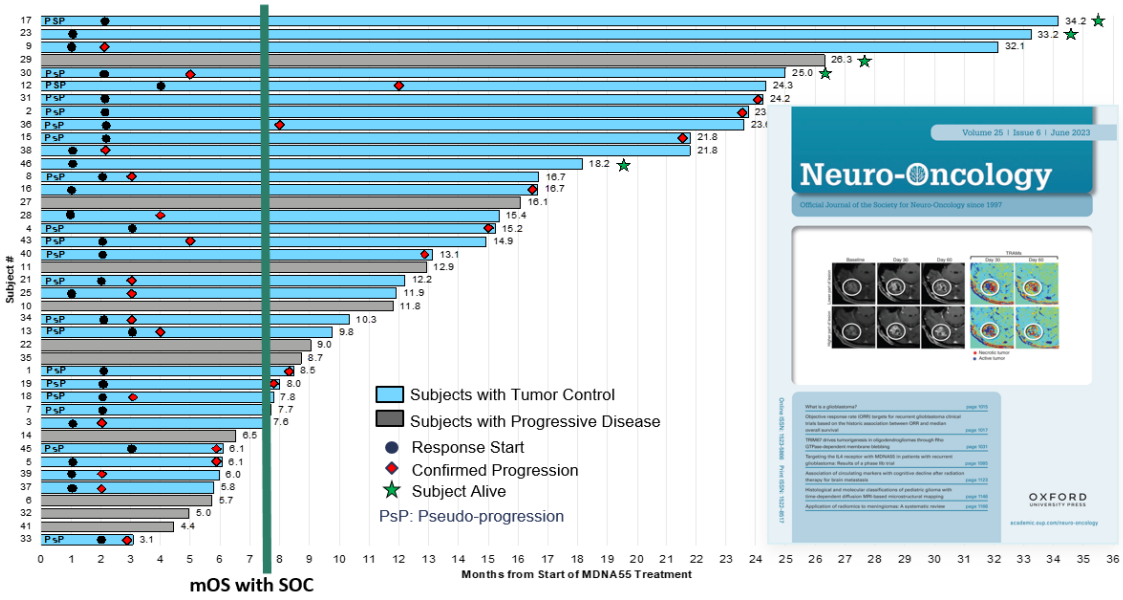
Bizaxofusp is a fusion of a circularly permuted version of IL-4, fused to a potent fragment of the bacterial toxin, Pseudomonas exotoxin, and is designed to preferentially target tumor cells that over-express the interleukin 4 receptor ("IL-4R"). Bizaxofusp is delivered locally into the tumor, bypassing the blood-brain barrier. Bizaxofusp holds a FastTrack and Orphan Drug status from the U.S. Food and Drug Administration (FDA) and FDA/European Medicines Agency, respectively.

Bizaxofusp has successfully completed a Phase 2b (N=44) trial for recurrent glioblastoma where it has doubled the Overall Survival (OS) versus the Standard of Care (SOC). The Phase 2b clinical trial was completed in a multi-center, open-label, single-arm study in patients with first or second recurrence or

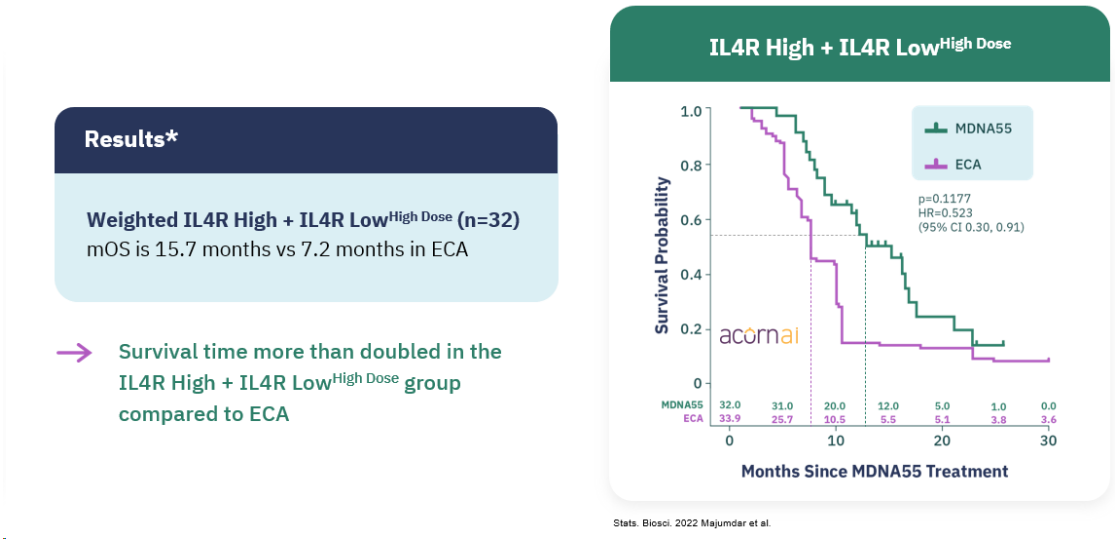
[2] https://braintumor.org/events/glioblastoma-awareness-day/about-glioblastoma/

progression of GBM after surgery or radiotherapy ± adjuvant therapy or other experimental therapies. Results were published in the NeuroOncology Journal, in June 2023 (doi: 10.1093/neuonc/noac285).

