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Medicago and Cellectis Enter into Research Agreement to Improve Therapeutic Proteins Using Nuclease Technology

Quebec City (Quebec, Canada) and Saint Paul (Minnesota, USA), January 16, 2012 – Medicago Inc. (MDG: TSX), a biotechnology company focused on developing highly effective and competitive vaccines based on proprietary manufacturing technologies and Virus Like Particles, and Cellectis plant sciences, a subsidiary of Cellectis SA (Alternext: ALCLS), the French specialist in genome engineering, today announced the signing of a research agreement under which Medicago and Cellectis will collaborate to improve therapeutic proteins expressed from tobacco leaves.

"We look forward to working with Cellectis plant sciences to assess their nuclease technology for use in our ongoing work to develop biosimilar products," said Dr. Louis-Philippe Vezina, Chief Scientific Officer of Medicago. "This tool has the potential to hasten the expansion of our platform towards the production of a wider range of therapeutic proteins including biosimilars, and complement our existing tools for the control of protein glycosylation."

Luc Mathis, CEO of Cellectis plant sciences commented, "I am very proud to see the Cellectis technology being applied for use in plants to produce potential products for human health benefit, and expect that we will see additional opportunities for our technology in the near future."

Cellectis manufactures DNA scissors called nucleases that can cut precise DNA sequences allowing for the creation of a wide range of specific tools to modify a target gene. Cellectis' innovative nucleases have the potential to enable the modification of protein glycosylation patterns in plants with unprecedented control and uniformity, allowing for increased efficacy of therapeutic products. Using nucleases, it is possible to generate a large array of specific glycoprotein variants, and select the best candidate with the optimal glycosylation and produce it at large scale using Medicago's plant-based manufacturing technology. This approach may be applied to optimize efficacy and other protein characteristics such as solubility, therapeutic half-life, tissue distribution and interaction with complement proteins.

About Medicago

Medicago is committed to provide highly effective and competitive vaccines based on proprietary VLP and manufacturing technologies. Medicago is developing VLP vaccines to protect against pandemic and seasonal influenza, using a transient expression system which produces recombinant vaccine antigens in the cells of non-transgenic plants. This technology has potential to offer advantages of speed and cost over competitive technologies. It promises a vaccine for testing in about a month after the identification and





reception of genetic sequences from a pandemic strain. This production time frame has the potential to allow vaccination of the population before the first wave of a pandemic strikes and to supply large volumes of vaccine antigens to the world market. Additional information about Medicago is available at www.medicago.com.

About Cellectis plant sciences

Established in March 2010, Cellectis plant sciences is a subsidiary of Cellectis dedicated to the applications of meganucleases in plants. Its main mission is to increase and accelerate usage of Cellectis' proprietary technology in agricultural biology, broaden the company's platform to attract new and expanded licensing opportunities and explore the development of proprietary traits for selected applications. Cellectis plant sciences is located in Saint Paul, Minnesota, USA. Professor Daniel Voytas, Chief Scientific Officer of Cellectis plant sciences, is also Director of the University of Minnesota Center for Genome Engineering.

About Cellectis

Cellectis improves life by applying its genome engineering expertise to a broad range of applications, including agriculture, bioresearch and human therapeutics. Cellectis is listed on the NYSE-Euronext Alternext market (code: ALCLS) in Paris. For further information about Cellectis, visit our website at: www.cellectis.com. Follow Cellectis on twitter: http://twitter.com/cellectis.

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This press release and the information contained herein do not constitute an offer to sell or subscribe, or a solicitation of an offer to buy or subscribe, for shares in Cellectis in any country. This press release contains forward-looking statements that relate to the Company's objectives based on the current expectations and assumptions of the Company's management only and involve risk and uncertainties that could cause the Company to fail to achieve the objectives expressed by the forward-looking statements.

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