MEDICENNA ANNOUNCES MARCH 31, 2018 YEAR-END RESULTS AND PROVIDES UPDATE ON CLINICAL PROGRAM

Toronto, Ontario and Houston, Texas, June 27, 2018 - Medicenna Therapeutics Corp. ("**Medicenna**" or the "**Company**") (TSX: MDNA, OTCQX: MDNAF), a clinical stage immunotherapy company, today announced its operational and financial results for the year ended March 31, 2018.

"We are quite pleased with the progress we have made this year," said Fahar Merchant, PhD, Chairman, President and CEO. "We are past the mid-stage of the Phase 2b clinical trial of MDNA55 in patients with recurrent glioblastoma (rGBM), a uniformly fatal form of brain cancer, and have seen early signs of tumor response and impressive overall survival rate at 6 months (OS-6) of 90 percent following a single treatment with low doses of MDNA55. With exceptional drug distribution and a desirable safety profile to date, we plan to treat the remaining patients before the end of 2018 at the higher maximum tolerated dose with an option for repeat treatment in patients showing benefit. We have also accelerated the development of MDNA109, the only CD122 biased high-affinity IL-2 in development, designed to selectively stimulate cancer-fighting T and natural killer (NK) cells and expect to have a long-acting lead candidate in the next six months. Finally, we graduated to the main board of the TSX and listed on the OTCQX. We have laid the groundwork for success in fiscal 2018 and look forward to achieving key milestones in fiscal 2019."

Program updates for the year ended March 31, 2018 are as follows:

MDNA55

- On October 10, 2017, results from the Cancer Prevention and Research Institute of Texas (CPRIT) funded on-going Phase 2b rGBM study were presented at the 2017 Congress of Neurological Surgeons (Boston, MA) demonstrating successful delivery in brain cancer patients and a reassuring safety profile for MDNA55 as well as a substantially higher proportion of the target tissue being covered than in similar previously conducted trials. In some cases, close to 100 percent of the tumor and the 1cm margin around it (at risk for tumor spread) had been successfully covered.

- In November, further drug distribution and safety data were presented at the Annual Meeting of the Society for Neuro-Oncology (San Francisco, CA) on the first 15 patients in the study confirming earlier results presented at the 2017 Congress of Neurological Surgeons.

- On May 2, 2018, Medicenna announced that half the patients in the ongoing Phase 2b study of MDNA55 in recurrent glioblastoma had been recruited and that the data to date demonstrated solid safety results and early signals of efficacy based on the findings of the Safety Review and Clinical Advisory Committees, comprised of key opinion leaders and study investigators. Following the recruitment milestone, the protocol was amended to implement optimal methodologies for treatment of the remaining patients, including more personalized dosing based on tumor load, incorporation of advanced imaging to more reliably measure treatment responses, and the ability to administer a second dose of MDNA55 where appropriate.

- On April 27, 2017 we announced the issuance of a US Patent related to our lead clinical candidate MDNA55. U.S. Patent 9,629,899, issued to the U.S. Department of Health and Human Services and licensed exclusively to Medicenna, covers the combination of MDNA55 with other anti-cancer therapeutic agents.

Superkine Platform

- MDNA109 is an IL-2 Superkine licensed from Stanford University and has been engineered to make existing cancer therapies work for more people. By selectively boosting the cancer fighting T and NK cells, it can dramatically improve the anti-tumor activity of treatments such as checkpoint inhibitors, cancer vaccines, CAR-T therapies and oncolytic viruses. New long-acting variants of MDNA109 have shown promising early pre-clinical results in aggressive models of melanoma when administered sub-cutaneously (under the skin)

potentially allowing convenient once weekly or bi-weekly treatments as opposed to daily intravenous (IV) infusions.

- The U.S. Patent & Trademark Office issued Medicenna a patent related to the Company's Superkine platform. U.S. Patent 9,738,696, issued to the Board of Trustees of the Leland Stanford Junior University ("Stanford") and licensed exclusively to Medicenna, covers the composition of engineered IL-4 Superkines.

Operational Highlights

- On August 1, 2017, the Company announced the graduation of its common shares to the main board of the TSX, the premier stock exchange in Canada.

- On September 21, 2017, the Company appointed William W. Li, MD, an experienced oncology drug development expert, to its Board of Directors.

- On October 18, 2017, the Company's common shares were listed on the OTCQX, a segment of the OTC marketplace reserved for high-quality non-U.S. companies, under the symbol, "MDNAF."