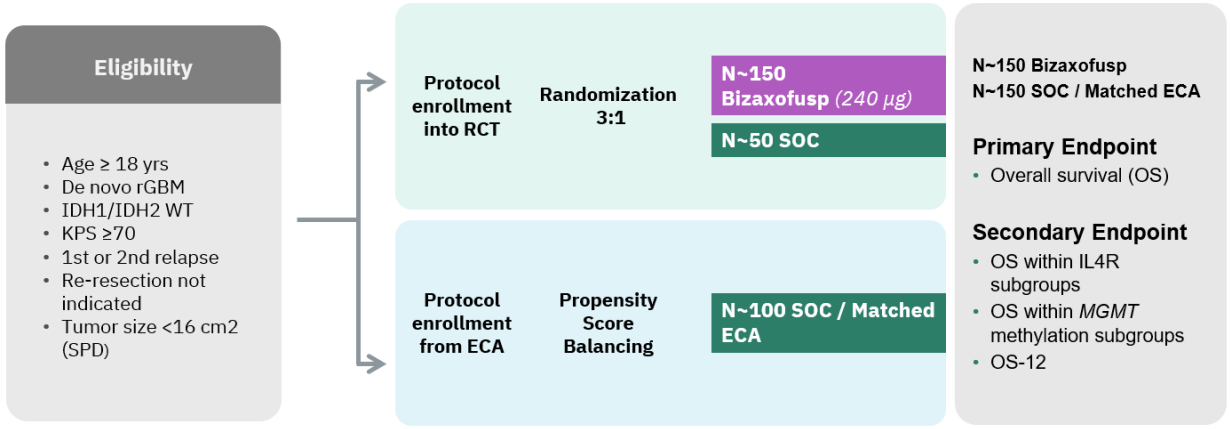
## Bizaxofusp Doubled Survival vs. Standard of Care (SOC) in rGBM Patients




A separate analysis collected rGBM survival and prognostic data from 81 patients who had contemporaneously received treatment at major clinical centres using current SOC. This data from patient registries 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. In this study, bizaxofusp demonstrated an improvement of 100% in median Overall Survival (mOS) versus the ECA as shown in the figure below. Follow-up results from the study are to be presented at the 28th Annual Meeting of the Society of NeuroOncology in Vancouver on November 16-19, 2023.




Following the End of Phase 2 (EOP2) meeting, the FDA endorsed an innovative open-label hybrid Phase 3 trial that allows the use of a substantial number of patients (two-thirds) from a matched ECA to support marketing authorization of bizaxofusp for rGBM (see the graphic below).



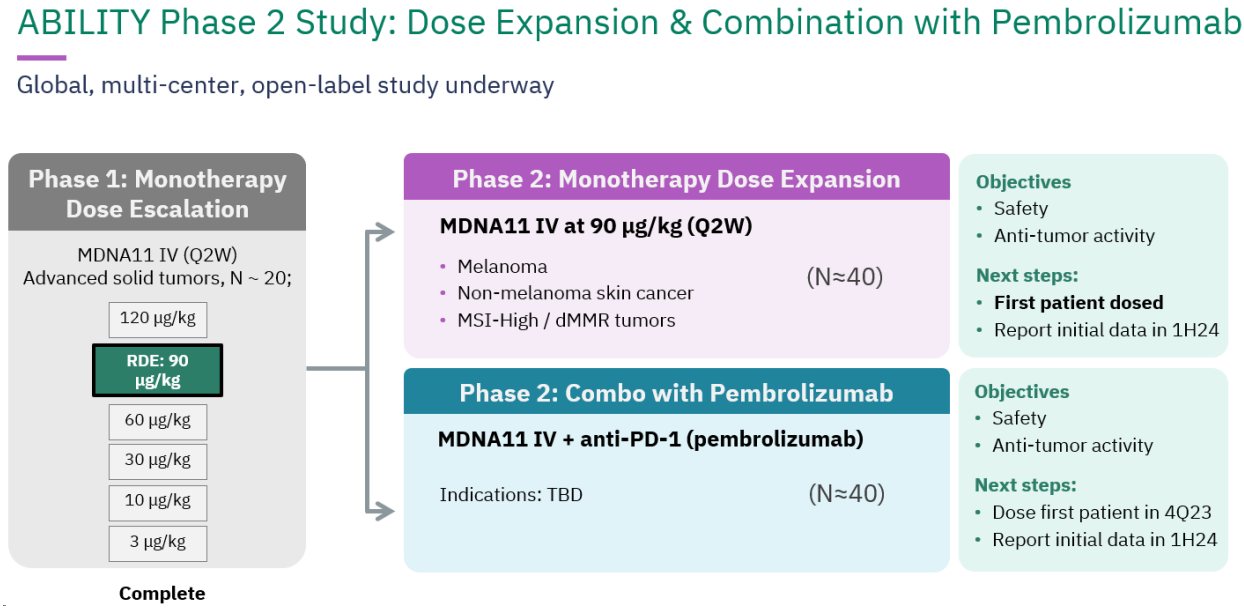

**SOC therapies allowed:** Bevacizumab (Avastin®), Lomustine (CCNU, CeeNU®, Gleostine™), Temozolomide (Temodar®), Tumor Treating Fields (Optune®), and Radiation Therapy

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. During the six months ended September 30, 2023, the Company has spent $0.3 million related to the bizaxofusp program and estimates that the total costs of completion of a pivotal registrational trial, associated regulatory and manufacturing activities and preparing bizaxofusp for commercial launch to be approximately $60 to $80 million.

Through confidential primary market research conducted for the Company, bizaxofusp has a market potential of more than US$800M annually for glioblastoma alone. In addition, metastatic IL-4R positive brain tumors account for ~US$4B market.

