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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 6-K**

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES  
EXCHANGE ACT OF 1934**

**For the month of August 2023**

Commission File Number: **001-39458**

**Medicenna Therapeutics Corp.**  
(Translation of registrant's name into English)

**2 Bloor St. W., 7th Floor  
Toronto, Ontario M4W 3E2, Canada**  
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.  
Form 20-F  Form 40-F

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## Other Events

On August 14, 2023, Medicenna Therapeutics Corp. (“Medicenna” or the “Company”) issued a press release announcing certain management changes, including the appointment of Brent Meadows, MBA, as Chief Business Officer (CBO); the departure from the Company of Elizabeth Williams, who had served as Chief Financial Officer; the appointments of Delphine Davan, MSc, MBA, as VP of Investor Relations and Evelyn Pau, PhD, as VP of External Collaborations; and the promotion of Eamonn Peters, CPA, CA to VP of Finance and Minh To, PhD, to VP of Oncology Research. The press release is furnished as Exhibit 99.1 to this Form 6-K.

On August 9, 2023, Medicenna issued a press release providing a clinical update on the monotherapy dose escalation portion of its first-in-human, Phase 1/2 ABILITY Study in patients with advanced solid tumors, as its drug candidate MDNA11, a beta-only, long-acting IL-2 super-agonist, advances to the monotherapy dose expansion phase. The main objectives of the dose escalation stage of the Phase 1/2 ABILITY study were to evaluate MDNA11’s safety, tolerability, pharmacokinetics and pharmacodynamics (PK/PD), and preliminary anti-tumor activity to inform Recommended Dose for Expansion (RDE) selection in patients with advanced cancers that were refractory to up to 4 different lines of systemic therapy. A total of six dose escalation cohorts (MDNA11 dose ranging from 3mg/Kg to 120 mg/Kg) constituting 20 patients were evaluated, with the majority (75%) having also received at least one line of immunotherapy.

Key findings from the dose escalation portion of the study include:

1. 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.
2. 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%).
  - a. Confirmed partial response to single-agent MDNA11 in a highly aggressive tumor type: A patient in cohort 4 (60mg/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 (sum of tumor diameters of the target lesions) with complete regression of 2 out of 3 lesions. This patient continues on study treatment with MDNA11.
  - b. Prolonged stable disease in metastatic melanoma progressed on prior immune checkpoint inhibition: A patient in cohort 2 (commenced on 10 mg/kg dose and subsequently increased to 30, 60 and 90 mg/kg), having failed prior immunotherapy, experienced stable disease for 84 weeks.
3. 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<sup>+</sup>T cells and increasing NK cells, but with limited expansion of Tregs which can suppress anti-tumor immunity.
4. Based on the totality of the dose escalation data, a RDE of 90 mg/kg given every other week by IV infusion has been chosen for the monotherapy expansion phase of the trial.
5. Selection of specific cancers for evaluation in the monotherapy dose expansion phase was determined based on clinical data available from the ABILITY Study, discussions with Medicenna’s Clinical Advisory Board 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:
  - a. Melanoma
  - b. Non-Melanoma Skin Cancers
  - c. 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.

Medicenna expects to report initial results from ABILITY’s monotherapy dose expansion in the fourth quarter of 2023. Plans are to commence the combination phase of the trial evaluating MDNA11 with Keytruda in the fourth quarter of 2023, with initial results expected in early 2024. The press release was furnished as Exhibit 99.1 to the Form 6-K filed by the Company on August 9, 2023.

### Forward Looking Statements

This Form 6-K contains forward-looking statements within the meaning of applicable securities laws that relate to the future operations of the Company, plans and projections and other statements, including statements on the clinical development and potential of MDNA11 and the report of additional data, that are not historical facts. Forward-looking statements are often identified by terms such as “will”, “may”, “should”, “anticipate”, “expect”, “believe”, “seek”, “potentially” and similar expressions, and are subject to risks and uncertainties. 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. Important factors that could cause actual results to differ materially from the Company’s expectations include the risks detailed in the latest Annual Information Form and Annual Report on Form 20-F of the Company and in other filings made by the Company with the applicable securities regulators from time to time in Canada and the United States.

