

**GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA**

UNSTARRED QUESTION NO:343
ANSWERED ON:23.07.2003
CLINICAL TRIAL OF ANTI-RETROVIRAL DRUG FOR AIDS
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Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) the details of initiatives taken by the Government under `Jai Vigyan` Programme during the last three years;
- (b) the outcome of the clinical trials of anti-retroviral drug for HIV
- (c) whether the AIDS vaccine is being developed in the country
- (d) if so, the details thereof; and
- (e) the time by which it is likely to be made available in the market?

Answer

MINISTER OF STATE FOR SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT)

- (a) : There are twenty one National Jai Vigyan Science & Technology Missions under implementation by ten science Departments. Ministry of Science & Technology has implemented nine missions in the areas of vaccines, coffee improvement, herbal products, mirror sites for genomic research, light transport aircraft, Himalayan geology, area development of Andaman & Nicobar Islands, remote medical diagnostic systems and mission for visually impaired. The Department of Biotechnology is supporting research under one of the National Jai Vigyan Science & Technology Missions on `Development of New Generation Vaccines`. The diseases covered are Cholera, Rabies, Japanese Encephalitis, Tuberculosis, Malaria and HIV/AIDS.
- (b) : Two leading Indian drug companies, namely, Cipla, Mumbai, and Ranbaxy, New Delhi with the approval of Drugs Controller General of India are manufacturing generic version of several anti-retroviral drugs i.e., Zidovudine, Lamivudine, Nevirapine, Stavudine, Didanosine, Efavirenz, Saquinavir, Indinavir, Ritonavir and Nelfinavir. At the moment, no anti-retroviral drug for HIV/AIDS is undergoing clinical trials in India.
- (c) & (d) : The National AIDS Control Organisation (NACO) and the Indian Council of Medical Research, both under the Ministry of Health and Family Welfare have entered into a tri-partite partnership with International AIDS Vaccine Initiative, USA to develop a vaccine using six genes representing relevant antigens of the Indian HIV strain. These genes have been inserted into a Modified Vaccinia-Ankara. The prototype vaccine is poised for pre-clinical toxicity studies. A proposal for HIV/AIDS vaccine development for Subtype `C` in collaboration with Emory Vaccine Centre, USA is under active consideration of the INDO-US Vaccine Action Programme of the Department of Biotechnology. Under the National Jai Vigyan Science & Technology Mission, the project towards development of candidate vaccines for HIV-I Subtype `C`, the most prevalent in the country has made significant progress. DNA and recombinant vaccine as prime boost strategy has yielded encouraging results in small experimental animals and currently they are under evaluation in the non-human primates.
- (e) : Normally, after the completion of the preclinical studies in the experimental animals, the candidate vaccines enter into human volunteer clinical trials with the mandatory regulatory approvals of the Drugs Controller General of India. On successful completion of the clinical trials, the vaccines are made available in the market. Vaccine development takes a minimum period of 6-10 years.