**MDNA11**

MDNA11, a next-generation long-acting beta-enhanced not-alpha IL-2 super agonist. MDNA11 comprises a molecule of human albumin that accumulates in tumors and augments MDNA11's half-life. MDNA11 is currently being evaluated in the ABILITY Phase 1/2 study in patients with melanoma and other solid cancers. The ABILITY Study is a global, multi-center, open-label study that assesses the safety, tolerability and anti-tumor activity of MDNA11 as monotherapy or in combination with pembrolizumab (Keytruda®). The figure below describes the ABILITY Phase 1/2 study with objectives and upcoming milestones.




On August 9, 2023, Medicenna held a R&D day webcast where Dr. Arash Yavari, Chair of the Company's Development Advisory Committee (DAC), presented a clinical update on the monotherapy dose escalation portion of the ABILITY Study. Key findings from the dose escalation portion of the ABILITY Study include:

- Favorable safety profile: MDNA11 was generally well tolerated across cohorts, with the majority of adverse events (AEs) being grade 1 or 2, with no grade 4 or 5 AEs.

- Promising single-agent activity and durable tumor control: Several patients exhibited encouraging evidence of single-agent activity with tumor control observed in 7 of 19 evaluable patients (37%).

- Confirmed partial response to single-agent MDNA11 in a highly aggressive tumor type: A patient in cohort 4 (60ug/kg dose) with metastatic pancreatic ductal adenocarcinoma (PDAC), who had failed to respond to multiple prior systemic therapies, continues to show tumor shrinkage of all metastatic lesions in the liver after each successive scan. The most recent scan showed an 80% decrease in total tumor size with complete regression of 2 out of 3 lesions. This patient continues on study treatment with MDNA11.

- Prolonged stable disease in metastatic melanoma progressed on prior immune checkpoint inhibition: A patient in cohort 2 (commenced on 10 ug/kg dose and subsequently increased to 30, 60 and 90 ug/kg), having failed prior immunotherapy, experienced stable disease for 84 weeks.

- Pharmacodynamic data on effector anti-tumor immune cells continue to support the mechanistic rationale for MDNA11's promising anti-tumor activity, with MDNA11 inducing robust expansion of a population of potent activated $CD8^{+}$T cells and increasing NK cells, but with limited expansion of Tregs which can suppress anti-tumor immunity.

Based on the totality of the dose escalation data, a Recommended Dose Expansion (RDE) of 90 ug/kg given every other week by IV infusion has been chosen for the monotherapy expansion phase of the trial.

Selection of specific cancers for evaluation in the monotherapy dose expansion phase was determined based on clinical data available from the ABILITY-1 Study, discussions with Medicenna's Clinical Advisory Board ("CAB") and other expert KOLs, and an understanding of the immunobiology of the selected tumor types and the potential for MDNA11 monotherapy in the post-checkpoint inhibitor setting. The following tumor types will be recruited in the dose expansion phase of the study:

- Melanoma
- Non-Melanoma Skin Cancers
- Microsatellite Instability-High (MSI-H) or deficient DNA mismatch repair (dMMR) cancers**.** This population was selected to determine if the response achieved in the PDAC patient may have been due to the MSI-H profile. The PDAC patient unequivocally progressed on Keytruda, which is approved for MSI-H cancers.

On October 25, 2023, Medicenna reported that the first patient was dosed in the monotherapy dose expansion portion of the study. The combination dose expansion with pembrolizumab is expected to begin before the end of calendar 2023. Preliminary data from the dose expansion study is expected to be presented in the first half of calendar 2024.

At the 38$^{th}$ Annual Meeting of the SITC held in San Diego held from November 1-5, 2023, Medicenna presented an update from the Phase 1/2 ABILITY Study. Key clinical data are summarized below and also shown graphically:

- MDNA11 continues to demonstrate encouraging single-agent activity from the dose escalation and evaluation portion of the ABILITY-1 study, including ongoing partial response with 100% reduction of target and non-target lesions in one pancreatic cancer patient and 70% reduction of target lesion at first on-study evaluable scan in one melanoma patient.

- MDNA11 showed durable stable disease in 3 melanoma patients for longer than 5 months, with one patient showing durable stable disease for 18 months, with concomitant shrinkage of target lesions, following prior failure with immune check-point therapies.

- At dose levels above 60 μg/kg, MDNA11 achieved a disease control rate of 33.3% (2 PRs and 3 durable SDs in 15 patients).