The reader is cautioned that assumptions used in the preparation of any forward-looking information may prove to be incorrect. Events or circumstances may cause actual results to differ materially from those predicted, as a result of numerous known and unknown risks, uncertainties, and other factors, many of which are beyond the control of the Company. The reader is cautioned not to place undue reliance on any forward-looking information. Such information, although considered reasonable by management, may prove to be incorrect and actual results may differ materially from those anticipated. Forward-looking statements contained in this news release are expressly qualified by this cautionary statement. The forward-looking statements contained in this news release are made as of the date hereof and except as required by law, we do not intend and do not assume any obligation to update or revise publicly any of the included forward-looking statements.

The information set forth above in this Form 6-K shall be deemed to be incorporated by reference into the registration statement on Form F-3 (File Number 333-269868) and Form S-8 (File Number 333-240225), and related prospectuses, as such registration statements and prospectuses may be amended from time to time, and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

The information in the attached Exhibit 99.1 is being furnished and shall not be deemed “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that Section, nor shall it be deemed incorporated by reference in

any filing made by the Company under the Securities Act of 1933, as amended, or the Exchange Act, except as otherwise set forth herein or as shall be expressly set forth by specific reference in such a filing.

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## EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
<a href="#">99.1</a>	<a href="#">Press Release dated August 14, 2023</a>

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## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**MEDICENNA THERAPEUTICS CORP.**

Date: August 14, 2023

By: /s/ Fahar Merchant, PhD  
Name: Fahar Merchant, PhD  
Title: Chief Executive Officer

## Medicenna Establishes Boston Presence, Appoints Brent Meadows as Chief Business Officer, and Bolsters Management

- *Company to grow business development, financing and clinical leadership in Boston by accessing top-biotech talent.*
- *Brent Meadows, MBA, joins as Chief Business Officer (CBO), bringing over 25 years of large pharma and biotech experience and a track record of multiple high-value transactions in oncology and immuno-oncology.*
- *After over 6 years as CFO, Ms. Elizabeth Williams has chosen to pursue another biotech opportunity. A search for her replacement is currently underway.*
- *Company strengthens the management team with the appointment of Delphine Davan, MSc, MBA, as VP of Investor Relations, Evelyn Pau, PhD, as VP of External Collaborations; promotion of Eamonn Peters, CPA, CA to VP of Finance and Minh To, PhD, as VP of Oncology Research.*

TORONTO and HOUSTON, Aug. 14, 2023 (GLOBE NEWSWIRE) -- Medicenna Therapeutics Corp. ("Medicenna" or "the Company") (NASDAQ: MDNA TSX: MDNA), a clinical-stage immunotherapy company, announced today the appointment of Brent Meadows, MBA, as its Chief Business Officer ("CBO"), as part of the Company's plans to establish a world-class C-suite in Boston, the industry's largest biotech hub. Mr. Meadows brings over 25 years of business development, commercial strategy and marketing experience at large pharma and biotech companies, including Johnson & Johnson, Bristol-Myers Squibb, Shire/Baxalta, and Regeneron, among others.

In this role, Mr. Meadows will be responsible for leadership of Medicenna's business development and corporate strategy, including structuring, negotiating and executing key alliances and partnerships with Medicenna's Phase 3 ready glioblastoma ("GBM") asset, bizaxofusp, and its pipeline of clinical and pre-clinical Superkines. Medicenna's strategic decision to expand its leadership team in Boston represents a significant milestone in the company's growth trajectory.

"On behalf of the Medicenna team, we are thrilled to welcome Brent as our CBO as we build our business development, financing and clinical leadership in Boston," said Dr. Fahar Merchant, President and CEO of Medicenna. "Brent is an accomplished biopharma leader with an outstanding track record of multiple oncology transactions at both large pharma and biotech companies. By strengthening our executive team with additional C- level appointments in Boston, we look forward to an exciting phase this year and next as we anticipate to reach multiple value inflection milestones with MDNA11's single-agent and combination dose expansion trials. Brent's leadership will be key to ensuring that the full potential of bizaxofusp and our Superkine platforms are captured across therapy areas to bring transformative medicines to patients."

