



# ***Management's Discussion and Analysis***

***For the Years Ended  
March 31, 2025***

**DATE OF REPORT: June 25, 2025**

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The following management's discussion and analysis ("MD&A") has been prepared as at June 25, 2025 for the year ended March 31, 2025 and should be read in conjunction with the audited consolidated financial statements of Medicenna Therapeutics Corp. for the year ended March 31, 2025 (the "Annual Financial Statements"). The audited consolidated financial statements and accompanying notes for the years ended March 31, 2025 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. Drug development and commercialization involve a high degree of risk, and only a small number of research and development programs result in commercialization of a product. Results in early-stage clinical studies may not be indicative of full results or results from later stage or larger scale clinical studies and do not ensure regulatory approval. You should not place undue reliance on these statements or the scientific data presented. 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 and the Company's Annual Information Form ("AIF") for the fiscal year ended March 31, 2025 filed on SEDAR+ on June 25, 2025.

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 with Merck (known as MSD outside the United States and Canada);
- statements related to the potential extensions of the term of patents;
- potential strategic partnership to facilitate bizaxofusp's further development and commercialization; and
- the use of proceeds from public equity offerings and private placements and the necessity for the Company to have recourse to such 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), its products
- 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 than 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 value of the "Orphan Drug" designation granted to bizaxofusp and that it may not actually lead to a faster development or regulatory review or approval process, may not be granted additional market exclusivity, may not receive tax credits and could be withdrawn by the United States FDA or the European Medicines Agency ("EMA");
- the unfavorable pharmacokinetic or pharmacodynamic properties of MDNA11 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 to enter 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;
- 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; and
- the impact of trade barriers on the Corporation's business, operations and financial condition,

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 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.

The Company's lead 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 tumor draining lymph nodes and augments MDNA11's half-life. MDNA11 is currently being evaluated in the ABILITY-1 (**A** Beta-only **IL-2** Immuno**TherapY**) study, a Phase 1/2 clinical trial in patients with advanced and/or metastatic solid tumors. The ABILITY-1 study is a global, multi-center, open-label study that will assess the safety, tolerability and anti-tumor activity of MDNA11 as monotherapy and in combination with KEYTRUDA® (pembrolizumab) under a clinical collaboration with Merck. The Company has successfully completed a Phase 1 monotherapy dose-escalation study with MDNA11 with a favourable safety profile and demonstrated early signs of single-agent efficacy in this setting. The monotherapy recommended dose for expansion (RDE) for MDNA11 has been established and enrollment in the dose-expansion phase 2 portion of the ABILITY-1 trial is currently underway. In addition, enrollment in the combination dose expansion portion of the ABILITY-1 trial is underway having established the MDNA11 combination recommended dose for expansion (cRDE) at 90 µg/kg administered every 2 weeks together with KEYTRUDA administered at 400 mg every 6 weeks.

Medicenna's most advanced candidate is bizaxofusp, formerly MDNA55, a first-in-class IL-4 receptor (IL-4R) targeted therapy 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 FDA and FDA/EMA, respectively.

The Company's earlier stage candidates from the BiSKITs™ and T-MASK™ platforms, encompassing IL-2, IL-4 and IL-13 super-agonists and super-antagonists, are in pre-clinical development. Medicenna's lead pre-clinical program, MDNA113, is a novel IL-13Rα2 tumor-targeted and "masked" anti-PD-1-IL-2 Superkine (anti-PD1-IL-2<sup>SK</sup>), engineered to precisely deliver clinically validated anti-PD-1 and IL-2<sup>SK</sup> to the tumor microenvironment (TME).

## RECENT ACHIEVEMENTS & HIGHLIGHTS

- On April 30, 2025, Medicenna announced the presentation of new pre-clinical data from MDNA113, its first candidate from the BiSKIT™ platform, at the 2025 Annual Meeting of the American Association for Cancer Research (AACR) in Chicago, Illinois. Key data demonstrated compelling anti-tumor activity in

IL-13R $\alpha$ 2 positive tumors in mice, including signs of enhanced memory that may support durable responses. See *Research & Development Update – MDNA113* for research updates.

- On April 28, 2025, Medicenna announced the presentation of updated clinical data from the ongoing Phase 1/2 ABILITY-1 study evaluating MDNA11 in patients with advanced solid tumors at the 2025 Annual Meeting of AACR in Chicago, Illinois, including continued anti-tumor activity and safety of MDNA11 in combination with Merck’s KEYTRUDA with an objective response rate (ORR) of 36% (5 of 14) in all tumor types enrolling in the Phase 2 expansion cohorts. Patients from the MDNA11 monotherapy dose expansion and dose escalation arms treated at  $\geq 60$   $\mu$ g/kg achieved an ORR of 29.4% (5 of 17) in all tumor types enrolling in the Phase 2 expansion cohorts. The monotherapy arm continued to demonstrate encouraging durability with a melanoma patient and a pancreatic cancer patient remaining tumor-free and off-treatment after entering the study 2 and 3 years ago, respectively. See *Research & Development Update – MDNA11* for clinical updates.
- On February 25, 2025 the Company presented data at the inaugural AACR-Immuno-Oncology Conference showing that MDNA11 significantly expands a unique population of ‘stem-like’ CD8<sup>+</sup> T cells that leads to more persistent and effective anti-tumor activity and that MDNA11 has shown durable single agent activity, with a 30% (3 of 10) objective response rate (ORR) in the monotherapy dose expansion cohort in checkpoint-resistant patients.
- On December 13, 2024 the Company presented preclinical data on MDNA11 as a first step to shrink tumors before surgery and prevent metastasis at the 2024 San Antonio Breast Cancer Symposium (“SABCS”). Data presented showed that a single dose of MDNA11 alone was more effective than a combination of immune checkpoint inhibitors (anti-PD1 and anti-CTLA4) in preventing metastasis and achieving long-term survival including promotion of anti-tumor specific memory, in an aggressive mouse model of triple negative breast cancer (“TNBC”).
- On December 5, 2024 the Company provided clinical update to the ABILITY-1 study and announced the first complete responder (“CR”) in MDNA11 in combination with KEYTRUDA (pembrolizumab) combination dose escalation arm in an oral presentation at the Immunotherapy Bridge conference. A 70-year-old patient with advanced chemo-refractory anal cancer achieved a complete response in 8 weeks when treated with MDNA11 in combination with KEYTRUDA (pembrolizumab). See *Research & Development Update – MDNA11* for clinical updates.
- On November 25, 2024 the Company presented preclinical data on MDNA11 and Bizaxofusp at the 2024 Annual Meeting of the Society for Neuro-Oncology (“SNO”). Data showed that MDNA11 provided significant survival benefits in preclinical glioblastoma models and that Bizaxofusp selectively kills human tumor cells and immune-suppressive cells, enhancing anti-tumor immunity. Combination therapy with MDNA11 and bizaxofusp demonstrates synergistic tumor-killing in human GBM tumoroids.
- On November 11, 2024, the Company announced that data from the ongoing Phase 1/2 ABILITY-1 study were presented at the 39<sup>th</sup> Annual Meeting of the Society for Immunotherapy of Cancer (“SITC”), demonstrating positive single-agent activity of MDNA11 from the dose expansion cohorts and an encouraging safety profile and early anti-tumor activity in combination with Merck’s KEYTRUDA. MDNA11 continued to demonstrate promising deep and durable single agent activity, with a 30% (3 of 10) objective response rate (“ORR”) in the monotherapy dose expansion cohort (in checkpoint-resistant patients). See *Research & Development Update – MDNA11* for clinical updates.
- On November 8, 2024, the Company presented data at SITC from its most-advanced preclinical BiSKIT™ program, MDNA113, a novel IL-13R $\alpha$ 2 tumor-targeted and conditionally activated anti-PD1-IL-2 superkine (anti-PD1-IL-2<sup>SK</sup>). Key data demonstrated that MDNA113 achieved complete tumor regression of IL-13R $\alpha$ 2 expressing tumors, highlighting its potential to treat a vast range of immunologically “cold tumors” that annually affect over two million cancer patients worldwide. See *Research & Development Update – MDNA113* for research updates.

- On November 8, 2024, an internationally recognized academic team from the University of College London and the University of Edinburgh presented promising pre-clinical results at SITC evaluating MDNA11 and anti-PD1-IL-2<sup>SK</sup> in mouse models of glioblastoma (“GBM”) and patient-derived GBM explants. See Research & Development Update – Bizaxofusp for research updates.
- On September 6, 2024, the Company presented preclinical data on MDNA209, a high affinity IL-2R $\beta$  biased IL-2/IL-15 super-antagonist, in an oral presentation at The Promise of IL-2 Therapy conference. Key data showed significant survival benefit with a long-acting MDNA209 in a mouse model of acute graft versus host disease (“GvHD”). See *Research & Development Update – MDNA209* for research updates.
- On June 1<sup>st</sup>, 2024, the Company presented survival follow-up and updated final study results at the 2024 ASCO Annual Meeting in Chicago. Key data showed statistically significant survival benefit in unresectable recurrent GBM patients who received a single high dose treatment of bizaxofusp in a phase 2b study compared to propensity matched external control arm. See Research & Development Update – Bizaxofusp for clinical updates.

## **FINANCING UPDATE**

### **Year ended March 31, 2025 and subsequent event**

#### Private Placement

On April 26, 2024, the Company announced a \$20 million investment by RA Capital Management (“RA”), a multi-stage investment manager based in Boston, MA, by way of a non-brokered private placement (the “2024 Offering”). The 2024 Offering closed on April 30, 2024. Pursuant to the terms of the 2024 Offering, RA subscribed for 5,141,388 Common Shares at a price of \$1.95 per share and, in lieu of common shares, pre-funded warrants to purchase 5,141,388 Common Shares at a purchase price of \$1.94 per pre-funded warrant, for total net proceeds to the Company of \$20 million. The Company intends to use the net proceeds from the 2024 Offering for further development of its MDNA11 program, advancement of its preclinical programs and general corporate purposes.

#### Warrants

During the year ended March 31, 2025, there were 2,495,917 warrants exercised for proceeds of \$3.8 million and 156,135 warrants that expired unexercised.