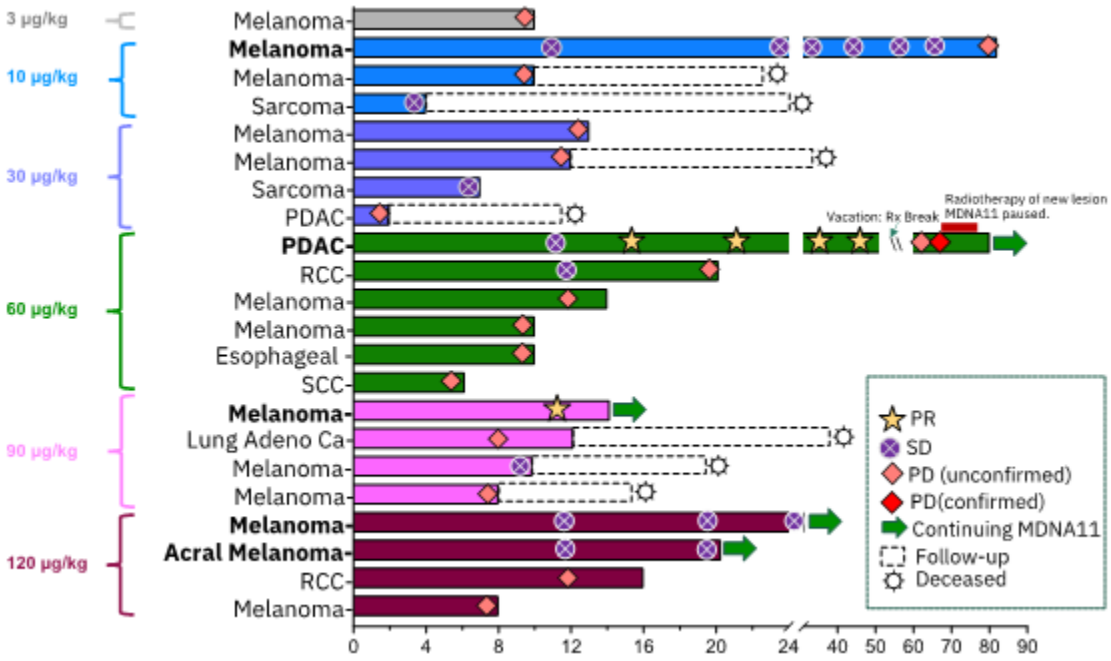
- MDNA11 is generally well tolerated with no dose-limiting toxicities for vascular leak syndrome reported in any of the monotherapy dose escalation cohorts.

- Vast majority (95.6%) of treatment related adverse events were grade 1-2 severity and resolved within 48 hours; grade 3 TRAEs mainly constituted transient LFT elevations; no grade 4 or 5 events were reported.

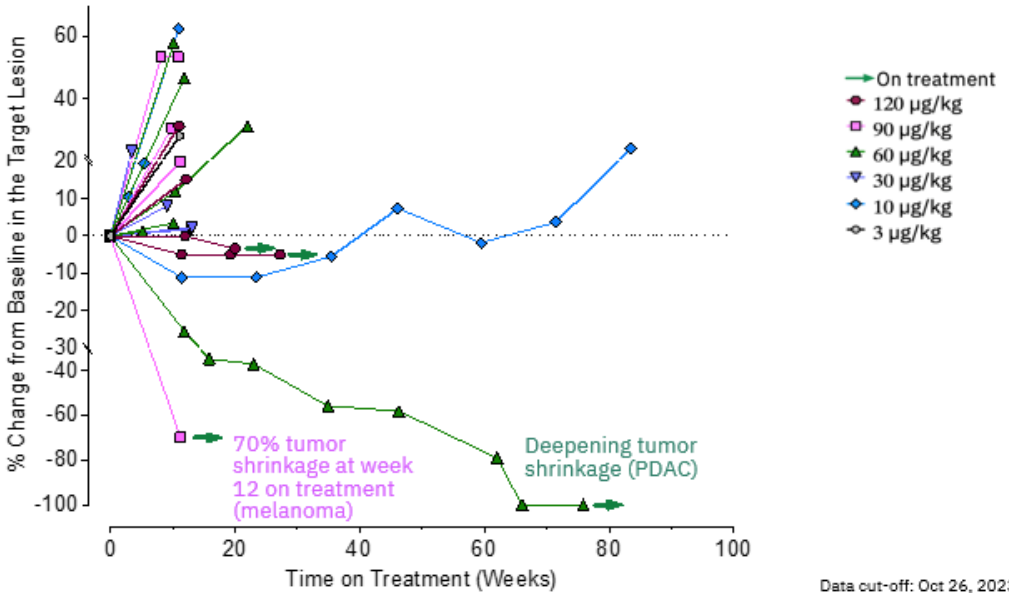
- Pharmacodynamic response showed robust expansion and activation (CD25 and OX40) of $CD8^+$ T cells with some expansion of NK cells and limited increase in number of immune-suppressive Treg cells, in all dose cohorts and particularly at 90 μg/kg.

- Target dose of 90 μg/kg (following 2 step-up doses of 30 and 60 μg/kg) Q2W by IV infusion was chosen as the Recommended Dose for Expansion (RDE) in the monotherapy expansion portion of the ABILITY study.

**2 Partial Responses (PR) and 3 Durable Stable Diseases (SD) with single-agent MDNA11:**




## MDNA11: Single-Agent Anti-Tumor Activity in Pre-treated Cancer Patients




In addition to general clinical expenses, which are distributed amongst the various clinical projects, $12.4 million is currently estimated to be allocated to the Phase 2 monotherapy dose expansion trial and the Phase 2 combination trial with Merck's pembrolizumab. In the six months ended September 30, 2023, $2.8 million has been spent and a total of $5.8 million is estimated to be spent in fiscal 2024.

## IL-4 and IL-13 Superkines in preclinical development

Medicenna's IL-4 and IL-13 Superkines, licensed from Stanford, are engineered cytokines which possess enhanced affinity and selectivity for either the Type 1 or Type 2 IL-4 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 signalling (super-agonists) or the ability to block signalling (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 a 2,000-fold higher selectivity for the Type 2 IL4R and potently blocks IL-4 and IL-13 signalling (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 tumor microenvironment, which shields cancer from the immune system.

We believe that MDNA413's ability to block IL-4/IL-13 signalling 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 tumor microenvironment ("TME").

