



Medicenna Therapeutics Doses First Patient in Phase 2 Monotherapy Dose Expansion Portion of the ABILITY Study Evaluating MDNA11 in Select Types of Solid Tumors

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New data from the Phase 1 dose-escalation and evaluation portion of the trial will be presented at the Society of Immunotherapy for Cancer (SITC) Annual Meeting on November 4, 2023

Company expects to report initial results from both the monotherapy and combination arms of the Phase 2 dose expansion study in H1 2024

TORONTO and HOUSTON, Oct. 25, 2023 (GLOBE NEWSWIRE) -- Medicenna Therapeutics Corp. ("Medicenna" or the "Company") (Nasdaq: MDNA TSX: MDNA), a clinical-stage immunotherapy company focused on the development of novel Superkines, today announced dosing of the first patient in the Phase 2 monotherapy dose expansion portion of the Phase 1/2 ABILITY (A Beta-only IL-2 ImmunoTherapY) study evaluating MDNA11, a long-acting, beta-only interleukin-2 (IL-2) super-agonist.

"We are excited to dose our first patient in Phase 2 clinical trial as we build critical momentum for MDNA11, a potentially best-in-class, next-generation IL-2 super-agonist for the treatment of advanced solid tumors," said Fahar Merchant, Ph.D., President and CEO of Medicenna. "Dosing the first patient in the Phase 2 monotherapy dose expansion portion of the ABILITY study is an important milestone that follows encouraging therapeutic activity and tolerability observed during the Phase 1 dose escalation study. Having established the optimal dosing regimen, we look forward to reporting initial results from the monotherapy and combination arms of the Phase 2 dose expansion portion of the study in the first half of 2024. The combination arm of the trial evaluating MDNA11 with pembrolizumab is expected to commence by the end of this year."

In the Phase 1 monotherapy dose escalation portion of the study, which evaluated 20 patients, MDNA11 was well tolerated with promising single-agent activity. As of the data cutoff date of June 20, 2023, responses included one confirmed durable (> one year) partial response in a heavily pretreated patient with metastatic pancreatic cancer who continues on treatment with MDNA11 and six patients with stable disease. Of note, one patient with melanoma experienced prolonged stable disease, which lasted over 1.5 years.

The ABILITY-1 study ([NCT05086692](https://clinicaltrials.gov/ct2/show/study/NCT05086692)) is a global, multi-center, open-label study that assesses the safety, tolerability, pharmacokinetics, pharmacodynamics and anti-tumor activity of MDNA11 as monotherapy or in combination with pembrolizumab (Keytruda®). In the monotherapy dose expansion of the Phase 2 study, up to 40 patients are expected to be enrolled and administered MDNA11 (90µg/kg) intravenously once every two weeks. The expansion cohorts in the monotherapy arm of the study include advanced melanoma, non-melanoma skin cancer or microsatellite instability (MSI)-high or mismatch repair (MMR) deficient cancers.

About MDNA11

MDNA11 is an intravenously administered, long-acting "beta-only" recombinant interleukin-2 (rIL-2) specifically engineered to overcome the shortcomings of rIL-2 (aldesleukin) by preferentially activating immune effector cells (CD8+ T and NK cells) responsible for killing cancer cells, with minimal or no stimulation of immunosuppressive Tregs. These unique proprietary features of the IL-2 Superkine have been achieved by incorporating seven specific mutations and genetically fusing it to a recombinant human albumin scaffold to improve the pharmacokinetic (PK) profile and pharmacological activity of MDNA11 due to albumin's natural propensity to accumulate in highly vascularized sites and tumor draining lymph nodes. MDNA11 is currently being evaluated in the Phase 1/2 ABILITY-1 study as both a monotherapy and in combination with pembrolizumab (Keytruda®).

About Medicenna Therapeutics

Medicenna Therapeutics is a clinical-stage immunotherapy company developing engineered cytokines, called Superkines, designed to improve the specificity, function, and safety profile of unmodified interleukins. Medicenna owns diverse platforms licensed from Stanford University to develop a pipeline of Superkine candidates: interleukin-2 (IL-2), IL-4 and IL-13 super-agonists and antagonists. MDNA11, a potential best-in-class, next-generation IL-2 super agonist targeting solid tumors, is currently in a Phase 2 monotherapy dose expansion trial and expected to begin a Phase 2 pembrolizumab combination trial in the fourth quarter of 2023. Medicenna's IL-4-empowered Superkine, bizaxofusp (MDNA55), has completed a Phase 2b trial for recurrent glioblastoma and holds FastTrack and Orphan Drug status from the U.S. Food and Drug Administration (FDA) and FDA/European Medicines Agency, respectively. Medicenna also creates Bifunctional SuperKine Immunotherapies (BiSKITs), which have demonstrated superior anti-tumor activity in preclinical studies, even in hard-to-treat 'cold' tumors. For more information, please visit <https://www.medicenna.com/>.

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 that are not historical facts, including, without limitation, statements on the clinical development and potential of MDNA11; and the timeline for reporting results and additional data. 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.

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