On April 14, 2025 the Company issued 5,141,388 common shares for the exercise of pre-funded warrants issued to RA Capital for proceeds of \$51,414.

### **Year ended March 31, 2024**

#### Warrants

During the year ended March 31, 2024 no warrants were exercised.

On July 5, 2023, the warrants issued on October 17, 2019 were due to expire on July 17, 2023 and were extended to October 17, 2024. On December 18, 2023, the warrants issued on December 21, 2018 were due to expire on December 21, 2023 and were extended to July 31, 2024.

# RESEARCH & DEVELOPMENT UPDATE

## Our Pipeline of Superkines

Candidate	Indication	Discovery	Preclinical	Phase 1	Phase 2	Phase 3
<b>MDNA11</b> IL-2 Super Agonist monotherapy	Various solid tumors	Key Data Readouts in H2 2025				
<b>MDNA11</b> IL-2 Super Agonist KEYTRUDA® combo	Various solid tumors	Key Data Readouts in H2 2025				
<b>MDNA113</b> Anti PD-1-IL-2 Masked BiSKIT	Various solid tumors expressing IL-13Rα2	IND-Enabling Ready				
<b>MDNA209</b> IL-2/15 Pathway Super Antagonist	Autoimmune diseases	IND-Enabling Ready				
<b>MDNA413</b> IL-4/13 Pathway Super Antagonist	Inflammatory diseases	Select Lead				
<i>Partnering Asset</i>						
<b>Bixaxofusp (MDNA55)</b> IL-4-Toxin Fusion	Recurrent glioblastoma (rGBM)	Partner Phase 3 Ready Asset				

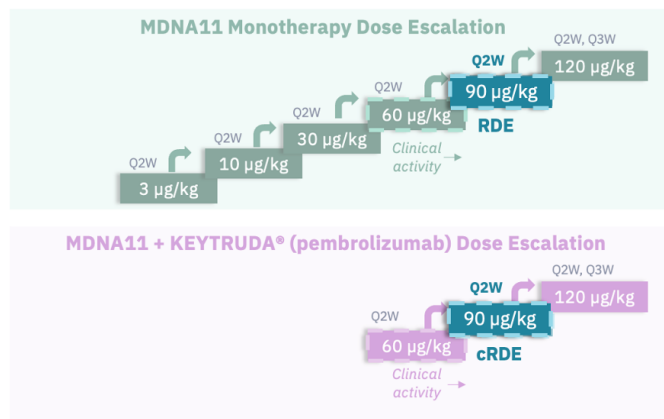
## MDNA11

### A Potential Best-in-Class ‘beta-Enhanced Not-alpha’ Interleukin 2 Super Agonist

MDNA11 is the only long-acting ‘beta-enhanced not-alpha’ interleukin 2 (IL-2) super agonist in clinical development, designed to preferentially activate anti-cancer immune cells (CD8<sup>+</sup> T and NK cells) over immunosuppressive (pro-cancer) Tregs. Fusion with human albumin augments MDNA11’s half-life and promotes its accumulation in tumors and tumor draining lymph-nodes. MDNA11 is currently being evaluated in the Phase 1/2 ABILITY-1 Study (NCT05086692) in patients with various advanced solid cancers. The ABILITY-1 Study is a global, multi-center, open-label clinical trial that assesses the safety, tolerability, and anti-tumor activity of MDNA11 as monotherapy and in combination with Merck’s KEYTRUDA. The figure below describes the ABILITY-1 Study.

### ABILITY-1 Study Schema: MDNA11 Monotherapy and in Combination with KEYTRUDA

#### Escalation Enrollment Complete



#### Expansion Enrollment Underway

High unmet need tumors with **potential for accelerated approval**

MONOTHERAPY	COMBINATION
Cutaneous Melanoma Secondary ICI-resistant	Cutaneous Melanoma Primary ICI-resistant
MSI-H / dMMR	MSI-H / dMMR
TMB-H	TMB-H
Virally Associated Tumor	Gynecological Cancer

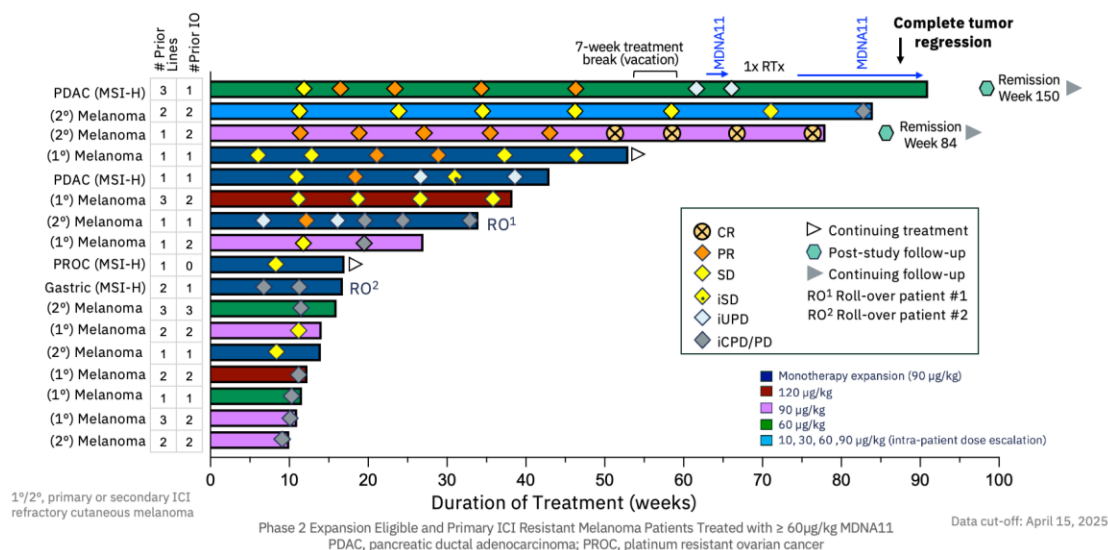
*‘Phase 2 eligible patients’ refer to patients with cancers planned for phase 2 expansion cohorts treated with ≥60 µg/kg MDNA11 Q2W*

On April 28<sup>th</sup>, 2025, at the AACR conference held in Chicago, Illinois, Medicenna reported updated clinical results from the ABILITY-1 study among patients who progressed on ICI therapy:

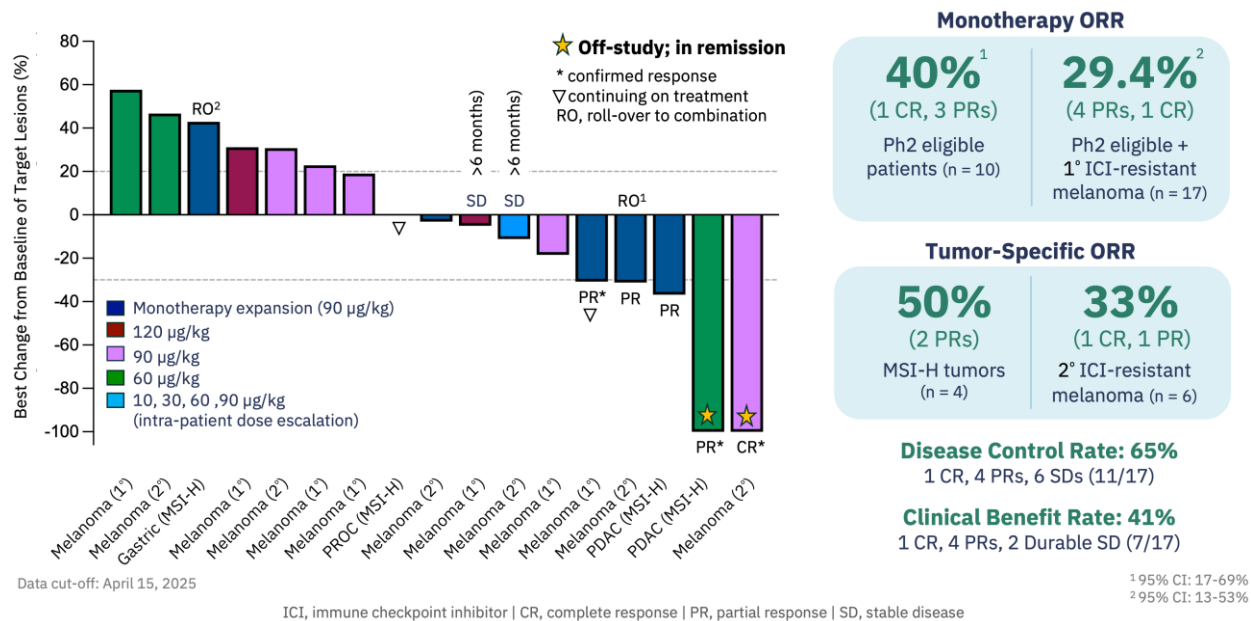
### Deep and Durable Anti-Tumor Activity with Single-Agent MDNA11 in ICI-Resistant Patients

- ORR of 40% in the monotherapy dose escalation (treated at  $\geq 60 \mu\text{g}/\text{kg}$ ) and expansion arm (1 confirmed CR, 1 confirmed PR and 2 unconfirmed PRs) among 10 patients with tumor types currently enrolling in the Phase 2 monotherapy expansion cohort. All patients had previously failed ICI therapy and had advanced and/or metastatic cutaneous melanoma with secondary resistance to ICI or MSI-H/dMMR tumors. Note that the non-melanoma skin cancer cohort is not recruiting as it was replaced with a new cohort of virally-derived cancers subsequent to a protocol amendment.
- The ORR is 29.4% from a total of 17 patients when including patients with cancers planned for Phase 2 expansion cohort and patients with primary ICI resistant melanoma who received at least  $60 \mu\text{g}/\text{kg}$  of MDNA11 (Q2W).
- Overall, objective responses in ICI-resistant patients include 1 CR and 4 PRs:
  - 2 PRs among 4 MSI-H patients (ORR of 50%) with both responders having metastatic pancreatic ductal adenocarcinoma (PDAC).
  - 1 CR and 1 PR among 6 patients with ICI secondary resistant melanoma (ORR of 33.3%).
  - 1 PR among patients with ICI primary resistant melanoma.
- Complete resolution of all target and non-target lesions in two patients with on-going remission following end-of-treatment:
  - Cutaneous melanoma patient achieved a durable response exceeding 12 months during the study with complete resolution of target and non-target metastatic lesions and continues to remain off anti-cancer therapy for more than 6 weeks.
  - Pancreatic cancer patient (MSI-H) achieved a durable response for 20 months during the study with complete resolution of target and non-target metastatic lesions in the liver including a new lesion treated with MDNA11 following a single cycle of radiation and continues to remain off anti-cancer therapy for more than 12 months.
- Stable disease (SD in 6 patients for a disease control rate (DCR = CR+PR+SD) of 65% including 2 with duration > 6 months, yielding a clinical benefit rate of 41% (7/17).

