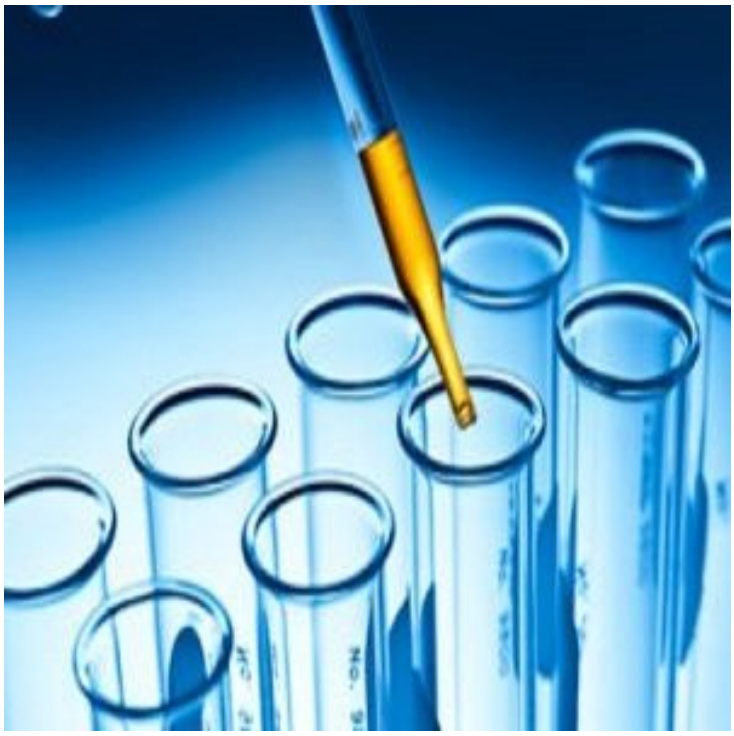
BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Researchers discover antibody to prevent dengue

December 31, 2014 | News | By BioSpectrum Bureau

Researchers discover antibody to prevent dengue



Singapore: A group of international researchers, including from University of Melbourne, have discovered a new class of antibodies that can make the four different types of dengue virus (DENV) non-infectious.

According to the University, the discovery could lead to the development of better vaccines and laboratory tests that eventually could lead to reductions in the incidence of dengue.

Published in Nature Immunology, the research outlines the first reported incidence of an antibody that can neutralise all four type of the dengue virus when it is produced from human or mosquito cells.

Co-author Professor Cameron Simmons from the Doherty Institute for Infection and Immunity said that the findings could pave the way for the development of vaccines that target all four strains of the dengue virus which is currently not available.

"There is an urgent need to reduce incidence of people suffering dengue, and understand the human immune response to infection and the response following vaccination. This unique discovery makes the future development of vaccines that could prevent the spread of the disease a realistic goal and may also pave the way for a universal DENV vaccine," he said.

Researchers analysed a large group of anti-dengue antibodies from human patients who were infected with the virus. They found a new class of antibodies that are highly effective at neutralising the virus, which bind to a newly discovered epitope, a unique structure that antibodies can recognise and bind to, that is present in all forms of the disease.