



## India opens malaria vaccine center

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PUNE, INDIA - The news last year that the world's leading experimental malaria vaccine, known as RTS,S, was showing early promise in large-scale phase 3 testing reinvigorated the scientific community in its quest to control the devastating disease, which kills more than 1.2 million people globally each year according to the latest estimates (Lancet, 379, 413-431, 2012). But, in addition to developing products such as RTS,S that protect against the clinical manifestations of malaria, researchers also hope to create vaccines that disrupt the parasite's life cycle. To that end, two Seattle-based nonprofits have partnered with India's Gennova Biopharmaceuticals to help make such a transmission-blocking vaccine a reality.

At a ribbon-cutting ceremony here at the Pune International Biotech Park on 30 January, officials from PATH's Malaria Vaccine Initiative (MVI), the Infectious Disease Research Institute (IDRI) and Gennova gathered to inaugurate a \$7.9 million facility dedicated to manufacturing vaccines. Gennova will provide the expertise to support the facility's construction and operation. The IDRI brings its pipeline of adjuvants to the table.

"I am really very excited about this partnership and the prospects of formulating vaccines in India that will be affordable," MVI's director of research and development Ashley Birkett told Nature Medicine.

The new center builds upon a collaboration launched last year between MVI, Gennova and Tulane University in New Orleans to accelerate development of a vaccine that interferes with the malaria parasite's replication. But the new center won't be limited to just one disease. "The vaccine candidates for malaria under

development at Gennova and by other partners under the MVI-PATH umbrella will get the priority, but we will also be able to work for other infectious diseases like leishmaniasis, tuberculosis and human papilloma virus," says Sanjay Singh, chief executive of Gennova.

Still, the first product to undergo testing at the new center will be a malaria vaccine that includes antigens specific to the parasite's sexual stage together with one of three adjuvants that have already been used in human trials in the US and Europe. "If any new adjuvant is found to be more promising," he says, "we will follow guidance from the Indian Department of Biotechnology and the Drugs Controller of India about how to test it in preclinical and clinical studies."

Maharaj Kishan Bhan, secretary for the Indian Department of Biotechnology, applauds the effort. "We welcome this initiative between a private company and nonprofit partners, each with its own strengths," he said.



Visiting dignitaries during the inauguration of the Gennova Vaccine Formulation Center (GVFC) at Hinjwadi



Inauguration of the GVFC facility by  
Prof. M.K. Bhan, Secretary, Dept of Biotechnology, Govt. of India



Symposia on Advances in Infectious Diseases:  
Welcome address by Mr. Satish Mehta



Keynote address by Prof. M.K.Bhan