### Monotherapy: Durable Single-Agent Anti-Tumor Activity in Patients Who Failed Prior ICIs



## Monotherapy: 1 CR, 4 PRs, Including 100% Reduction of Target/Non-Target Lesions in 2 Patients



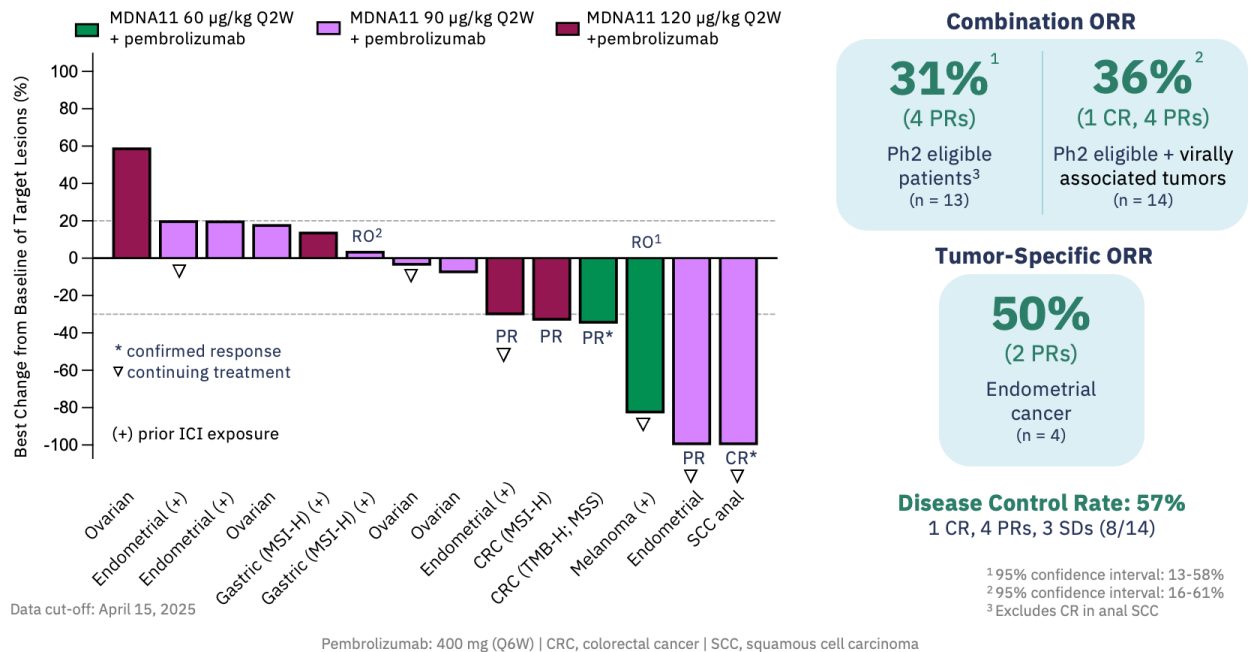
## Continued Anti-Tumor Activity in Heavily Pre-treated Patients in MDNA11 Combination Dose Escalation with KEYTRUDA

Enrollment in the combination dose expansion portion of the ABILITY-1 study is underway having established the MDNA11 cRDE at 90 µg/kg administered every 2 weeks together with KEYTRUDA administered at 400 mg every 6 weeks.

Encouraging anti-tumor activity continues to be observed with MDNA11 in combination with KEYTRUDA in patients enrolled in the dose escalation portion of the study:

- 5 objective responses (1 CR and 4 PRs) among heavily pre-treated patients, including two previously reported objective responses in historically low immunotherapy responders:
  - 70-year-old male with anal squamous cell carcinoma (SCC) who previously progressed on two prior lines of chemotherapy achieved a CR on the first study evaluable imaging scan (week 8); patient continues on combination treatment following a confirmed CR.
  - 52-year-old female with TMB-H/MSS colorectal cancer who previously progressed on two prior lines of chemotherapy achieved a confirmed PR. While off-study for 4 months, the patient continues to show deepening of the tumor response in the absence of any treatment.
- ORR of 31% (4 of 13) in patients with cancers planned for the Phase 2 combination expansion cohort, including cutaneous melanoma, MSI-H/dMMR, and TMB-H tumors, and an ORR of 36% (5 of 14) when including the virally-derived cancers.
- SD in 3 patients for a disease control rate (DCR = CR+PR+SD) of 57% (8/14).

## Promising Clinical Activity in MDNA11 Combination Dose Escalation Across Multiple Tumor Types with Historically Low Immunotherapy Response Rates



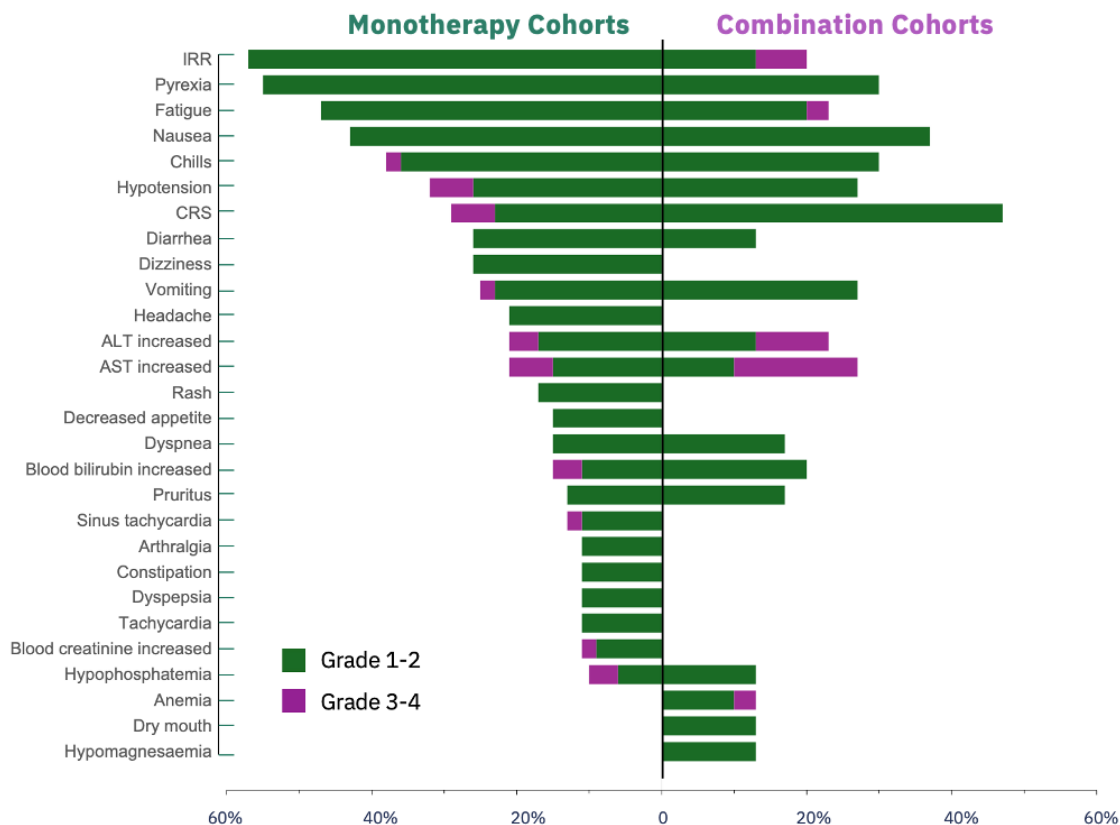
### Desirable Safety Profile

MDNA11 continues to demonstrate a desirable safety profile both as a single agent and in combination with KEYTRUDA and was generally well tolerated across all dose levels:

- No dose limiting toxicities (DLTs) observed with MDNA11 at doses up to 120 µg/kg (Q2W) in monotherapy and in combination with KEYTRUDA (400 mg, Q6W).
- Majority of treatment related adverse events (TRAEs) were grade 1 or 2 (> 92%) and resolved within 48 hours.
- Grade 3 TRAEs mainly constituted transient liver functions test (LFT) elevations based on laboratory tests and were clinically asymptomatic.
- Grade 3 hypotension was observed in monotherapy patients with baseline adrenal insufficiency with existing risk of blood pressure drop.
- One isolated single case of asymptomatic grade 4 hepatic enzyme increase that resolved within 72 hours without intervention (MDNA11 monotherapy).

