

Medicenna Presents Clinical Data on Initial Experience from Ongoing Phase 2b Study of MDNA55

Study Shows Successful Delivery in Brain Cancer Patients and Reassuring Safety Profile

Toronto, Canada and Houston, Texas; October 10, 2017 – Medicenna Therapeutics Corp. (“Medicenna” or “the Company”) (TSX “MDNA”), a clinical stage immuno-oncology company, announced that new clinical data presented today at the 2017 Congress of Neurological Surgeons (“CNS”) (Boston, MA), demonstrated successful delivery in brain cancer patients and a reassuring safety profile for MDNA55, the company’s lead immunotherapeutic agent targeting the interleukin-4 receptor (IL-4R).

In the study MDNA55-05, investigators administer MDNA55 directly into Glioblastoma (“GBM”) brain tumors using a technique known as Convection Enhanced Delivery (“CED”). CED allows precision delivery of MDNA55 at high concentrations into the tumor tissue while avoiding exposure to the rest of the body. The current Phase 2b clinical trial plans to enroll 52 adult patients with recurrent GBM (“rGBM”) at leading brain cancer centers in the US. A planned review of the first treated patients was conducted to ensure patient safety and to assess effectiveness of the CED technique.

Senior investigator John H. Sampson MD, PhD, of Duke University Medical Center Department of Neurosurgery, who presented the data at the CNS meeting stated, “Our initial analyses show a substantially higher proportion of the target tissue being covered than in previous similar trials. In some cases, close to 100% of the tumor and the 1cm margin around it (at risk for tumor spread) has been successfully covered.”

“Drug delivery to the brain has been a challenge and these initial data are a significant advance in our attempt to safely and efficiently deliver our targeted cancer immunotherapy agent MDNA55,” said Martin Bexon MD, Head of Clinical Development for Medicenna. “Our initial experience has shown that it is possible to accurately deliver the volumes at high flow rates necessary for distribution of MDNA55 in and around the tumor. This was achieved with a reassuring safety profile, such that our safety committee recommended continuation of the study.” Dr. Bexon went on to praise the study’s investigators, “I must pay tribute to the high level of skill demonstrated by the neurosurgeons working on this study using leading edge techniques to give their patients the best possible chance of benefitting from MDNA55.”

The study was designed to analyze the clinical outcomes of patients treated with MDNA55, which selectively targets cells expressing the IL4-R both in glioblastoma tumor cells and in immunosuppressive cells in the tumor microenvironment. The study is ongoing and the abstract of the presentation is available [here](#).

About Medicenna Therapeutics Corp.

Medicenna is a clinical stage immuno-oncology company developing novel highly selective versions of IL-2, IL-4 and IL-13 Superkines™ and first in class Empowered Cytokines™ (ECs). Its wholly owned subsidiary, Houston-based Medicenna BioPharma, is specifically targeting the Interleukin-4 Receptor (IL4R), which is over-expressed by at least 20 different types of cancer affecting more than one million new cancer patients every year. Medicenna's lead IL4-EC, MDNA55 is enrolling patients in a Phase 2b clinical trial for rGB at leading brain

cancer centres in the US. MDNA55 has completed 3 clinical trials in 72 patients, including 66 adults with rGB, demonstrated compelling efficacy and obtained Fast-Track and Orphan Drug status from USFDA. Unlike most other cancer therapies, Medicenna's IL4-ECs have the potential to purge both the tumor and the immunosuppressive tumor microenvironment, offering a unique treatment paradigm for a large majority of cancer patients.

For more information, please visit www.medicenna.com.

This news release contains forward-looking statements relating to the future operations of the Company and other statements that are not historical facts. Forward-looking statements are often identified by terms such as "will", "may", "should", "anticipate", "expects" and similar expressions. All statements other than statements of historical fact, included in this release, including, without limitation, statements regarding future plans and objectives of the Company, statements related to drug delivery and tumor coverage as well as other statements related to the ongoing status of the Phase 2b clinical trial of MDNA55 for the treatment of recurrent glioblastoma and others 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 June 15, 2017 and in other filings made by the Company with the applicable securities regulators from time to time.

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 securities law.

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