Medicenna Therapeutics Reports Second Quarter Fiscal 2024 Financial Results and Operational Highlights

November 14, 2023

Cash runway extended through multiple data readouts and into Q1 of calendar 2025

MDNA11 is generally well tolerated and continues to demonstrate encouraging single-agent activity from Phase 1 portion of the ABILITY-1 Study including 100% and 70% reduction of target lesions in pancreatic and melanoma cancer patients, respectively

Four-year follow-up survival results from Phase 2b bizaxofusp (MDNA55) study in patients with recurrent glioblastoma selected for presentation at SNO 2023 on November 17, 2023

TORONTO and HOUSTON, Nov. 14, 2023 (GLOBE NEWSWIRE) -- Medicenna Therapeutics Corp. ("Medicenna" or the "Company") (TSX: MDNA; OTC: MDNAF), a clinical-stage company focused on the design and development of novel evolutionary superkines to create revolutionary immunotherapies, today announced financial results and corporate highlights for the second quarter of fiscal 2024, ended September 30, 2023.

"We are pleased that our cash runway now extends through multiple data readouts in mid-2024 and into the first quarter of 2025, which provides potential opportunities for additional milestones across our programs." said Fahar Merchant, Ph.D., President, and Chief Executive Officer of Medicenna. "At SITC 2023, we shared positive clinical data readouts for MDNA11. The Phase 1 dose escalation data from the ABILITY-1 study demonstrated that MDNA11 is generally well tolerated and results in durable single-agent activity, including deep ongoing responses with 100% reduction of target lesions in a pancreatic cancer patient and 70% reduction of target lesion in a melanoma cancer patient. This week at SNO 2023, we will be reporting 4-year follow-up survival data from the Phase 2b bizaxofusp study in patients with recurrent glioblastoma, a uniformly fatal form of brain cancer."

"Another key achievement from the period was dosing the first patient in the Phase 2 dose expansion monotherapy arm of the ABILITY-1 study. In addition, we expect to commence the combination portion of the ABILITY-1 study before the end of this year evaluating MDNA11 with pembrolizumab (Keytruda®). We look forward to reporting initial Phase 2 dose expansion data from both the monotherapy and combination arms during the first half of 2024," concluded Dr. Merchant.

Pipeline Highlights

MDNA11

- **Reported updated Phase 1 MDNA11 dose escalation data at SITC 2023.** In early November 2023, Medicenna reported encouraging single-agent activity from the dose escalation and evaluation portion of the ABILITY-1 study in advanced cancer patients receiving doses ≥60 µg/kg of MDNA11 (N=15) and who had previously failed immune check-point inhibitor therapies. The results included ongoing partial responses with 100% and 70% reduction of target lesions in pancreatic and melanoma cancer patients, respectively, in addition to durable stable disease in 3 melanoma patients (>20 to 80 weeks).
- **Dosed first patient in Phase 2 monotherapy arm.** In October 2023, Medicenna dosed the first patient in the Phase 2 monotherapy dose expansion portion of the Phase 1/2 ABILITY study evaluating MDNA11 in patients with advanced melanoma, non-melanoma skin cancer or microsatellite instability (MSI)-high or mismatch repair (MMR) deficient cancers. Up to 40 patients are expected to be enrolled and administered MDNA11 (90 µg/kg intravenously [IV] Q2W). The Company expects to report initial data from the monotherapy arm in the first half of 2024.

Bizaxofusp (MDNA55)

- **Presenting 4-Year Follow-up overall survival data from Phase 2b bizaxofusp study.** A poster presentation and an oral summary highlighting long-term follow up from the Phase 2b clinical trial of bizaxofusp (formerly known as MDNA55) in patients with recurrent glioblastoma (rGBM), the Company's first-in-class IL-4R targeted therapy, will be presented at the Society for Neuro-Oncology (SNO) 2023 Annual Meeting, to be held from November 15-19, 2023, in Vancouver, Canada.
- **Exploring partnerships to fund pivotal study.** Following the print publication of the Phase 2b clinical results in the June 2023 issue of the journal *Neuro-Oncology*, where bizaxofusp demonstrated a doubling of survival versus standard of care in patients with rGBM, Medicenna has embarked on a comprehensive effort to explore partnership opportunities for a Phase 3 registration trial.