## Favorable Safety Profile Observed Across All Doses in Monotherapy and Combination Cohorts

### Treatment Related Adverse Events (TRAEs) in ≥ 10% of Patients



Data cut-off: April 15, 2025

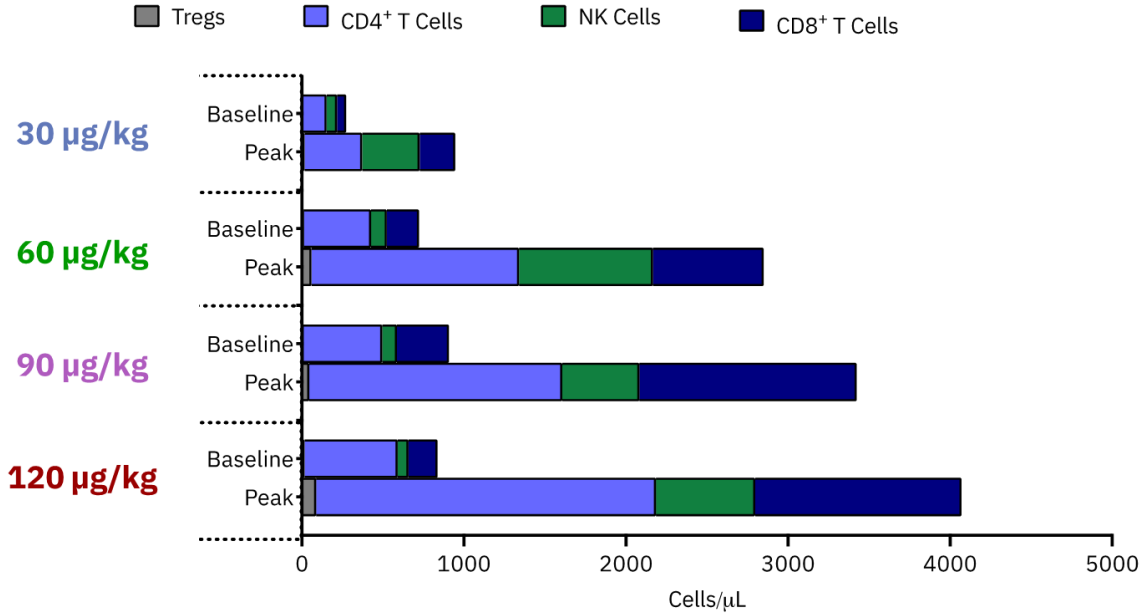
CRS, cytokine release syndrome | IRR, infusion related reaction

### Robust Pharmacodynamic Response Consistent with Anticipated MDNA11 Pharmacology

Pharmacodynamic data on effector immune cells support the mechanistic rationale for MDNA11's promising anti-tumor activity. Key pharmacodynamic data included:

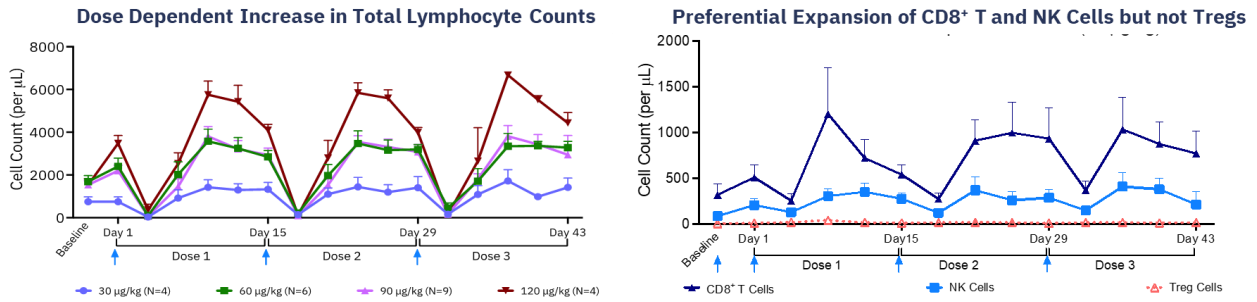
- Robust expansion of immune effector cells in monotherapy and combination with KEYTRUDA with notable increases in effector (DNAM), 'stemness-like' (TCF-1) and memory CD8<sup>+</sup> T cells, which are critical for sustained anti-tumor responses.
- Robust, dose-dependent lymphocyte expansion in combination with KEYTRUDA, sustained with repeat MDNA11 dosing, and plateauing at the 90 µg/kg MDNA11 dose level.
- MDNA11 preferentially expands peripheral effector immune cells (CD8<sup>+</sup> T and NK cells) over Tregs with CD8<sup>+</sup> T cells remaining as the major cytotoxic immune population.
- Analysis of paired biopsies showed increased tumor infiltration of CD25<sup>+</sup> activated CD8<sup>+</sup> T cells and NK cells post-MDNA11 monotherapy treatment.

### Robust Expansion of Anti-Cancer Effector Immune Cells but Not Immune Suppressive Tregs

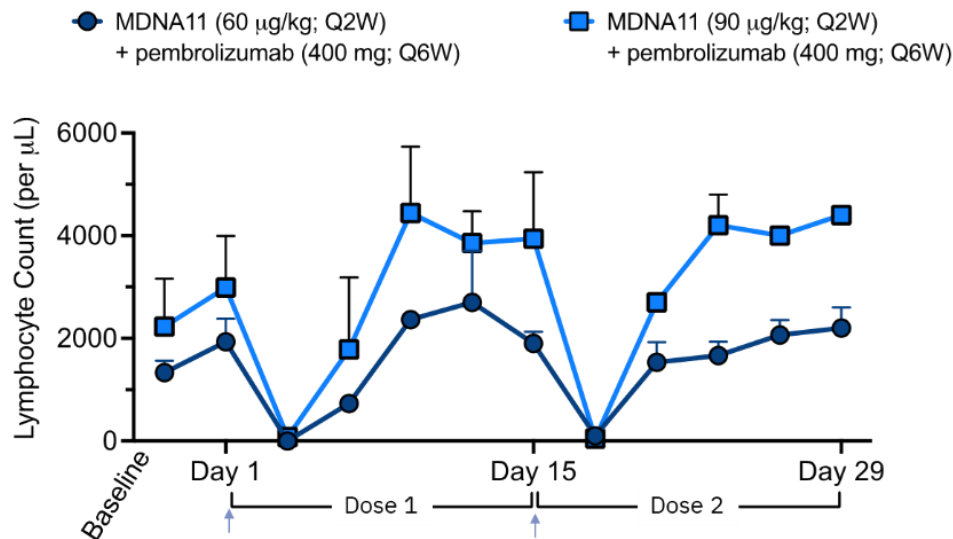


Immune cells were assessed by flow cytometry and the numbers were calculated based on the absolute lymphocyte count  
 Peak values are from day 8 post treatment following dose 1, 2 or 3  
 Tregs: CD4<sup>+</sup>CD25<sup>+</sup>FOXP3<sup>+</sup>, NK Cells: CD3<sup>-</sup>CD56<sup>+</sup>

### Sustained Effector Cell Expansion with Repeat MDNA11 Monotherapy Dosing



### Robust Lymphocyte Expansion in Combination Dose Escalation



## Significant Increases in Stemness, Central and Effector Memory and Markers of Enhanced Effector Function in Circulating CD8<sup>+</sup> T and NK cells, Supporting a Durable Underlying Anti-Tumor Immune Response

### TCF1:

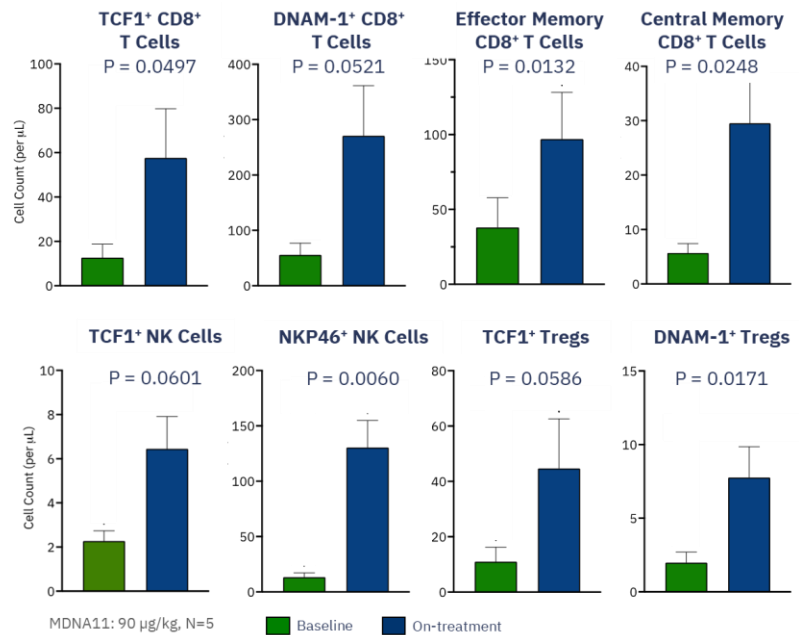
- Positive regulator of CD8<sup>+</sup> T and NK cell 'stemness' (i.e., self renewal, proliferation and effector functions)
- Represses FoxP3 leading to dysfunctional Tregs and loss of immune suppression

### DNAM-1 (CD226):

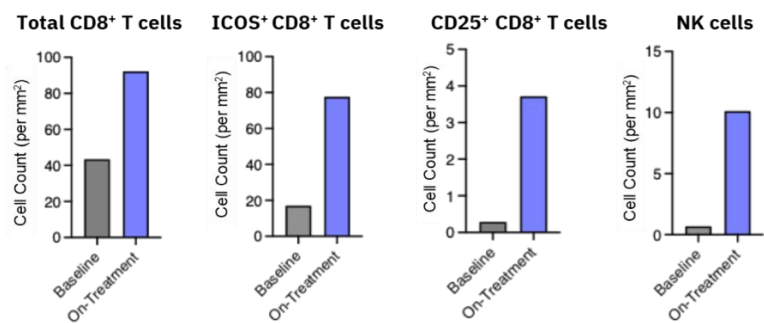
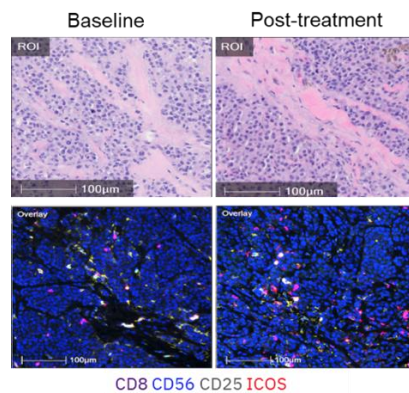
- Positive regulator of immune effector function of CD8<sup>+</sup> T and NK cells
- Attenuates immune suppressive activity of Tregs

### NKP46:

- Positive regulator of NK cell activation (increased cytotoxic activity and cytokine production)



## Paired Biopsy Samples Demonstrate Increased Tumor Infiltration of Total and Activated CD8<sup>+</sup> T and NK Cells Following MDNA11 Monotherapy Treatment



Paired tumor biopsies from a patient treated with single-agent MDNA11 10 µg/kg Q2W. Post-treatment sample collected following 3rd dose

