

Bharat Bio, US firm in JV for bird flu vaccine

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Hyderabad: To pursue the rapid development of pandemic influenza vaccine for India and other Asean markets, city-based Bharat Biotech International has entered into a strategic alliance with Nasdaq-listed Novavax, Inc.

Under the agreement, Bharat Bio will fund all preclinical and clinical development, work with Novavax on optimal manufacturing processes and be responsible for the commercialisation of the vaccine. In return, Novavax will receive unrestricted access to all preclinical and clinical data and a royalty on all sales.

"Novavax's Virus-Like Particle Technology (VLPT) uses recombinant protein technology to imitate the structure of a virus to provide protection without the risk of infection or disease. Virion proteins can self-assemble into virus-like particles (VLPs) when over-expresses in certain cells. Novavax's proprietary VLPT produces safe and effective vaccine products through an aseptic process that reduces contamination risk and produces high, cost-effective yields," said Bharat Bio chairman and managing director Dr Krishna M Ella. He added that a key advantage of the technology is the ability to rapidly respond to emerging threats or new strains.

"There are 16 HA (haemagglutinin) and nine NA (neuraminidase) subtypes of influenza viruses which are known to infect poultry. A combination of these subtypes like H5N1 could begin infecting humans. We should be able to develop first vaccine for this subtype within 12 months. We can develop vaccine for a particular strain within 60 days," said Novavax president and CEO Rahul Singhvi. A combination of VLPT and Novasome technology could create a single dose vaccine for all influenza viruses, he added.

Bharat Bio would invest up to \$25-30 million within the next eight months. It will add its downstream processing technology to Novavax's VLPT which will enable the firm to scale up the production up to 15 million doses within a short span of time. Average price on the vaccine in the US is around \$10-12, but it will cost less in India as the Union government is likely to procure and distribute the vaccine in the country. "However, stockpiling of the vaccine is not a good idea and different strains need different types of vaccines," said Singhvi.

The Bharat Bio-Novavax alliance will be overseen by a steering committee chaired by Dr Richard Klausner, eminent scientist and former executive director of Bill and Melinda Gates Foundation. Department of Biotechnology, Government of India, will be supporting the project.