

## **3M and VaxInnate Collaborate to Develop Flu Vaccine Patch**

3M Drug Delivery Systems has entered into an agreement with VaxInnate Corporation to develop a flu vaccine patch for use against a pandemic flu outbreak. The non-exclusive license agreement provides VaxInnate with use of patented 3M microneedle technology, called 3M Microstructured Transdermal System (MTS) technology, to deliver its M2e universal flu vaccine using a convenient skin patch instead of a traditional injection.

3M's innovative microneedle technology penetrates the skin with minimal discomfort, providing intradermal delivery for drugs, vaccines and protein therapeutics that are typically available only via injection. This application expands the range of active pharmaceutical ingredients that can be delivered via a skin patch while eliminating the need for sharps disposal.

"Our technology combines the ease, convenience and self-administration potential of a transdermal patch with the speed and efficiency of a traditional injection," said Kris Hansen, PhD, MTS Technical Manager for 3M Drug Delivery Systems. "Studies using model vaccines have validated the potential effectiveness of delivering vaccines with the solid Microstructured Transdermal System."

"The ability to deliver VaxInnate's M2e universal flu vaccine using 3M's transdermal patch could make it possible to vaccinate people rapidly for seasonal flu or in the event of a pandemic flu, when doing so is critical to stopping the spread of disease," added Alan Shaw PhD, VaxInnate CEO. "Through this collaboration, we have an opportunity to make a major contribution to global public health."

"MTS technology has the potential to improve vaccine potency, which would provide optimal vaccine efficacy and could make intradermal delivery superior for certain antigens," said Mark Tomai PhD, head of Vaccine Business Development, 3M Drug Delivery Systems. "In addition, this technology has the potential for reducing cold-chain storage, an issue with many current vaccines."

VaxInnate has reported impressive results from early human testing of its M2e universal flu vaccine candidate, which could end the need for annual flu shots and provide protection against seasonal and pandemic flu strains. The vaccine candidate will advance into further human studies in 2009.

### About 3M Drug Delivery Systems

3M Drug Delivery Systems partners with pharmaceutical and biotech companies to develop pharmaceuticals using 3M's inhalation or transdermal drug delivery technology. In addition, 3M Drug Delivery Systems offers vaccine and innovative adjuvant technology coupled with the 3M Microstructured Transdermal System to supply an integrated adjuvant/delivery system. 3M offers a full range of feasibility, development and manufacturing capabilities combined with regulatory guidance to help bring products to market. For more information, please visit [www.3M.com/dds](http://www.3M.com/dds).

### About VaxInnate

VaxInnate is a privately-held biotechnology company in Cranbury, NJ and New Haven, CT that is pioneering breakthrough technology for use in developing novel, proprietary vaccines for seasonal and pandemic influenza. This technology has the potential to dramatically improve the potency, manufacturing capacity and cost-effectiveness of influenza vaccines.

In addition to a hemagglutinin (HA)-flagellin flu vaccine candidate in clinical development at the University of

Rochester, VaxInnate is on track both to begin a Phase II study of its M2e universal influenza vaccine candidate and to advance a vaccine candidate for H5 avian influenza virus – the most likely parent of a new pandemic strain -- into clinical development in 2009.

VaxInnate's technology platform is also being investigated for development of vaccines for other diseases. For more information about VaxInnate, please visit <http://www.vaxinnate.com>.

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