## Preclinical Updates on MDNA11

### MDNA11 Administration Prior to Surgery

On December 13<sup>th</sup>, 2024, Medicenna announced the presentation of new preclinical data at the 2024 San Antonio Breast Cancer Symposium ("SABCS"), the world's largest breast cancer conference which took place from December 10-13, 2024, in San Antonio Texas. The presentation highlighted the potential of MDNA11 to improve treatment outcomes of triple negative breast cancer ("TNBC"), an area of high unmet need, when administered prior to surgery (neoadjuvant therapy). Key conclusions from the presentation included:

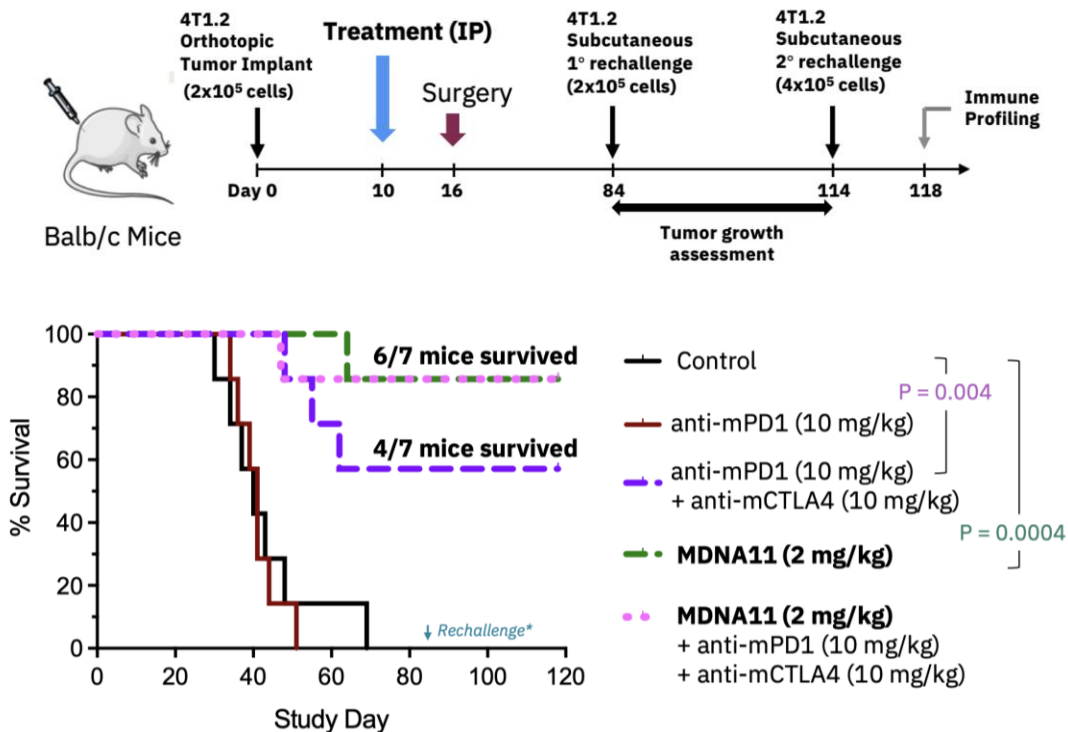
- Single neoadjuvant treatment with MDNA11 provided significant survival benefit in an orthotopic model of TNBC by preventing metastasis.
- MDNA11 promotes tumor infiltration of cytotoxic (Granzyme B<sup>+</sup>) CD8<sup>+</sup> T cells with no increase in immune suppressive Tregs.

- Neoadjuvant MDNA11 promotes development of antigen-specific memory response that protects against tumor rechallenge.
- Neoadjuvant MDNA11 monotherapy is more effective than the combination of anti-mPD1 + anti-mCTLA4 in prevention of metastasis and extending survival.

### Single Dose of MDNA11 Neoadjuvant Therapy Resulted in Greater Survival Benefit than Single or Combination of Checkpoint Inhibitors.

4T1.2 Orthotopic Model of TNBC

Study Schema:



### Bizaxofusp (formerly MDNA55) for the Treatment of Recurrent Glioblastoma (“rGBM”)

#### **Unmet Need in Glioblastoma**

Glioblastoma (GBM) is one of the most complex, deadly, and treatment-resistant cancers. Nearly all patients relapse following standard of care. It is expected that annually there will be at least 15,000 new diagnoses of GBM in United States and Canada and more than 300,000 new cases worldwide. Nearly all GBM patients relapse following standard of care (SOC). Recurrent GBM (rGBM) is universally fatal with a median survival of 6-9 months. Approved treatments have failed to significantly extend survival beyond a few months, therefore development of novel approaches for treating GBM and rGBM remains a great unmet need.

#### **Medicenna’s Bizaxofusp**

Medicenna’s phase 3 ready asset for rGBM, bizaxofusp, is a genetically engineered fusion of a circularly permuted version of IL-4 to a potent catalytic component of the bacterial Pseudomonas exotoxin which effectively arrests protein synthesis leading to cell death. The IL-4 component is engineered to selectively target cells that express IL-4, including GBM and immune suppressive cells occupying the TME surrounding GBM to protect anti-tumor immune defense. Bizaxofusp is infused into the tumor using a minimally invasive

enhanced convection delivery technique to bypass the blood-brain barrier. Bizaxofusp holds both FastTrack and Orphan Drug status from the FDA and FDA/EMA, respectively.

Bizaxofusp, to-date, has been tested in 118 patients with high grade gliomas (including 112 patients with rGBM) and most recently completed a successful Phase 2b (N=44) trial for nonresectable rGBM where it demonstrated a doubling of median overall survival (“mOS”) to 13.5 months in the high-dose population compared to SOC mOS of 6-9 months. The Phase 2b clinical trial was conducted 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. Preliminary results were published in June 2023 issue of NeuroOncology (doi: 10.1093/neuonc/noac285).

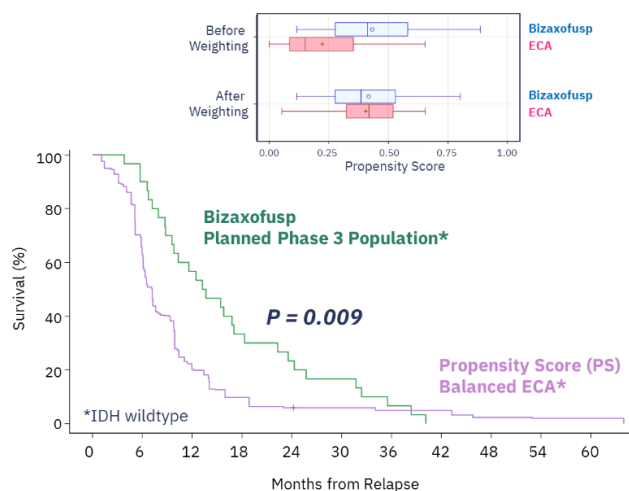
A separate analysis collected rGBM survival and prognostic data from 81 eligibility matched patients who had contemporaneously received treatment at major clinical centres using current SOC. These data from patient registries were used to establish a matched External Control Arm (“ECA”). Blinded survival data from propensity score (“PS”) balanced ECA (established by matching with bizaxofusp-treated population based on 10 different prognostic factors using propensity scoring methods) were then used as a control arm versus survival data from the Phase 2b bizaxofusp trial.

### Statistically Significant Survival Benefit from a Single Dose of Bizaxofusp in Unresectable rGBM

On June 1<sup>st</sup>, 2024, the Company presented survival follow-up and updated final study results at the 2024 ASCO Annual Meeting in Chicago. Key findings from the presentation are shown in the figure below and include:

- In the Phase 2b study, a single treatment with high dose bizaxofusp in unresectable rGBM patients achieved significant survival benefit (mOS of 13.5 vs. 7.2 months, p=0.009) and reduced risk of death by almost half (hazard ratio: 0.54, 95% confidence interval: 0.34-0.83) versus a PS balanced ECA.
- Bizaxofusp significantly increased median overall survival (mOS) by 88% (p = 0.009) and improved overall survival at 1 and 2 years by 180% and 290%, respectively when compared to the PS balanced ECA.
- Tumor control was associated with a significant increase in mOS following treatment with bizaxofusp and consequently, may be an early surrogate of survival benefit in future studies.
- TRAEs were primarily neurological or aggravation of pre-existing neurological deficits expected with rGBM. There were not laboratory abnormalities nor any systemic toxicities.

### Bizaxofusp Significantly Improved Overall Survival in Phase 3 Population vs. Propensity Score Balanced ECA



	PS Balanced ECA (N = 29.5)	Bizaxofusp (N = 30)
OS-12	20.2%	56.7%
OS-18	9.8%	33.3%
OS-24	5.9%	23.3%
OS-30	5.9%	16.7%
mOS (months)	7.2	13.5
<b>p-value*</b>	<b>0.009</b>	
<b>HR* (95% CI)</b>	<b>0.536 (0.344, 0.834)</b>	

\*Log-rank test

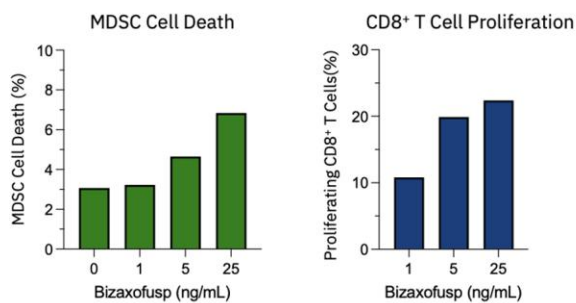
## Bizaxofusp Selectively Targets Immune Suppressive Cells to Reverse Immune Suppression and Synergizes with MDNA11 to Enhance GBM Tumor Killing

The TME of GBM is highly abundant in immune suppressive cells which act to constrain the anti-tumor activity of key anti-tumor effector immune cells. These immune suppressive cells also express IL-4R and therefore are susceptible to the cell killing potency of bizaxofusp.

