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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 December 2021**

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 [ X ]

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): [ ]

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): [ ]

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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: December 17, 2021

By: /s/ Elizabeth Williams  
Name: Elizabeth Williams  
Title: Chief Financial Officer

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EXHIBIT INDEX

**Exhibit Number**   **Description**

[99.1](#)   [Press Release dated December 17, 2021](#)

## Medicenna Receives Regulatory Clearance to Expand the Phase 1/2 ABILITY Study of MDNA11 to Canada

-- ABILITY Study is currently ongoing at clinical trial sites in Australia and previously received FDA clearance to expand to sites in the United States

-- Preliminary update on safety and PK/PD data expected by year-end 2021

-- Initial efficacy data update expected in mid-2022

TORONTO and HOUSTON, Dec. 17, 2021 (GLOBE NEWSWIRE) -- Medicenna Therapeutics Corp. ("Medicenna" or "the Company") (NASDAQ: MDNA TSX: MDNA), a clinical stage immuno-oncology company, today announced that Health Canada has approved the expansion of the Phase 1/2 ABILITY (A Beta-only IL-2 ImmunoTherapY) study of MDNA11, the Company's long-acting, "beta-only" IL-2 super-agonist, to clinical trial sites in Canada.

The ABILITY Study is currently enrolling patients in Australia and recently received clearance from the U.S. Food and Drug Administration (FDA) to expand to clinical trial sites in the United States. A preliminary update on safety and pharmacokinetic/pharmacodynamic (PK/PD) data from early cohorts of patients enrolled in the dose escalation phase of the ABILITY Study is expected by year-end. Additional safety, PK/PD, biomarker and initial efficacy data from the trial is expected in mid-2022.

"We are making good progress in the ABILITY Study and expect this latest regulatory clearance to add to its positive momentum," said Dr. Fahar Merchant, President and CEO of Medicenna. "With the trial's first data update expected before the end of the year, we are poised to gain initial insights as to how MDNA11's promising preclinical profile translate to patients. We believe this early data together with updates in mid-2022 will contribute towards clinically validating the strong potential of MDNA11 and look forward to the trial's continued advancement."

The ABILITY Study is designed to assess the safety, PK, PD, and anti-tumor activity of various doses of intravenously administered MDNA11 in patients with advanced, relapsed, or refractory solid tumors. The trial includes an MDNA11 monotherapy arm, as well as a combination arm designed to evaluate MDNA11 with a checkpoint inhibitor. Approximately 80 patients are expected to be enrolled into the ABILITY Study. Following establishment of the recommended Phase 2 dose (RP2D) and optimal treatment schedule in the study's dose escalation phase, Medicenna plans to conduct a dose expansion phase that will enroll patients with renal cell carcinoma, melanoma, and other solid tumors in monotherapy and combination settings.

Medicenna anticipates that enrollment in the ABILITY Study across the United States, Canada, and Australia will be sufficient to meet the trial's objectives and stated timelines for the study. The Company may also pursue the trial's expansion into the United Kingdom, if required.

### 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 early-stage BiSKITs™ program, (Bifunctional SuperKine ImmunoTherapies) is designed to enhance the ability of Superkines to treat immunologically "cold" tumors. Medicenna's IL-4 Empowered Superkine, 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. MDNA55 has obtained Fast-Track and Orphan Drug status from the FDA and FDA/EMA, respectively.

### 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 and other statements that are not historical facts including, but not limited to, statements related to the clinical potential and development of MDNA11 and the timing for, and results related to, the Company's clinical trials and studies and enrollment in such clinical trials and studies. Forward-looking statements are often identified by terms such as "will", "may", "should", "anticipate", "expect", "believe", "seek" and similar expressions. All statements other than statements of historical fact, included in this release, including statements on the future plans and objectives of the Company, are forward-looking statements that 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 annual information form for the year ended March 31, 2021, which is available on SEDAR at [www.sedar.com](http://www.sedar.com), and Form 40-F of the Company filed with the United States Securities and Exchange Commission 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.

#### Further Information

For further information about the Company please contact:

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#### Investor Contact

For more investor information, please contact:

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