

New AIDS vaccine to undergo phase I trial

By Savita Verma
in New Delhi

PROVIDING renewed hope for an anti-AIDS vaccine, a set of two new vaccines is going to undergo human clinical trials soon at two centres in India.

Two earlier trials with different vaccines had failed. Now scientists are trying a new approach — "prime-boost regimen", in which two different vaccine candidates will be used on volunteers with the hope of generating a better response against the virus. Scientists hope the combination will be able to generate a better immune response, as these vaccines have already shown good results in trials elsewhere.

The phase one clinical trials will be conducted at the National AIDS Research Institute in Pune and Tuberculosis Research Centre (TRC) in Chennai. A total of 32 volunteers, 16 in each centre, will be administered the vaccine. Phase I trials will assess the safety of the vaccine and the protective immune response generated by it.

Two human clinical trials in India soon

"All regulatory approvals have been received. The vaccine will undergo the phase I trial soon," Dr R.S. Paranjape, director of the National AIDS Research Institute, said. The trial is being conducted as part of a memorandum of understanding between the Indian Council of Medical Research, the National AIDS Control Organisation and the International AIDS Vaccine Initiative (IAVI).

ADVAX, one of the vaccine candidates to be used in the new trial, directly uses genetic material from HIV — five HIV genes — to generate immune response against the virus. It has been designed by Aaron Diamond Research Centre in New York, through collaboration with the Rockefeller University and IAVI.

The second vaccine candidate, TBC-M4, uses a vector built from Modified Vaccinia Ankara (MVA), which is a weakened form of the vaccine use to fight small pox. This vector will be used to inject six HIV genes in the body. TBC-M4 was designed by Dr Sekhar Chakrabarty from the National Institute of Cholera and Enteric Diseases in Kolkata in collaboration with a US biotech company.

Officials said ADVAX will be used to 'prime' immune response while TBC-M4 will 'boost' the same.

The Genetic Engineering Approval Committee and the Drug Controller General of India have granted permission for the trial.