*MDNA132 and MDNA213: High Affinity Cancer-Specific Targeting Ligands*

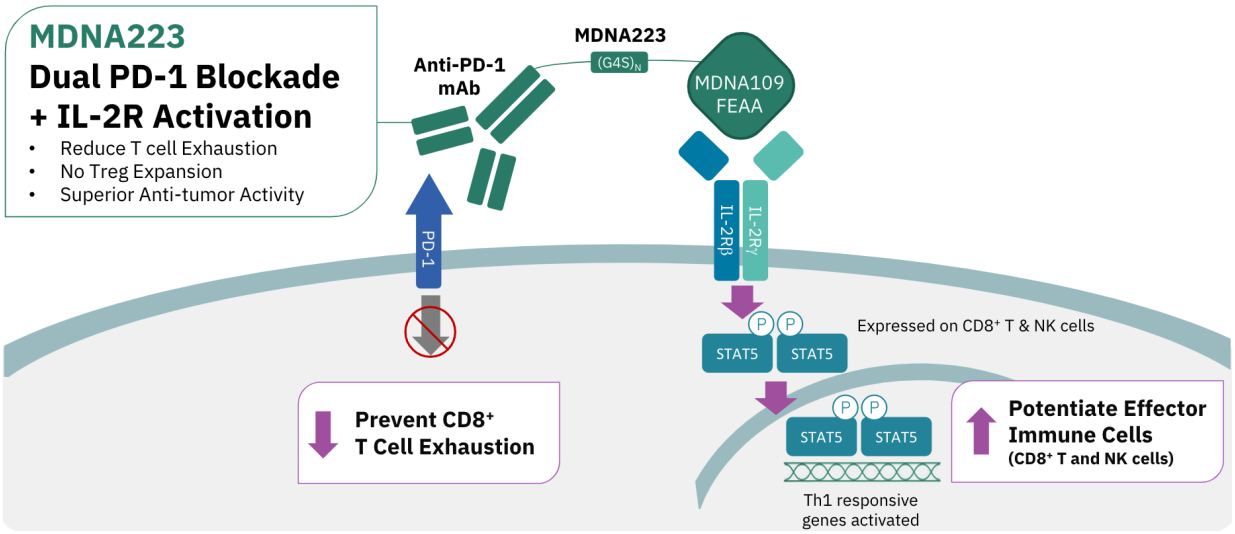
Another promising IL-13 Superkine is MDNA132, and its variant, MDNA213. Unlike MDNA413, MDNA132 and MDNA213 are IL-13 ligands that have been engineered to increase affinity for IL13Rα2 overexpressed on certain solid tumors while exhibiting sharply decreased affinity for IL13Rα1. Medicenna believes MDNA132 and MDNA213 have 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 potential fusion proteins in our BiSKITs™ and the T-MASK™ platforms.

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 in Orlando, Florida, from April 14 to 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 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.

## 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™.

MDNA223 is a fusion of Medicenna's IL-2 Superkine with an anti-PD1 antibody, designed to maximize anti-tumor response by concurrently facilitating IL-2R pathway stimulation and PD1 checkpoint blockade on the same effector immune cell as described in the figure below.




On October 3, 2023, we presented a poster at the AACR Special Conference in Cancer Research: Tumor Immunology and Immunotherapy with preclinical data demonstrating that the MDNA223 BiSKIT:

- Showed enhanced IL-2Rbeta selectivity and no binding to IL-2Ralpha, leading to preferential stimulation of CD8+ T cells over Tregs in human PBMCs,
- Retained high affinity to PD-1, generating potent blockade of PD-1/PD-L1 mediated exhaustion of T cells,
- Induced durable proliferation and expansion of CD8+ T cells in the periphery, and enhanced tumor infiltration of functionally active CD8+ T cells,
- Demonstrated superior efficacy and survival benefit in multiple syngeneic tumor models, including “cold” tumors compared to co-administration (combination) of anti-PD1 and IL-2 agonist,
- Synergized with agonist of the STING (Stimulator of Interferon Genes) pathway to enhance tumor inhibition and promote an abscopal effect as demonstrated by shrinkage of the untreated tumor on opposite flank,
- Enhanced tumor response while being well-tolerated in a step-up dosing setting.
- The sum of encouraging preclinical data on MDNA223 highlights the potential of Medicenna’s BiSKIT™ platform to broadly deliver effective therapy to otherwise challenging-to-treat ‘cold’ tumors.

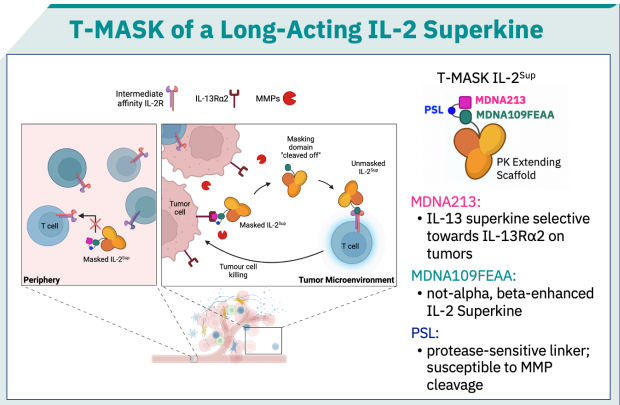
Medicenna is currently screening and optimizing a variety of IL-2/IL-4/IL-13 Superkines as part of our BiSKITs™ platform. As preparing, submitting, and advancing applications for regulatory approval, developing drugs and drug product and clinical trials are sometimes complex, costly, and time-consuming processes, an estimate of the future costs is not reasonable at this time.

