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 May 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): []

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: May 12, 2021 By: <u>/s/ Elizabeth Williams</u>

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

EXHIBIT INDEX

Exhibit Number Description

99.1 Press Release dated May 12, 2021

Medicenna Appoints Immuno-Oncology Expert Dr. Mann Muhsin as Chief Medical Officer

TORONTO and HOUSTON, May 12, 2021 (GLOBE NEWSWIRE) -- Medicenna Therapeutics Corp. ("Medicenna" or "the Company") (NASDAQ: MDNA TSX: MDNA), a clinical stage immuno-oncology company, today announced the appointment of Mann Muhsin, MD, as the Company's Chief Medical Officer.

"Mann's expertise in clinical trial design, execution and in-depth knowledge of the immuno-oncology therapeutic landscape, including IL-2, adds considerable depth to our diverse and highly talented management team," said Fahar Merchant, PhD, President and CEO of Medicenna. "His strategic skills, together with his extensive experience leading and effectively executing early and late stage clinical programs, will be an invaluable asset as we work to advance MDNA11 into human trials in the middle of the year and further expand our clinical pipeline. It is a pleasure to welcome Mann to Medicenna and I am pleased to have him as part of the team."

Dr. Muhsin commented, "I am excited to be joining Medicenna at this important time and am eager to begin leading the continued development of its growing clinical pipeline. The Superkine and BiSKITs™ platforms position the Company for success with their potential first- and best-in-class assets that are designed to address a wide array of cancers across the immunogenicity spectrum. I look forward to working with my new colleagues to leverage the power of these platforms to deliver promising cytokine-based immunotherapies to patients with unmet medical needs."

Dr. Muhsin is an accomplished industry leader with more than 20 years of experience in medical practice and drug development and has an outstanding track record of innovation in oncology and immuno-oncology trial design. He has considerable talent in building clinical development and science departments and advancing the strategic vision needed to prioritize, build and expand successful oncology clinical programs. Dr. Muhsin started his clinical research career at PICR phase I unit, where he conducted more than 17 clinical trials for international sponsors including AstraZeneca, Hoffmann La Roche, Merck, Novartis, Eli Lilly, Johnson & Johnson, and Bayer in the field of internal medicine prior to leading early clinical development programs at Janssen. Dr. Muhsin has also designed and executed early and late stage oncology trials for companies such as Oncosec, Halozyme Therapeutics, HUYA Bioscience and most recently at Nektar Therapeutics where he led the Phase 3 PIVOT-12 trial (pegylated IL-2, bempegaldesleukin, a pegylated IL-2 in combination with nivolumab) and global product strategy for NKTR-262 (a TLR 7/8 agonist). Furthermore, Mann has extensive experience with interleukins such as IL-2, IL-12, and pegylated IL-2, across multiple tumor types, is a global thought leader in immuno-oncology and the tumor microenvironment, and has authored dozens of publications, book chapters, and presentations globally. Dr. Muhsin received his doctorate of medicine MBChB (MD) and internal medicine training from Baghdad University School of Medicine prior to practicing medicine, civilian and at the US Army Medical Corps Combat Support Hospitals (CSH).

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 for the treatment of a broad range of cancers. Medicenna's long-acting IL-2 Superkine asset, MDNA11, is a next-generation IL-2 with superior CD122 binding without CD25 affinity and therefore preferentially stimulates cancer killing effector T cells and NK cells when compared to competing IL-2 programs. Medicenna's early-stage program on **Bi**functional **SuperKine ImmunoTherapies** (BiSKITs™) is designed to further enhance the ability of Superkines to treat immunologically "cold" tumors. Medicenna's lead IL4 Empowered Superkine, MDNA55, has completed a Phase 2b clinical trial for rGBM, the most common and uniformly fatal form of brain cancer. MDNA55 has been studied in five clinical trials involving 132 subjects, including 112 adults with rGBM. MDNA55 has obtained Fast-Track and Orphan Drug status from the FDA and FDA/EMA, respectively.

Forward-Looking Statement

This news release contains forward-looking statements under applicable securities laws and relate to the future operations of the Company and other statements that are not historical facts including statements related to clinical timelines for MDNA11, our ability to expand our clinical pipeline, the potential success of the Superkine and BiSKITsTM platforms and that their first- and best-in-class potential, and the presentation of additional data. Forward-looking statements are often identified by terms such as "will", "may", "should", "anticipate", "expects", "believes" and similar expressions. All statements other than statements of historical fact, included in this release, including the future plans and objectives of the Company, are forward-looking statements that involve 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 of the Company dated May 14, 2020 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 at the time of preparation, 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 of this news release and the Company will update or

revise publicly any of the included forward-looking statements only as expressly required by Canadian and United States securities law.

Further Information

For further information about the Company please contact:

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Investor Contact

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