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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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EXHIBIT INDEX

**Exhibit Number**    **Description**

[99.1](#)                    [Press Release dated August 1, 2023](#)

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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 1, 2023

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

## Medicenna Strengthens IP Portfolio with U.S. Patent Granted for the Use of Interleukin-2 Superkine Fusion Proteins in Oncology

- Medicenna Therapeutics Corp. has been granted U.S. Patent No. 11,680,090 titled “Interleukin-2 Fusion Proteins and Uses Thereof.”
- The patent covers a method for enhancing immune cell survival and proliferation or inhibiting cell death and therefore improving fitness of cancer fighting immune cells.

TORONTO and HOUSTON, Aug. 01, 2023 (GLOBE NEWSWIRE) -- Medicenna Therapeutics Corp. (“Medicenna” or “the Company”) (NASDAQ: MDNA TSX: MDNA), a clinical stage immunotherapy company, today announced the issuance of U.S. Patent No. 11,680,090, titled "Interleukin-2 Fusion Proteins and Uses Thereof." The patent further strengthens Medicenna's intellectual property around its BiSKIT™ (Bifunctional SuperKine for ImmunoTherapy) platform.

“Exhaustion and malfunction of cancer fighting immune cells severely limits the efficacy of current cancer immunotherapies. Our novel BiSKIT™ combines IL-2 receptor beta selective Superkines with Bcl-xL to prevent immune cell exhaustion and selectively increase effector T and NK cell populations,” said Fahar Merchant, Ph.D., President and CEO of Medicenna. “This patent is intended to expand the utility of our IL-2 derived BISKITs™ and strengthens our position in the field by offering a unique method to not only boost cancer fighting immune cells during treatment but also expedite the ex-vivo manufacture of healthy, robust and functional T and NK cells used in numerous cell based immunotherapies currently approved or in development for cancer treatment.”

The recently granted patent strengthens Medicenna's position, expanding its Superkine toolbox to further advance its contributions to the field of cancer immunotherapy. The patent protects a new method for enhancing fitness, survival and proliferation of cancer killing effector T cells and NK cells. Bcl-xL is a critical protein that repairs and maintains the integrity of mitochondria, which serve as the cell's primary “power generator”. By fusing IL-2 superkines to Bcl-xL, these first-in-class BiSKITs™ have the potential to further boost the anti-cancer activity of cancer fighting immune cells by improving their lifespan, health, quality and quantity and to avoid the “energy crisis” which is frequently encountered with current cancer immunotherapies.

The new patent complements U.S. Patent No. 10,781,242 (covering composition and methods for IL-2 Superkine Bcl-xL fusions) and diversifies the platform where 3 previously issued patents, related to delivery of Bcl-xL via IL4/IL13 receptors, were described for potential treatment of degenerative conditions such as Alzheimer’s disease, muscular dystrophy and multiple sclerosis (announced on June 9, 2022). The Company’s Superkine patent estate is currently comprised of 56 granted and 61 pending patent applications.

### 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, 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.

### 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, potential and patent protection of the Company’s IL-2 Superkines. 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.*

## Further Information

For further information about the Company please contact:

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## Media Contact

For media inquiries, please contact:

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