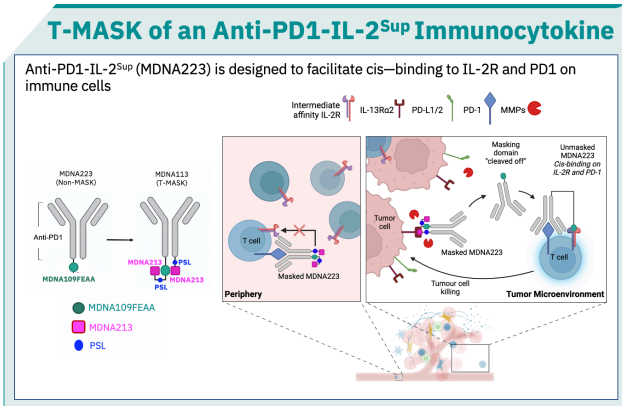
**T-MASK (Targeted Metallo/protease Activated SuperKine) Platform**

Our T-MASK platform involves fusion of a dual IL-13 tumor targeting/masking domain to an IL-2 superkine or IL-2 BiSKIT (BiFunctional SuperKine ImmunoTherapies) via a matrix metalloprotease (MMP) sensitive linker (PSL), to provide the following unique features:

- Tunable blockade of IL-2R agonism to reduce peripheral immune stimulation for enhanced tolerability
- Tumor targeting to IL-13Rα2 highly expressed in a broad range of cancer indications but not normal tissues
- Cleavage and release of IL-13 tumor-targeting/masking domain by MMPs restores IL-2R agonism within the tumor microenvironment (TME).

Proposed mechanism of action of the T-MASK platform is shown in the figures below for a long-acting IL-2 superkine (IL-2$^{Sup}$) and an IL-2 BiSKIT (MDNA223; Anti-PD1-IL-2$^{Sup}$)




At the 38th Annual Meeting of the SITC held in San Diego from November 1-5, 2023, Medicenna presented preclinical data on characterization of its T-MASK platform, exemplified by T-MASK versions of long-acting IL-2 superkine and MDNA223, an anti-PD1-IL-2 BiSKIT. Key features of the platform and preclinical data presented in the conference are summarized below:

- The IL-13 superkine acts as an effective dual tumor targeting and masking domain to selectively deliver potent immune modulators to the tumor microenvironment where they are activated by cancer specific enzymes.
- IL-13Rα2 is highly expressed in a broad range of aggressive tumors at an annual rate of more than 2M cases worldwide, and include some of the most immunologically "cold" tumors.[3]
- MDNA113 is a first-in-class IL-13Rα2 targeted therapy that delivers a masked anti-PD1-IL-2 bi-functional superkine to the tumor microenvironment.
- MDNA113 showed reduced potency in IL-2 signaling assays but activity was restored upon MMP cleavage to remove the IL-13 Mask
- Masking had no effect on blockade of PD1/PD-L1 immune suppressive signaling in vitro.
- Systemic administration of MDNA113 in mice showed reduced peripheral immune cell expansion compared to non-masked version.
- MDNA113 is as effective as its non-masked version at inhibiting tumor growth in mouse cancer models.
- The level of masking is tunable and avoids complete blockade of the immune modulator thereby retaining good tolerability while achieving adequate immune stimulation during transit to the tumor micro-environment.

Medicenna is currently screening and optimizing a variety of IL-2/IL-4/IL-13 Superkines as part of our BiSKITs™ and T-MASK platforms. Additional funding will be necessary to advance one or more of these product candidates into clinical trials. As preparing, submitting, and advancing applications for regulatory approval, developing drugs and drug product and clinical trials are sometimes complex, costly, and time consuming processes, an estimate of the future costs is not reasonable at this time.

[3] https://www.futuremedicine.com/doi/10.2217/imt.12.28

## SELECTED FINANCIAL INFORMATION

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

| | Three months ended September 30, | | Six months ended September 30, | |
|---|---|---|---|---|
| | **2023** | 2022 | **2023** | 2022 |
| **Statements of loss and comprehensive loss data:** | **$** | $ | **$** | $ |
| General and administration | **2,303** | 2,371 | **3,950** | 4,290 |
| Research and development | **3,134** | 2,362 | **5,946** | 4,773 |
| **Total operating expenses** | **5,437** | 4,733 | **9,896** | 9,063 |
| Finance income | **(342)** | (162) | **(688)** | (192) |
| Change in fair value of warrant derivative | **(960)** | (1,800) | **(2,707)** | (1,800) |
| Foreign exchange (gain) loss | **(412)** | (1,875) | **84** | (2,020) |
| **Net Loss** | **(3,723)** | (896) | **(6,585)** | (5,051) |
| Basic and diluted loss per share | **(0.05)** | (0.01) | **(0.09)** | (0.08) |

| | As of | |
|---|---|---|
| | **September 30, 2023** | **March 30, 2023** |
| **Statement of financial position:** | | |
| | **$** | $ |
| Cash | **25,687** | 33,596 |
| Total assets | **27,743** | 36,446 |
| Total liabilities | **4,306** | 6,960 |
| Working capital | **23,989** | 32,585 |
| Accumulated deficit | **(87,566)** | (80,981) |
| Total shareholder's equity (deficiency) | **23,437** | 29,486 |

The Company has not generated revenue in any of the previous fiscal years, other than income from interest earned on our cash and cash equivalents.

