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Medicago vaccine to protect from all bird flu strains

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VLP vaccine shows promise in pandemic flu strains

Singapore: US-based vaccine development company Medicago demonstrated that a single, non-adjuvanted, intramuscular dose of H5N1 virus like particle (VLP) vaccine can protect against a different H5N1 strain or a strain of a different subtype such as H2N2. The firm also found that a recombinant non-VLP H5 protein failed to provide similar protection against the strains of the disease in mice.

The study was conducted under the National Institute of Allergy and Infectious Diseases' Animal Models of Infectious Disease Program. In addition, the H5N1 VLP vaccine appears to have induced mucosal immunity in the lungs and plant lipids may have intrinsic adjuvant activity. Together, these findings show that Medicago's vaccines could provide broad protection against multiple influenza strains.

"I believe this is the first demonstration that a single intramuscular, non-adjuvanted dose of an H5N1 vaccine can protect against both a separate H5N1 strain and an H2N2 strain. The cross-protection provided by the H5N1 VLP vaccine makes it an attractive vaccine candidate for protection in a pandemic influenza outbreak," said Dr Bart Tarbet, research assistant professor, Institute of Antiviral Research, Utah State University, who led the study.

"Our VLP vaccines may provide more extensive protection than any other influenza vaccine," said Dr Andy Sheldon, president and CEO, Medicago. "Cross-protection would be vital in addressing a potential pandemic as influenza strains often

mutate, rendering stockpiled vaccines ineffective. With our ability to rapidly produce a vaccine in less than a month from the identification of a flu strain, we are confident that our technology can play a key role in worldwide pandemic protection."

Medicago has successfully completed phase I and phase II human clinical trials for its H5N1 VLP vaccine made for the Indonesia H5N1 Avian Influenza strain, which demonstrated that the vaccine induced a solid immune response and was safe and well tolerated. Through additional preclinical animal studies, the company continues to further explore the mechanism of protection conferred by the H5N1 VLP vaccine.