Mr. Meadows said, "I am very excited to join Medicenna's team to build partnerships and execute transactions with its pipeline of highly differentiated clinical and pre-clinical Superkines, particularly its Phase 3 ready bizaxofusp, which has demonstrated encouraging results in patients with recurrent GBM, a devastating form of brain cancer. Medicenna is founded on transformational science, and I am looking forward to driving the Company's business development strategy as we execute our mission to bring these breakthroughs to more patients in need."

Prior to joining Medicenna, Mr. Meadows served as CBO at OncoOne, where he defined the company's overall business strategy with his cross-functional leadership and oversaw business development, including deal execution. He has also held senior-level positions in business development, commercial strategy and marketing at Regeneron, Bristol Myers Squibb, Biogen and several senior positions at Johnson and Johnson. While at AVEO Oncology and Baxalta/Shire, he led or co-led multiple transactions, each worth over \$1 billion. He has an MBA from Babson College and a BSc in Finance from University of Richmond.

In addition, Medicenna is strengthening its investor relations and financial teams with the appointment of Delphine Davan as Vice President of Investor Relations and Communications, and the promotion of Eamonn Peters to Vice President of Finance. In supporting our partnerships with world-class academic groups and biopharma companies, Evelyn Pau joins the Company as VP of External Collaborations and Minh To is promoted to VP of Oncology Research to support the progression of early-stage immuno-oncology programs toward the clinic.

The company also announces the departure of Elizabeth Williams, CPA, CA, from her role as Chief Financial Officer to pursue another biotech opportunity. "We thank Ms. Williams for her contribution to the Company since joining us in 2016 as CFO. We wish her the best of luck in her future endeavors," said Dr. Merchant. "This marks a strategic turning point for Medicenna, as we bolster our team with professionals committed to the highest standards in corporate development, finance and effective investor interactions," added Dr Merchant.

Ms. Williams stated: "It has been an honor to be a part of the Medicenna team, and I look forward to following the future success of the Company."

### About Medicenna

Medicenna is a clinical stage immunotherapy company focused on the development of novel, highly selective versions of IL-2, IL-4 and IL-13 Superkines and first in class Empowered Superkines. Medicenna's long-acting IL-2 Superkine, MDNA11, is a next-generation IL-2 with superior CD122 (IL-2 receptor beta) binding without CD25 (IL-2 receptor alpha) affinity thereby preferentially stimulating cancer killing effector T cells and NK cells. Medicenna's IL-4 Empowered Superkine, bizaxofusp (formerly MDNA55), has been studied in 5 clinical trials including a Phase 2b trial for recurrent GBM, the most common and uniformly fatal form of brain cancer. Bizaxofusp has obtained FastTrack and Orphan Drug status from the FDA and FDA/EMA,

respectively. Medicenna's early-stage BiSKITs™ program, (Bifunctional SuperKine ImmunoTherapies) is designed to enhance the ability of Superkines to treat immunologically "cold" tumors.

### **Forward Looking Statements**

*This news release contains forward-looking statements within the meaning of applicable securities laws that relate to the future operations of the Company, plans and projections and other statements, including statements on the development and potential of the Superkines, on any potential benefits that may be realized as a result of new members of the management team, on its growth and business development, financing and clinical activities, the access to top-biotech talent, the Company's corporate strategy and value inflection milestones with MDNA11's single-agent and combination dose expansion trials. Forward-looking statements are often identified by terms such as "will", "may", "should", "anticipate", "expect", "believe", "seek", "potentially," and similar expressions. and are subject to risks and uncertainties. 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. Important factors that could cause actual results to differ materially from the Company's expectations include the risks detailed in the latest Annual Information Form and Annual Report on Form 20-F of the Company and in other filings made by the Company with the applicable securities regulators from time to time in Canada and the United States.*

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For further information about the Company please contact:

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