For the three and six months ended September 30, 2023, the Company reported a net loss of $3.7 million ($0.05 loss per share), and $6.6 million ($0.09 loss per share), compared to a net loss of $0.9 million ($0.01 loss per share) and $5.1 million ($0.08 loss per share), respectively for the three and six months ended September 30, 2022. The increase in net loss for the three and six month period ended September 30, 2023, compared with the period ended September 30, 2022, was primarily a result of increased research and development expenditures related to the clinical costs associated with the MDNA11 ABILITY-1 study, and increased licensing and patent legal fees. There was a foreign exchange gain of $0.4 million, and a loss of $0.1 million during the three- and six-month period ended September 30, 2023, compared to a gain of $1.9 million and $2.0 million, respectively in the three and six month period ended September 30, 2022, as a result of gain on USD cash and cash equivalents. There was a non-cash change in the fair value of the warrant derivative (gain) of $1.0 million, and $2.7 million for the three and six month period ended September 30, 2023, compared to a gain of $1.8 million for the three and six month period ended September 30, 2023.

## RESULTS OF OPERATIONS FOR THE THREE AND SIX MONTHS ENDED SEPTEMBER 30, 2023

### Research and Development ("R&D") Expenses

| | Three months ended September 30, | | Six months ended September 30, | |
|---|---|---|---|---|
| | **2023** | 2022 | **2023** | 2022 |
| | **$** | $ | **$** | $ |
| Clinical | **1,394** | 901 | **2,091** | 1,531 |
| Salaries and benefits | **654** | 545 | **1,154** | 1,059 |
| Licensing, patent legal fees and royalties | **442** | 275 | **857** | 436 |
| Discovery and pre-clinical | **369** | 401 | **886** | 871 |
| Chemistry, manufacturing, and controls | **275** | 45 | **771** | 540 |
| Regulatory | **23** | 9 | **50** | 37 |
| Stock based compensation | **167** | 185 | **302** | 296 |
| Research and development tax credits | **(200)** | - | **(200)** | - |
| Other research and development expenses | **10** | 1 | **35** | 3 |
| | **3,134** | 2,362 | **5,946** | 4,773 |

R&D expenses of $3.1 million and $5.9 million were incurred during the three and six months ended September 30, 2023, compared with $2.4 million and $4.8 million incurred during the three and six months ended September 30, 2022.

The increase in R&D expenses in the three and six months ended September 30, 2023, compared to the three and six months ended September 30, 2022 is primarily attributable to:

- increased licensing and patent legal fees, related to timing as well as intellectual property activities in the current year quarter;
- higher clinical costs related to the MDNA11 ABILITY-1 Study in the current year period;
- increased salaries and benefits, due to increase in headcount to support the MDNA11 ABILITY-1 Study.

### General and Administrative ("G&A") Expenses

| | Three months ended September 30, | | Six months ended September 30 | |
|---|---|---|---|---|
| | **2023** | **2022** | **2023** | **2022** |
| | **$** | **$** | **$** | **$** |
| Public company expenses | **1,350** | 1,097 | **2,420** | 2,374 |
| Salaries and benefits | **627** | 226 | **891** | 448 |
| Facilities and operations | **224** | 149 | **376** | 273 |
| Stock based compensation | **101** | 245 | **261** | 541 |
| Transaction costs, warrant derivative | **-** | 652 | **-** | 652 |
| Depreciation expense | **1** | 2 | **2** | 2 |
| | **2,303** | 2,371 | **3,950** | 4,290 |

G&A expenses of $2.3 million and $4.0 million were incurred during the three and six months ended September 30, 2023, compared with $2.4 million and $4.3 million during the three and six months ended September 30, 2022.

The decrease in G&A expenses in the three and six months ended September 30, 2023, compared to the three and six months ended September 30, 2022, was primarily attributable to a reduction in directors and officers liability insurance premiums, partially offset by higher salaries and benefits, due to increased headcount to the executive leadership team. One-time transaction costs associated with warrant derivative contributed to higher G&A expenses in the three and six months ended September 30, 2022.

## SUMMARY OF QUARTERLY FINANCIAL RESULTS:

| | Sep. 30 2023 | Jun. 30 2023 | Mar. 31 2023 | Dec. 31 2022 | Sep. 30 2022 | Jun. 30 2022 | Mar. 31 2022 | Dec. 31 2021 |
|---|---|---|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ | $ | $ | $ |
| Revenue | - | - | - | - | - | - | - | - |
| General and administration | 2,303 | 1,647 | 1,385 | 1,976 | 1,719 | 1,919 | 1,936 | 1,990 |
| Research and development | 3,134 | 2,812 | 1,586 | 2,945 | 2,362 | 2,411 | 1,191 | 2,907 |
| Change in fair value of warrant derivative | (960) | (1,747) | 1,200 | (3,747) | (1,800) | - | - | - |
| Net loss | (3,723) | (2,862) | (3,856) | (1,141) | (896) | (4,155) | (3,206) | (4,807) |
| Basic and diluted loss per share | (0.05) | (0.04) | (0.06) | (0.02) | (0.01) | (0.07) | (0.06) | (0.09) |
| Total assets | 27,743 | 31,546 | 36,446 | 38,174 | 42,560 | 20,140 | 23,456 | 26,107 |
| Total liabilities | 4,306 | 4,646 | 6,960 | 4,949 | 8,644 | 2,147 | 2,621 | 2,351 |

R&D expenses fluctuate quarter over quarter based on activities ongoing during that period. 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, the quarter ended June 30, 2023, and quarter ended September 30, 2023 due to timing of activity in the MDNA11 ABILITY Study.