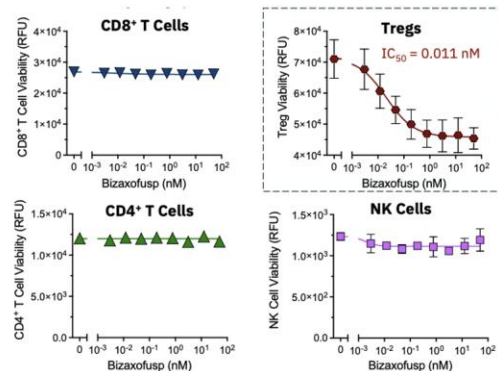
On November 25, 2024 the Company presented preclinical data on bizaxofusp and MDNA11 at the 2024 Annual Meeting of the SNO in Houston Texas. Key data from the presentation included:

- MDNA11 showed significant survival benefit in an orthotopic model of GBM.
- Single treatment with bizaxofusp induced tumor shrinkage and stimulated durable anti-tumor immune response in the TME of rGBM patients.
- Bizaxofusp kills immune suppressive MDSC and Tregs, leading to stimulation of CD8<sup>+</sup> T cells.
- Combination of bizaxofusp and MDNA11 shows synergy in inducing tumor cell killing in patient derived GBM tumoroids.

Bizaxofusp Enables CD8<sup>+</sup> T cell Proliferation by Eradicating MDSCs in Co-cultures Containing Both Cell Types

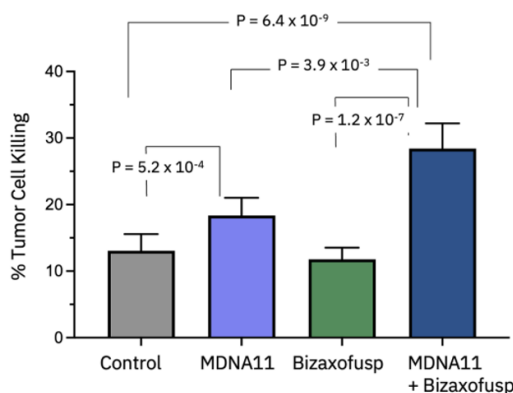


Bizaxofusp Selectively Kills Suppressive Tregs

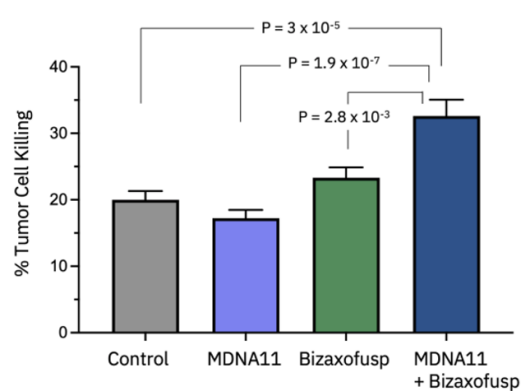


## Bizaxofusp and MDNA11 Synergize to Enhance GBM Tumor Cell Killing

GBM Tumoroid #1



GBM Tumoroid #2



>51 tumoroids per condition; treatment for 5 days.  
Tumor cell killing measured by high resolution microscopy based on size and nuclear morphology.

### **Phase 3 Partnering and Regulatory Milestones**

Following the end of Phase 2 (“EOP2”) meeting with the FDA, an innovative open-label hybrid Phase 3 registration trial that allows the use of a substantial number of patients (two-thirds) from a propensity matched ECA to support marketing authorization of bizaxofusp for rGBM, was accepted by the FDA.

To add additional value to the bizaxofusp program Medicenna is preparing the relevant regulatory submissions to seek Breakthrough Therapy Designation (“BTD”) from the FDA and Priority Medicine (“PRIME”) designation and alignment from the EMA for the open-label hybrid Phase 3 registration trial.

Medicenna is also 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 is granted. Medicenna estimates that the total cost of completing a pivotal registrational trial, associated regulatory and manufacturing activities and preparing bizaxofusp for commercial launch to be approximately \$60 to \$80M USD.

Confidential primary market research conducted for the Company has estimated that bizaxofusp has peak revenue potential of more than \$800M USD for unresectable rGBM alone and an additional ~\$3B USD potential in other brain cancers in adults such as newly diagnosed GBM, metastatic brain tumors and various pediatric brain cancers known to express the IL-4R.

### **Pre-Clinical Assets**

#### ***BiSKITs™ (Bi-functional SuperKine ImmunoTherapies) Platform***

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

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

Medicenna’s novel T-MASK™ (Targeted Metallo/protease Activated SuperKine) platform involves fusion of a dual tumor-targeting/masking domain to an immune modulator (such as a Superkine or a BiSKIT™) via a matrix metalloprotease (MMP) sensitive linker to (i) fine-tune the potency of the immune modulator, (ii) increase its systemic tolerability (iii) prolong its retention in the TME and (iv) to maximize its full potency at the intended target site where the masking domain is removed by design. In summary, the T-MASK™ platform offers opportunity to target and fine-tune immune cell stimulation in the TME to further improve the therapeutic index of Medicenna’s Superkine and BiSKIT™ platforms.

#### ***MDNA113: A Tumor-targeting and Activatable ‘Masked’ Anti-PD-1-IL-2 BiSKIT™ for Cancer***

MDNA113, is our most advanced pre-clinical asset encompassing both, the T-MASK™ and BiSKIT™ platforms. It is a novel first-in-class tumor targeted and activatable bifunctional anti-PD1-IL-2 superkine in which the tumor targeting/masking domain is an engineered IL-13 superkine with exceptionally high affinity and specificity for IL-13R $\alpha$ 2, a tumor associated antigen overexpressed in diverse tumors but not normal tissues. The IL-13 superkine also provides a ‘masking’ domain to partially reduce the immune stimulatory activity of MDNA113 to reduce risk of systemic toxicity due to immune stimulation. Within the TME where there is abundant MMPs, the IL-13 masking domain is released and the activity of the core anti-PD1-IL-2<sup>SK</sup> is fully restored to activate cytotoxic CD8<sup>+</sup> T cells (by inducing IL-2R) while at the same time preventing these anti-tumor T cells from exhaustion by the PD-(L)1 blockade.

On April 30, 2025, Medicenna announced the presentation of new pre-clinical data from MDNA113, its first candidate from the BiSKIT™ platform, at the 2025 AACR Annual Meeting in Chicago, Illinois. Key highlights from the presentation included:

- *Cis*-binding maximizes synergy between immune checkpoint blockade and IL-2R activation on the same CD8<sup>+</sup> T effector cells for optimal tumor cytotoxicity.
- MDNA113 retains PD-(L)1 blockade while exhibiting attenuated IL-2R signaling that is restored upon cleavage by tumor-specific proteases in the TME.

- Preferential tumor localization and retention of MDNA113 in the TME for at least 72 hours in mice implanted with tumors expressing IL-13R $\alpha$ 2.
- IL-13SK masking of IL-2SK in MDNA113 enhances tolerability and attenuates IL-2SK induced peripheral lymphocyte expansion in mice.
- MDNA113 inhibits MC38/IL-13R $\alpha$ 2 tumor growth in mice and promotes memory response against tumor rechallenge with 100% protection observed with complete responders.
- MDNA113 enhances infiltration of functionally active CD8<sup>+</sup> T cells over NK cells & Tregs in different tumor models.
- The combination of MDNA113's tumor targeting and conditional activation represents a uniquely differentiated and potentially superior alternative to other anti-PD-1-IL-2 bispecific therapies currently in development.

On November 8, 2024, the Company presented preclinical data on MDNA113 at the 39<sup>th</sup> SITC Annual Meeting in San Diego, CA. Data were also highlighted in an oral presentation at the Promise of IL-2 Therapy on September 7, 2024 (Paris, France) and at the Annual Meeting of AACR on April 9, 2024 (San Diego, CA). Key data presented at these conferences included:

- When not activated, MDNA113 shows reduced IL-2R agonism with no change in PD-1/PDL-1 blockade activity.
- Cleavage and activation of MDNA113 by cancer specific enzymes (metalloproteases) releases the IL-13 masking domain, restoring activity of the IL-2 Superkine at the tumor site.
- MDNA113 shows reduced systemic lymphocyte expansion, resulting in increased tolerability.
- MDNA113 achieves anti-tumor response as 'non-mask' control in mouse models with IL-13R $\alpha$ 2 tumors, including durable and complete tumor regression in vast majority of cases.
- Analysis of tumors harvested from MDNA113 treated mice shows enrichment of Granzyme B expressing CD8<sup>+</sup> T cells, consistent with their active cytotoxic function within the TME.
- Single neoadjuvant treatment with MDNA113 in a highly invasive orthotopic 4T1.2 breast cancer model significantly increases survival by preventing metastasis, underscore the broad potential of MDNA113 in immuno-oncology.

In summary, MDNA113 has the potential to make a meaningful impact on a broad range of IL-13R $\alpha$ 2 expressing tumors, including immunologically "cold" tumors (e.g., pancreatic, prostate, ovarian, breast and brain tumors), affecting over two million patients every year world-wide.

### ***MDNA209: An IL-2/IL-15 Pathway Super-Antagonist***

MDNA209 binds with exceptional affinity to IL-2R $\beta$  but has reduced binding to the common IL-2 $\gamma_c$  receptor. Therefore, MDNA209 occupies IL-2R $\beta$  and blocks downstream effect and in doing so effectively prevents activation of effector CD4<sup>+</sup> and CD8<sup>+</sup> T cells and NK cells. As a result, we believe that MDNA209 can provide effective therapy against diseases such as autoimmune (e.g., multiple sclerosis) and graft-versus-host (e.g., transplant rejection) diseases ([Mitra et al., 2015](#)).

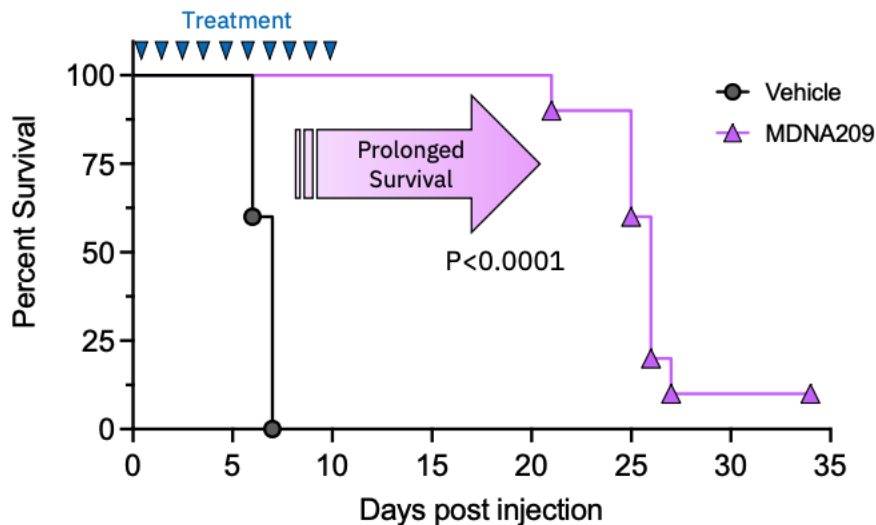
At the Promise of Interleukin-2 Therapy Conference held in Paris, France, from September 4th-7th, 2024, Medicenna reported pre-clinical results on MDNA209. Key data from the presentation included:

- MDNA209 is a potent antagonist that blocks the ability of wild-type IL-2 and IL-15 to induce immune cell proliferation and secretion of pro-inflammatory cytokines (interferon- $\gamma$ ), which contribute to aberrant inflammation and auto-immune conditions.