Annual Financial Results

Net loss for the year ended March 31, 2018 was $7,465,452, compared to a net loss of $7,631,265 for the year ended March 31, 2017. The decrease in net loss in the year ended March 31, 2018 compared with the year ended March 31, 2017 was primarily a result of one-time costs incurred in the prior year including a liquidity payment and a non-cash listing expense of $1,784,414 resulting from the reverse takeover transaction completed in the year ended May 31, 2017. These decreases from the prior year were offset by increased spending on the Phase 2b clinical trial of MDNA55 as well as increased costs incurred on the pre-clinical pipeline, specifically MDNA109 during the year ended March 31, 2018.

Research and development expenses for the year ended March 31, 2018 were $5,090,146, compared to $4,229,110 for the year ended March 31, 2017. The increase is primarily due to costs associated with the initiation of discovery and pre-clinical activities associated with the Superkine programs including MDNA109 as well as the development of MDNA57 (second generation MDNA55). In addition, clinical costs increased significantly in the current year due to patient treatment and related expenses in the Phase 2b clinical trial of MDNA55 for which the first patient was treated in April 2017. These increases were partially offset by reduced costs associated with the manufacture, testing and stability studies of MDNA55 drug product, as well as lower licensing, patent legal fees and royalty expense due to the one-time liquidity payment discussed above.

General and administrative expenses for the year ended March 31, 2018 were $2,334,684, compared to $1,684,671 for the year ended March 31, 2017. The increase is primarily due to higher stock-based compensation expense, fees associated with the graduation of Medicenna's common shares from the TSX Venture exchange to the main TSX Board, the OTCQX listing, investor relations activities and fees paid to the Board of Directors. The noted increases are partially offset by lower salary and benefit costs in the year ended March 31, 2018 due to severance costs incurred in the prior year as well as lower legal, professional and finance expenses in the year ended March 31, 2018 due to costs related to the reverse takeover transaction incurred in the prior year.

Medicenna had a cash balance of $3,938,734 at March 31, 2018.

Outlook

The Company will focus on completing patient enrollment for its Phase 2b clinical trial for MDNA55 in the fourth quarter of calendar 2018 and expects top-line clinical results in early 2019. Medicenna also plans to select a MDNA109 lead candidate with extended half-life characteristics.

About Medicenna Therapeutics

Medicenna is a clinical stage immunotherapy company developing novel highly selective versions of IL-2, IL-4 and

IL-13 Superkines and first in class Empowered Cytokines™ (ECs). Our mission is to become the leader in the development and commercialization of targeted Empowered Cytokines™ and Superkines for the treatment of a broad range of cancers and immune-mediated diseases. We seek to achieve these successful treatments by drawing on our expertise, and that of world-class collaborators, to develop a unique set of Superkines. These Superkines can be developed either on their own as short or long-acting therapeutics or fused with pro-apoptotic proteins in order to precisely deliver potent cell-killing agents to the cancer cells as well as the immunosuppressive tumor micro-environment and the cancer stem cells without harming healthy cells. MDNA55 is Medicenna's lead EC in clinical development for the treatment of rGBM and is funded by a grant from the Cancer Prevention and Research Institute of Texas (CPRIT). It is a fusion of a circularly permuted version of interleukin (IL-4), fused to a potent fragment of the bacterial toxin, Pseudomonas exotoxin (PE). MDNA55 has been studied in three clinical trials in 72 patients with rGBM, a uniformly fatal form of brain cancer, in which it has shown compelling indications of superior efficacy to the current standard of care. MDNA55 has secured Orphan Drug Status from the United States Food and Drug Administration (FDA) and the European Medicines Agency as well as Fast Track Designation from the FDA for the treatment of rGBM.

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 including, without limitation, statements related to the ongoing Phase 2b clinical trial of MDNA55 for the treatment of recurrent glioblastoma and the anticipated effects of the increased dose and amended protocol, the development timelines for both MDNA55 and MDNA109 and 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 June 26, 2018 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.

For further information about the Company please contact: Fahar Merchant, President and Chief Executive Officer, 604-671-6673, fmerchant@medicenna.com; Elizabeth Williams, Chief Financial Officer, 416-648-5555, ewilliams@medicenna.com.

Media Contact: Mike Beyer, Sam Brown Inc., 1-312-961-2501, mikebeyer@sambrown.com