Medicenna Provides Positive Interim Update From Phase 2b Trial of MDNA55 in Recurrent Glioblastoma

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TORONTO and HOUSTON, TX, Oct. 31, 2018 /CNW/ - Medicenna Therapeutics Corp. ("**Medicenna**" or "the **Company**") (TSX: MDNA and OTCQB: MDNAF) a clinical stage immuno-oncology company, today announced promising interim efficacy and safety results from patients treated at low doses in the on-going Phase 2b clinical trial of MDNA55 in recurrent glioblastoma ("rGBM"), the most common and uniformly fatal form of brain cancer.

The open-label study, funded in part by a non-dilutive grant from the Cancer Prevention and Research Institute of Texas (CPRIT), is designed to evaluate the efficacy and safety of MDNA55 in approximately 52 adults with rGBM at 1st or 2nd relapse following previous treatments and where tumor resection at relapse is not sanctioned. MDNA55 was administered one time directly into the tumor using a minimally invasive technique known as Convection Enhanced Delivery. A total of 27 subjects were enrolled in the low dose cohorts and administered 1.5 or 3.0 mg/mL of MDNA55 with a median dose of 88 µg. Enrolment in the second half of the study incorporating a higher dose of MDNA55 at a concentration of at least 6 mg/mL (but not to exceed the established MTD of 240mg) is well underway with at least 12 patients safely treated to date.

Results from the low dose cohorts showed promising median overall survival of 9.8 months following a single treatment with an overall survival rate of 89% at 6 months, 58% at 9 months and 47% at 12 months. This materially exceeds survival rates reported for approved drugs for rGBM; survival rates for MDNA55 at 6, 9 or 12 months are 44% to 81% better than that of Avastin and 35% to 57% better than Lomustine.

Compound	**Population (n)**	**Survival**			
		mOS (mos.)	**OS6**	**OS9**	**OS12**
MDNA55-05 Low Dose Cohorts	rGBM (n=27)	9.8	89%	58%	47%
Avastin[1]	rGBM (n=50)	8.0	62%	38%	26%
Lomustine[1]	rGBM (n=46)	8.0	65%	43%	30%

1 Taal et al, Single-agent bevacizumab or lomustine versus a combination of bevacizumab plus lomustine in patients with recurrent glioblastoma (BELO B trial): a randomised controlled phase 2 trial. Lancet Oncol 2014 Aug;15(9):943-53.

Furthermore, a preliminary review of post-treatment MRIs conducted at each of the individual sites showed tumor shrinkage or stabilization for at least 8 weeks without clinical decline in 11 of 26 evaluable subjects treated at the low doses corresponding to a disease control rate of 42%.

"The data presented today are very encouraging particularly in patients with rGBM, who face a grim diagnosis," said Dr. Fahar Merchant, Ph.D, President and CEO of Medicenna. "While these are interim data, the ability to demonstrate a substantial survival benefit in this advanced and difficult to treat patient population is extremely rare. If the final data are consistent with these results, MDNA55 could offer new hope to GBM patients and their families. We have completed 75% of the recruitment to date, expect to be fully enrolled by early 2019, report top line data in mid-2019 followed by an End of Phase 2 (EOP2) meeting with the USFDA. Medicenna is also exploring MDNA55 for use in newly diagnosed GBM as these patients typically present with much stronger immune systems and may stand to derive an even greater benefit," concluded Dr. Merchant.

"All patients enrolling in this study had actively progressing disease and were on a downward slope with a bleak outlook. After only a single treatment with MDNA55, preliminary results demonstrate that over 40% of the subjects showed tumor shrinkage, slowing or halting of tumor progression consistent with a meaningful clinical benefit," said Dr. Martin Bexon, Head of Clinical Development at Medicenna. "Signs of biological activity leading to efficacy at lower dose-levels seen in this trial, may indicate that the higher doses now being tested could provide additional therapeutic benefit to rGBM patients, as shown in earlier studies," commented Dr. Bexon.

Review of safety data to date including the high dose cohorts showed that the safety profile of MDNA55 was unchanged from previous studies with no systemic toxicities detected and no drug related deaths. As expected, treatment-related adverse events were primarily neurological/aggravation of pre-existing neurological deficits characteristic with GBM and have generally been manageable with standard measures.

About Medicenna

Medicenna is a clinical stage immunotherapy company focused on oncology and the development and commercialization of novel, highly selective versions of IL-2, IL-4 and IL-13 Superkines™ and first in class Empowered Cytokines™ (ECs) for the treatment of a broad range of cancers. Medicenna's 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. Supported by a significant non-dilutive grant from CPRIT (Cancer Prevention and Research Institute of Texas), Medicenna's lead IL4-EC, MDNA55 is enrolling patients in a Phase 2b clinical trial for recurrent glioblastoma (rGBM), the most common and uniformly fatal form of brain cancer, at top-ranked brain cancer centres in the US. MDNA55 has completed three clinical trials in 72 patients, including 66 adults with rGBM, demonstrated compelling efficacy and obtained Fast-Track and Orphan Drug status from the FDA and FDA/EMA respectively. 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 related to the ongoing Phase 2b clinical trial of MDNA55 for the treatment of rGBM (including, without limitation, patient enrolment and top line data reporting timelines) 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 (including, without limitation, the ability of the Company to fully replicate these interim data results) 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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