Other Pipeline Programs

- **Presented preclinical data for MDNA113 at SITC 2023.** Medicenna presented preclinical data for MDNA113, a first-in-class IL-13Rα2 targeted therapy that delivers a masked bi-specific IL-2-anti-PD1 Superkine to the tumor micro-environment. The data demonstrated proof-of-concept for the Company's novel T-MASK (**T**argeted **M**etalloprotease **A**ctivated **S**uper**K**ine) platform technology. The data showed reduced IL-2R agonism with no change to PD1/PDL-1

blockade and reduced systemic lymphocyte expansion providing evidence of dampening of systemic activity. In addition, the preclinical data showed that cleavage of MDNA113 by tumor associated metalloproteases restores IL-2R signaling and that MDNA113 is as effective as non-masked MDNA223 (a bispecific antiPD1-IL-2 superkine) in tumor models.

- **Presented preclinical data for MDNA223 at AACR's Special Conference in Cancer Research: Tumor Immunology and Immunotherapy.** Medicenna presented new preclinical data on MDNA223, a fusion of MDNA11 combined with an anti-PD1 antibody, that is designed to maximize anti-tumor response by concurrently facilitating IL-2R pathway stimulation and PD1 checkpoint blockade on the same effector immune cell. The data support the potential of Medicenna's superkine-focused platform to create novel therapies for challenging-to-treat 'cold' tumors.
- **Strengthened intellectual property portfolio.** Medicenna received a U.S. patent for the use of Interleukin-2 Superkine fusion proteins in oncology. This patent strengthens the Company's intellectual property around its BiSKIT (Bifunctional SuperKine for ImmunoTherapy) platform.

Corporate and Financial Highlights

- **Management changes.** Key new leadership team appointments include Humphrey Gardner, M.D., as Chief Medical Officer and Arash Yavari, M.D., DPhil, as Chair of the Development Advisory Committee.
- **Delisted from Nasdaq Capital Market.** Medicenna's common stock ceased trading on Nasdaq on November 2, 2023. The Company anticipates significant financial savings as a result of this decision. The Company has applied to have its common shares traded on the OTC Markets. Medicenna's common stock continues to trade on the Toronto Stock Exchange (TSX).

Expected Upcoming Milestones

- Report 4-year follow-up survival data from the Phase 2b bizaxofusp study in patients with rGBM at the SNO conference to be held from 15-19 November, 2023
- Commence the combination arm of the ABILITY study evaluating MDNA11 with pembrolizumab (KEYTRUDA®) e.
- Clinical update from the ABILITY study's MDNA11 Phase 2 monotherapy arm expected in the first half of 2024.
- Clinical update from the ABILITY study's MDNA11 plus pembrolizumab Phase 2 combination arm expected in the first half of 2024.

Financial Results

As of September 30, 2023, cash and cash equivalents were $25.7 million, compared to $29.6 million on June 30, 2023.

Net loss for the quarter ended September 30, 2023, was $3.7 million or $(0.05) per share compared to a net loss of $0.9 million or ($0.01) per share for the quarter ended September 30, 2022. The increase in net loss for the quarter ended September 30, 2023, compared with the quarter ended September 30, 2022, was primarily a result of increased research and development expenditures related to the clinical costs associated with the MDNA11 ABILITY-1 study, and increased licensing and patent legal fees.

Research and development expenses of $3.1 million were incurred during the quarter ended September 30, 2023, compared with $2.4 million incurred in the quarter ended September 30, 2022. The increase in R&D expenses for the quarter ended September 30, 2023 was primarily attributable to increased licensing and patent legal fees related to timing as well as intellectual property activities in the current year quarter, higher clinical costs related to the MDNA11 ABILITY study in the current year period, and increased salaries and benefits due to increase in headcount to support the MDNA11 ABILITY-1 study.

General and administrative expenses of $2.3 million were incurred during the quarter ended September 30, 2023, compared with $2.4 million during the quarter ended September 30, 2022. The decrease in G&A expenses was primarily attributable to an increase in public company expenses, and salaries and benefits due to increase in headcount, partially offset by the one-time transaction costs associated with warrant derivative in the six month period ended September, 30, 2022 only.

About Medicenna Therapeutics

Medicenna is a clinical-stage immunotherapy company focused on developing novel, highly selective versions of IL-2, IL-4 and IL-13 Superkines and first in class class-empowered superkines. Medicenna's long-acting IL-2 Superkine, MDNA11, is a next-generation IL-2 with superior affinity toward CD122 (IL-2 receptor beta) and no CD25 (IL-2 receptor alpha) binding, 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 enrolling over 130 patients, 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 (**Bi**functional **S**uper**K**ine **I**mmuno**T**herapies) is designed to enhance the ability of Superkines to treat immunologically "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 Company's cash runway, clinical development activities, potential, safety profiles and upcoming milestones and data reporting, including with respect to MDNA11, MDNA113, MDNA223, the Superkine platform, notably MDNA55, partnership opportunities, patent protection and cost savings related to NASDAQ delisting. 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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