- In an aggressive animal model of acute GvHD, MDNA209 was able to extend overall survival by 400 percent, reduce weight loss and improve clinical scores.

The presentation outlined the potential of MDNA209 to treat autoimmune diseases, including high grade GvHD which has a 1-year survival rate of only 40%. Transplant patients with GvHD experience significant morbidity and mortality with limited therapeutic options to prolong survival.

### MDNA209 Significantly Increased Survival in a Highly Aggressive Model of Acute GvHD



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

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 receptor or dedicated IL-13 receptor such as IL-13R $\alpha$ 2. Receptor selectivity is achieved by engineering mutations into the IL-4 or IL-13 cytokines to enhance binding to specific IL-4R or IL-13R subunits. These mutations also modulate the bioactivity of IL-4 or IL-13, resulting in Superkines with enhanced signalling (super-agonists) or capacity to block signalling (super-antagonists).

Our 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 IL-4R and potently blocks both IL-4 and IL-13 signalling ([Moraga et al., 2015](#)). Blocking of Type 2 IL-4R by MDNA413 potentiates anti-tumor response by reversing Th2 condition (tumor-promoting) of the TME to a Th1 condition which supports and promotes anti-tumor immune cells. We believe that MDNA413's capacity 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 approved checkpoint inhibitors and other immunotherapies.

Additionally, Th2 skewing also underlies non-oncology conditions such as asthma and atopic dermatitis as well as other allergic diseases. MDNA413 has the potential to make a meaningful impact on the treatment of these allergic conditions which can be reformulated to provide options for nasal (for asthma) and topical administration (for atopic dermatitis).

## SELECTED FINANCIAL INFORMATION

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

	2025	2024	2023
	\$	\$	\$
General and administration	5,962	7,874	6,999
Research and development	14,444	10,800	9,304
Total operating costs	20,406	18,674	16,303
Change in fair value of warrant derivative (gain)	(6,347)	7,920	(4,347)
Transaction costs on derivative warrant liability	-	-	652
Finance (income)	(1,350)	(1,198)	(914)
Foreign exchange loss (gain)	(904)	70	(1,646)
Net (loss)	(11,805)	(25,466)	(10,048)
Basic and diluted loss per share	(0.15)	(0.37)	(0.16)
Total assets	28,382	19,134	36,446
Total liabilities	9,287	13,943	6,960

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

For the year ended March 31, 2025, the Company reported total operating costs of \$20.4 million compared to total operating costs of \$18.7 million for the year ended March 31, 2024. The increase is related to an increase in research and development expenses (\$3.6 million) which was partially offset by a decrease in general and administrative expenses (\$1.9 million) as discussed further below.

For the year ended March 31, 2025, the Company reported a net loss of \$11.8 million (\$0.15 loss per share), compared to a net loss \$25.5 million (\$0.37 loss per share) for the year ended March 31, 2024. The \$13.7 million decrease in net loss for the year ended March 31, 2025, compared with the year ended March 31, 2024, is primarily due to a decrease in the fair value of the derivative warrant liability of \$14.3 million, increased research and development expenses of \$3.6 million, an increase in foreign exchange gain of \$1 million, and a decrease in general and administrative expenses of \$1.9 million. The significant increase in fair value of the warrant derivative is due to the 48% decrease in the Company's share price year-over-year. As discussed in the Annual Financial Statements, warrants with an exercise price denominated in a currency that differs from an entity's functional currency are treated as a derivative liability measured at fair value with subsequent changes in fair value accounted for through the consolidated statement of loss. The Company uses the Black-Scholes model to determine the fair value of the warrant derivative. The increase in foreign exchange gain was primarily driven by the appreciation of the U.S. dollar (USD) relative to the Canadian dollar (CAD) during the period which resulted in translation gains on the Company's USD denominated cash holdings. Variances related to research and development and general and administrative expenses are discussed in further detail below.

For the year ended March 31, 2024, the Company reported total operating costs of \$18.7 million compared to total operating costs of \$16.3 million for the year ended March 31, 2023. The increase is related to an increase in general and administrative expenses (\$0.9 million) and research and development expenses (\$1.5 million) as discussed further below.

For the year ended March 31, 2024, the Company reported a net loss of \$25.5 million (\$0.37 loss per share), compared to a net loss \$10.0 million (\$0.16 loss per share) for the year ended March 31, 2023. The \$15.5 million increase in net loss for the year ended March 31, 2024, compared with the year ended March 31, 2023, is primarily due to an increase in the fair value of the derivative warrant liability of \$12.3 million, increased research and development expenses of \$1.5 million, and increase general and administrative costs of 0.9 million. The significant increase in fair value of the warrant derivative is due to the 111% increase in the Company's share price year-over-year. Variances related to research and development and general and administrative expenses are discussed in further detail below.

## RESULTS OF OPERATIONS FOR THE YEAR MARCH 31, 2025

### Research and Development (“R&D”) Expenses

	2025	2024	2023
	\$	\$	\$
<b>Research and Development Expenses</b>			
Clinical	8,781	4,695	3,554
Salaries and benefits	2,714	2,544	2,266
Discovery and pre-clinical	1,863	1,407	1,274
Licensing, patent, legal fees and royalties	965	1,370	1,295
Chemistry, manufacturing and controls	167	923	906
Regulatory	291	107	196
Stock based compensation	713	573	505
Other research and development expenses	175	170	56
Refundable tax credits	(1,225)	(989)	(748)
	<b>14,444</b>	<b>10,800</b>	<b>9,304</b>

R&D expenses of \$14.4 million were incurred during the year ended March 31, 2025, compared with \$10.8 million incurred in the year ended March 31, 2024. The net increase in each period is primarily related to:

- Increased clinical costs during the current year relative to the prior year due to the expansion of the MDNA11 ABILITY-1 Study to new clinical sites, the inclusion of more patients in the study relative to the prior year, and the inclusion of the combination portion of the MDNA11 study with KEYTRUDA during the current year which had not commenced in the prior year.
- An increase in discovery and pre-clinical expenses during the current year due to higher activity levels related to the Company’s pre-clinical programs and additional pre-clinical work completed related to the MDNA55 program to support partnering efforts.
- Decreased licensing, patent, legal fees and royalties in the current year relative to the prior year due primarily to larger milestone payments in the previous year related to the progression MDNA11.
- Decreased chemistry, manufacturing and controls cost in the current year relative to the prior year due to a significant one-time expenditure incurred in the previous year for comprehensive testing associated with MDNA11 stability studies.

Research and development expenses of \$10.8 million were incurred during the year ended March 31, 2024, compared with \$9.3 million during the year ended March 31, 2023. The year-over-year increase is net of the following year-over-year variances:

- Increased clinical costs during the year relative to the prior year due to the expansion of the MDNA11 ABILITY-1 Study to new clinical sites in South Korea, and the enrollment of additional patients to the study throughout the year, and commencement of the combination portion of the study with pembrolizumab.
- An increase in salaries and benefits due to the addition of research staff during the period to support MDNA11 activity and the payment of a bonus to research and development staff in the current year and not in the previous year.
- An increase in discovery and pre-clinical expenses during the current year related to the BiSKIT™ research program.

## General and Administrative (“G&A”) Expenses

	2025	2024	2023
	\$	\$	\$
<b>General and Administration Expenses</b>			
Public company expenses	2,280	4,731	4,603
Salaries and benefits	1,528	1,711	943
Stock based compensation	1,501	636	582
Facilities and operations	598	791	866
Depreciation expense	55	5	5
	<b>5,962</b>	<b>7,874</b>	<b>6,999</b>

G&A expenses of \$6.0 million were incurred during the year ended March 31, 2025, compared with \$7.9 million during the year ended March 31, 2024. The year-over-year decrease is net of the following year-over-year variances:

- A significant decrease in public company expenses in the current year relative to the prior year related due to lower D&O insurance premiums, reduced professional services including legal and audit fees, a reduction in US-based investor and public relations expenses, and non-recurring recruitment fees incurred during the prior comparative periods.
- An increase in stock-based compensation during the year relative to the prior year due to the grant of options during the current period and a stock-based compensation expense recovery realized in the prior period related to employee departures.

G&A expenses of \$7.9 million were incurred during the year ended March 31, 2024, compared with \$7.0 million during the year ended March 31, 2023. The year-over-year increase is net of the following year-over-year variances:

- Increased salaries and benefits in fiscal 2024 related to recruitment of executive staff in the US and subsequent departure of the US based executives as the Company refocused its executives to Canada following its delisting from Nasdaq.
- Increased facilities and operations expense during the year due to non-recurring costs for software implementation and licensing and increased travel expenses related to the addition of US based employees during the year.
- Increased public company expenses in fiscal 2024 related to the expiry of the company’s ATM which resulted in the expensing of prepaid fees associated with the ATM facility during the current period, and non-recurring legal expenses in the current period related to SEC deregistration and employment transition matters.
- A decrease in stock-based compensation expense primarily due to options issued at lower strike price than previous comparable period.