G&A expenses have remained relatively consistent quarter over quarter. From the quarter ended September 30, 2022, onwards, G&A expenses decreased as directors and officers' liability insurance annual premium decreased on renewal. G&A expenses increased in the quarter ended September 30, 2023, due to increase in headcount.

There was a non-cash change in the fair value of the warrant derivative (gain) loss from the quarter ended September 30, 2022 onwards. The fair value of the warrant derivative will fluctuate quarterly due to volatility of share price, expected dividend yield and expected risk-free interest rate.

## 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 $87.6 million as of September 30, 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, the BiSKITs™ and T-MASK™ platforms 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 into Q1 of calendar 2025. The Company has the ability to reduce or eliminate planned expenditure to extend its operating runway if it is unable to obtain additional financing when required. The Company's ability to continue as a going concern into Q1 calendar 2025 is dependent on its ability to secure additional financing.

These circumstances cast substantial 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.

The following table summarizes the Corporation's cash flows for the periods indicated:

| | **Six Months ended September 30,** | |
|---|---|---|
| | **2023** | **2022** |
| Net cash (used in) provided by: | | |
| Operating activities | **(7,389)** | (6,709) |
| Financing activities | **-** | 24,813 |
| Net increase (decrease) in cash and cash equivalents | **(7,389)** | 18,104 |

Cash utilized in operating activities for the six months ended September 30, 2023 was $7.4 million, compared to the six months ended September 30, 2022 of $6.7 million. The increase in cash utilized in the six months ended September 30, 2023, compared to the six months ended September 30, 2022 is primarily as a result of increased research and development expenses and changes in working capital.

Cash provided by financing activities for the six months ended September 30, 2022 is comprised of an underwritten public offering completed on August 10, 2022 (the "August 2022 Public Offering"). Total proceeds of the August 2022 Public Offering, net of issuance costs were $23.9 million. The remaining cash provided by financing activities was from the 2020 ATM Facility.

***CASH POSITION***

At September 30, 2023, we had a cash and cash equivalents balance of $25.7 million, compared to $33.6 million at March 31, 2023. We invest cash in excess of current operational requirements in highly rated and liquid instruments. Working capital at September 30, 2023 was $23.9 million (March 31, 2023 - $32.6 million). These funds are expected to provide the Company with sufficient capital to execute its current planned expenditures through the key milestones associated with the ABILITY Study and into calendar Q1 2025 based on its current plans and projections.

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*

In July 2023, the Company received $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.

In September 2023, the Company received $0.1 million through the Canadian scientific research and experimental development (SR&ED) relating to the year end March 31, 2021. The Company is entitled to receive $0.2 million through our SR&ED program relating to the year ended March 31, 2022. The amount receivable is recorded as a reduction in research and development expenses in the three months ended September 30, 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 September 30, 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$1.7 million will be due in the next five years.

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.

## 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. Rosemina Merchant, Chief Development Officer, Jeff Caravella, former Chief Financial Officer, Brent Meadows, former Chief Business Officer, and Ms. Elizabeth Williams, former Chief Financial Officer) and directors, received the following compensation for the following periods:

| | Three months ended September 30, | | Six months ended September 30, | |
|---|---|---|---|---|
| | **2023** | 2022 | **2023** | 2022 |
| | **$** | $ | **$** | $ |
| Salaries and wages | **724** | 252 | **977** | 505 |
| Board fees | **101** | 76 | **179** | 152 |
| Stock option expense | **184** | 369 | **427** | 711 |
| | **1,009** | 697 | **1,583** | 1,368 |

As at September 30, 2023, the Company had trade and other payables in the normal course of business, owing to directors and officers of $0.4 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.sedarplus.ca 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.sedarplus.ca and included in the Annual Report on Form 20-F filed on EDGAR at www.sec.gov.

## FINANCIAL INSTRUMENTS

Financial instruments are defined as a contractual right or obligation to receive or deliver cash on another financial asset. The Company recognizes financial instruments based on their classification. Depending on the financial instrument's classification, changes in subsequent measurements are recognized in net loss or other comprehensive loss.

A description of the financial instruments, their fair value and risk management is included in notes 2, 5 and 6 of the Annual Financial Statements, filed on SEDAR+ at www.sedarplus.ca and included in the Annual Report on Form 20-F filed on EDGAR at www.sec.gov/edgar.

## 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 of Common Shares (the "2020 Public Offering"), which initially closed 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 September 30, 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 | $ 11,902 | – | $ 1,248 |
| General corporate and working capital purposes | $ 11,350 | $ 11,350 | – | - |
| **Total** | **$ 32,200** | **$ 30,952** | **$ –** | **$ 1,248** |

**2022 PUBLIC OFFERING AND USE OF PROCEEDS**

The following table provides an update on the anticipated use of proceeds raised under an underwritten public offering of units, with each unit consisting of one Common Share and one Common Share purchase warrant, on August 11, 2022 (the "2022 Public Offering"), along with amounts actually spent. As of September 30, 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 |
| General corporate purposes and pre-clinical development of a BiSKIT candidate | US$ 8,000 | US$ 953 | - | US$ 7,047 |
| **Total** | **US$ 16,000** | **US$ 953** | **$ –** | **US$ 15,047** |

**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 Report on Form 20-F, 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 Report on Form 20-F filed on SEDAR+ at www.sedarplus.ca and 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 Vice President of Finance 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 six months ended September 30, 2023, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

As of September 30, 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 Vice President of Finance have concluded that these controls and procedures are effective.

## 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 | 6,739,124 |
| **Total** | **92,561,979** |

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

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.sedarplus.ca and EDGAR at www.sec.gov, respectively.