## RESULTS OF OPERATIONS FOR THE THREE MONTHS ENDED MARCH 31, 2025

### Research and Development Expenses

	Three months ended March 31, 2025	Three months ended March 31, 2024
	\$	\$
<b>Research and Development Expenses</b>		
Clinical	3,605	1,133
Salaries and benefits	663	784
Discovery and pre-clinical	460	305
Licensing, patent, legal fees and royalties	262	305
Chemistry, manufacturing and controls	-	112
Regulatory	141	30
Stock based compensation	189	174
Refundable tax credits	(1,030)	(989)
Other research and development expenses	54	9
	<b>4,344</b>	<b>1,863</b>

Research and development expenses of \$4.3 million were incurred during the three months ended March 31, 2025, compared with \$1.9 million incurred in the three months ended March 31, 2024. The net increase is primarily attributable to:

- Increased clinical costs during the three months ended March 31, 2025 relative to the prior comparable period due to the expansion of the MDNA11 ABILITY-1 Study to new clinical sites, the inclusion of more patients in the study relative to the prior period, and the inclusion of the combination portion of the MDNA11 study with KEYTRUDA during the current periods which had not commenced in the prior comparable period.
- An increase in discovery and pre-clinical expenses during the three months ended March 31, 2025 due to higher activity levels related to the Company's pre-clinical programs relative to the prior comparable period.
- Decreased chemistry, manufacturing and controls cost in the current period relative to the prior comparable period due to MDNA 11 stability studies being performed in the previous period which were not required in the current period.

### General and Administrative Expenses

	Three months ended March 31, 2025	Three months ended March 31, 2024
	\$	\$
<b>General and Administration Expenses</b>		
Public company expenses	500	1,281
Salaries and benefits	387	355
Stock based compensation	307	313
Facilities and operations	162	188
Depreciation expense	19	1
	<b>1,375</b>	<b>2,138</b>

G&A expenses of \$1.4 million were incurred during the three months ended March 31, 2025, compared with \$2.1 million during the three months ended March 31, 2024. The decrease in G&A expenses is primarily attributable to:

- A significant decrease in public company expenses during the three months ended March 31, 2025 relative to the prior comparative period due to lower D&O insurance premiums, reduced professional services including legal and audit fees, and a reduction in US-based investor and public relations expenses.

#### SUMMARY OF QUARTERLY FINANCIAL RESULTS:

	Mar. 31 2025	Dec. 31 2024	Sep. 30 2024	Jun. 30 2024	Mar. 31 2024	Dec. 31 2023	Sep. 30 2023	Jun. 30 2023
	\$	\$	\$	\$	\$	\$	\$	\$
General and administration	1,375	1,528	1,801	1,258	2,138	1,786	2,303	1,647
Research and development	4,344	3,592	3,726	2,782	1,863	2,991	3,134	2,812
Total operating costs	5,719	5,120	5,527	4,040	4,001	4,777	5,437	4,459
Change in fair value of warrant derivative	(6,747)	1,613	(1,253)	40	10,467	160	(960)	(1,747)
Net loss	1,187	(5,191)	(4,164)	(3,637)	(13,904)	(4,977)	(3,723)	(2,862)
Basic and diluted earnings (loss) per share	0.02	(0.07)	(0.05)	(0.05)	(0.21)	(0.07)	(0.05)	(0.04)
Total assets	28,382	32,239	32,929	38,025	19,134	23,268	27,743	31,546
Total liabilities	9,287	14,788	12,877	15,144	13,943	4,026	4,306	4,646

G&A expenses decreased slightly in the current quarter relative to the most recently completed quarter ended December 31, 2024 due primarily to public company expenses which have been trending down over the last year.

R&D expenses increased during the current quarter relative to the most recently completed quarter due to increasing clinical expenses related to the expansion of the MDNA 11 clinical trial which continues to enroll new patients. R&D expenses for the quarter ended March 31, 2025 and March 31, 2024 are net of \$1.1 million and \$1.0 million in refundable tax credits, respectively.

Net loss has been impacted since the quarter ended December 31, 2022 due to the non-cash change in the fair value of the warrant derivative which is recognized in the statement of profit and loss. 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 research and development 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 research and development activities, which has resulted in an accumulated deficit of \$118.3 million as of March 31, 2025. With current revenues only consisting of interest earned on cash and cash equivalents, losses are expected to continue while the Company's research and development programs are advanced.

The Company does not earn any revenues from its product candidates and is therefore considered to be in the development stage. As required, the Company will continue to finance its operations through the issuance of equity or pursue non-dilutive funding sources in the foreseeable future. The continuation of the Company's research and development activities for bizaxofusp, MDNA11 and the BiSKITs™ platform and the commercialization of bizaxofusp is dependent upon its ability to successfully finance and complete its research and development programs through a combination of equity financing, finance income, and potential 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 mid 2026.

## **CASH POSITION**

As at March 31, 2025, the Company had a cash and cash equivalents balance of \$24.9 million, compared to \$17.0 million at March 31, 2024. The Company invests cash in excess of current operational requirements in highly rated and liquid instruments. Working capital at March 31, 2025 was \$23.7 million (March 31, 2024 - \$16.2 million). These funds are expected to provide the Company with sufficient capital to execute planned expenditures through the completion of the ABILITY-1 study and through mid 2026.

The Company does 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 R&D activities. It is expected that negative cash flow from operations will continue until such time, if ever, that the Company receives marketing authorization to commercialize any of its product candidates under development and/or receives royalty or milestone revenue from any such products.

## **CONTRACTUAL OBLIGATIONS**

### ***Refundable tax credits***

The Company is entitled to receive approximately \$1.1 million through our Australian R&D incentive program relating to the year ended March 31, 2025. The amount receivable was recorded as a reduction in applicable research and development expenses in the year ended March 31, 2025 and remains receivable as at March 31, 2025. During the year ended March 31, 2025 the Company received \$0.2 million for a SRED claim for 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, minimum royalties, and other milestone payments.

As of March 31, 2025, the Company is obligated to pay the following:

<b>Contractual obligations</b>	<b>Less than 1 year</b>	<b>1-3 years</b>	<b>3-5 years</b>	<b>Total</b>
	\$	\$	\$	
Patent licensing, milestone and minimum royalty costs	259	589	503	1,351

The Company cannot reasonably estimate future royalties which may be due upon the commercialization 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 for the year ended March 31, 2025 consists of the Company's officers (Dr. Fahar Merchant, President and Chief Executive Officer, Mr. David Hyman, Chief Financial Officer and Ms. Rosemina Merchant, Chief Development Officer) and directors. For the year ended March 31, 2024 key management personnel consisted of Dr. Fahar Merchant, President and Chief Executive Officer, Mr. David Hyman, Chief Financial Officer, Ms. Rosemina Merchant, Chief Development Officer, Mr. Jeff Caravella, former Chief Financial Officer, Ms. Elizabeth Williams, former Chief Financial Officer, Mr. Humphrey

Gardener, former Chief Medical Officer, and Mr. Brent Meadows, former Chief Business Officer and directors.

The following compensation was earned for the periods indicated:

	<b>2025</b>	<b>2024</b>
	<b>\$</b>	<b>\$</b>
Salaries and wages	<b>1,384</b>	2,224
Board fees	<b>319</b>	329
Stock option expense	<b>1,471</b>	814
	<b>3,174</b>	3,367

As at March 31, 2025, the Company had trade and other payables in the normal course of business owing to directors and officers of \$0.1 million, (March 31, 2024 - \$0.2 million) related to 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](http://www.sedarplus.ca).

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](http://www.sedarplus.ca).

## **FINANCIAL RISK MANAGEMENT**

### *a) Fair value*

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

#### *Classification of financial instruments*

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

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

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

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

The Company classifies its financial assets and liabilities depending on the purpose for which the financial instruments were acquired, their characteristics, and management intent as outlined below: Cash and 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 income. The warrant derivative is measured using Level 2 inputs with assumptions as outlined in Note 14 of the Company's Annual Financial Statements and changes in fair value are recognized through profit or loss, with changes in fair value being recorded in net income.

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

basis and makes adjustments as necessary.

b) *Credit risk*

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

The Company manages credit risk associated with its cash and cash equivalents by investing its cash and cash equivalents in liquid investments with high-quality financial institutions. Other receivables have low credit risk as they are from government agencies.

c) *Interest rate risk*

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

d) *Liquidity risk*

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company currently settles all of its financial obligations out of cash and cash equivalents. The ability to do so relies on the Company maintaining sufficient cash in excess of anticipated needs. As at March 31, 2025, the Company's liabilities consist of accounts payable and accrued liabilities that have contracted maturities of less than one year.

e) *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 cash and cash equivalent 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 year ended March 31, 2025 of \$1.8 million (March 31, 2024 - \$1.0 million).

Balances in US dollars are as follows:

	March 31, 2025	March 31, 2024
	\$	\$
Cash and cash equivalents	12,330	8,177
Accounts payable and accrued liabilities	(1,084)	(1,061)
	11,246	7,116

## MANAGEMENT OF 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.

## 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, 2025, the following expenditures had been incurred (in thousands of US dollars):

Item	Amount to Spend (\$USD)	Spent to Date (\$USD)	Adjustments (\$USD)	Remaining to Spend (\$USD)
Phase 1/2 MDNA11 ABILITY Study	8,000	6,038	1,962	-
General corporate purposes and pre-clinical development of a BiSKIT candidate	8,000	8,000	-	-
<b>Total</b>	<b>16,000</b>	<b>12,234</b>	<b>-</b>	<b>-</b>

## 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. Drug development and commercialization involve a high degree of risk, and only a small number of research and development programs result in commercialization of a product. Results in early-stage clinical studies may not be indicative of full results or results from later stage or larger scale clinical studies and do not ensure regulatory approval. You should not place undue reliance on these statements or the scientific data presented.

An investor should carefully consider these risks, as well as the risks described in the Company's Annual Information Form, 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.sedarplus.ca](http://www.sedarplus.ca).

## 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 period ending March 31, 2025 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

As of March 31, 2025, 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:

	<b>Number</b>
Common shares	83,380,720
Warrants	13,333,334
Stock options	8,220,794
<b>Total</b>	<b>104,934,848</b>

For a detailed summary of the outstanding securities convertible into, exercisable or exchangeable for voting or equity securities of Medicenna at March 31, 2025, refer to notes 11, 12, and 13 of the Annual Financial Statements of the Company, available under the Company's profile on SEDAR at [www.sedarplus.ca](http://www.sedarplus.ca).