

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

STARRED QUESTION NO:515  
ANSWERED ON:28.08.2001  
DEMAND OF FUNDS BY D.B.T.  
IQBAL AHMED SARADGI

**Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:**

- (a) whether the Department of Biotechnology has projected a demand of Rs. 2,075 crore for the 10th Five Year Plan;
- (b) if so, the details of the total plan of Biotechnology during the 9th Five Year Plan;
- (c) whether the Department of Biotechnology has transferred 31 vital technologies to the industry for commercialisation during the 9th plan period; and
- (d) if so, the details thereof ?

**Answer**

MINISTER OF SCIENCE AND TECHNOLOGY (PROF. MURLI MANOHAR JOSHI)

(a): Yes, Sir. Realising the enormous potential of biotechnology in agriculture, healthcare, environment and industrial development, the Department of Biotechnology (DBT) has projected its requirement of plan funds during the 10th Plan period amounting to Rs.2075.00 crores.

(b): For the 9th Five Year Plan (1997-2002), an outlay of Rs.675.00 crores was approved by the Planning Commission. The broad categories of programmes and activities supported during 9th Plan include: Human Resource Development, Basic and Product Oriented R&D, Establishment of Centres of Excellence and Biotech Facilities, Biotech Product and Process Development, Bioinformatics, International Cooperation and Autonomous Research Institutions. Programmes in agriculture and plant biotechnology, medical, environment and food biotechnology were given high priority. Biotechnology based projects for societal development have also been taken up. Rice genome sequencing, genomics, medicinal plants, mission projects, bioresource development and prospecting have been some important new initiatives.

(c) & (d) : The department has transferred 31 technologies to industry developed by various institutions and universities (Annex-I). These include diagnostic kits for: HIV, Hepatitis, assessment of reproductive hormone, leprosy immunomodulator, leishmaniasis and banana bunchy top virus; drug formulation for prevention of septic shock in burn patients; biofertilisers; plant tissue culture protocols; biopesticides and bioremediation technologies.

Annex-1

LIST OF TECHNOLOGIES TRANSFERRED DURING 9TH PLAN AS REFERRED TO IN THE REPLY OF STARRED QUESTION NO. 515 TO BE ANSWERED ON 28.8.2001

Sl.No.	Technology/Technologies Developed By	Transferred To
1.	F-MOC derivatives of 12 Amino acids Centre for Biochemical Technology, New Delhi.	Atul products, Bulsar
2.	Hepatitis B detection Kit National Institute of immunology, New Delhi	Bhopal M/s. Lupin Labs Ltd.,
3.	Leprosy Immunomodulator National Institute of Immunology, Ahmedabad	Cadila Laboratories,
4.	Leishmaniasis detection kit Central Drug Research Institute, Lucknow	Span Diagnostics Ltd., surat

5. Monoclonals to M 13 phage University of Delhi, South Campus Pharmacia Inc. USA  
proteins III & IV
  
6. Liposomal Amphotericin-B Seth G.S.Medical College & Hospital, ACE Diagnostics, New  
Mumbai Delhi
  
- 7 Western Blot test for HIV-I Cancer Research Institute, Bombay M/s. J.Mithra & Co.,  
and II New Delhi
  
8. Development of a drug National Institute of Immunology, Gufic Health Care Ltd.,  
formulatuib fir orevebtuib New Delhi Mumbai  
if Septic shock in burn  
patients
  
9. Process Know-how manual for BAIF Foundation, Pune Hoechst Roussel Vet  
infections Bovine Rehino- India Ltd.(HRV)  
tracheitis (IBR) vaccine as  
developed by BAIF Foundation,  
Pune
  
10. Agglutination based University of Delhi, South Campus Cadila Pharmaceuticals  
detection of HIV-I & II Ltd., Ahmedabad  
antibodies in human blood
  
11. Plant Tissue Culture TERI, TERI, New Delhi Cadila Pharmaceuticals  
New Delhi Ltd., Ahmedabad
  
12. Plant Tissue Culture NCL, Pune Cadila Pharmaceuticals  
Ltd., Ahmedabad
  
13. Mass Production of Mycorrhiza TERI, New Delhi Cadila Pharmaceuticals  
Ltd., Ahmedabad
  
14. Lipase for food industry UDSC, New Delhi Techno Emo, New Delhi
  
15. Mass production of RRL, Jammu M/s.Prathstha Industries  
fertilizers Ltd., Secunderabad  
rhizobial M/s, Javeri Agro industries  
and Investment Co.Ltd. Amravati
  
16. Mass production of Biopesticides- RRL, Jammu M/s. Prathstha Industries  
-Trichoderma Ltd., Secunderabad.  
  
M/s. Javeri Agro indust-  
ries and Investment  
Co.Ltd. Amravati  
  
M/s. Bee Zed Biotech.,  
Gurgaon
  
17. Mass production of Biopesticides- TNAU, Coimbatore Crop Health Products  
Trichogramma, heliothis NPV Ltd., Ghaziabad

18. Mass production of Biopesticides- TNAU, Coimbatore Crop Health Products  
Trichoderma Ltd., Ghaziabad Hoechst  
AgrEvo, Bombay  
Maharashtra Cooperative  
Oil Seed Federation,  
Jalgaon
19. Mass production of Biopesticides- IARI, New Delhi Cadila Pharmaceuticals  
Asperillus niger Ltd., Ahmedabad
20. Amaranthus protein gene for NCPGR, New Delhi Cadila Pharmaceuticals  
nurtitionally enriched animal Ltd., Ahmedabad  
feed
21. The IgM Mac ELISA for the dete- National Institute of Virology, Zydus Cadila Health Care,  
ction of Dengue Pune Ahmedabad
22. The IgM Mac ELISA for the dete- National Institute of Virology, Zydus Cadila Health Care,  
ction of Japanese Encephalitis Pune Ahmedabad
23. The IgM Mac ELISA for the dete- National Institute of Virology, Zydus Cadila Health Care,  
ction of West Nile Pune Ahmedabad
24. ELISA system to measure alpha- Indian Institute of Chemical Shantha Biotechnics,  
feto protein levels in pregnant Biology Hyderabad  
women
25. An IgM based for the detection of National Institute of virology, Bharat Biotech Ltd.,  
Hepatitis A virus using monoclo- Pune Hyderabad  
nal/polyclonal antibodies
26. Urine based system (ELISA) for Institute for Research in Zydus Cadila Health Care,  
detection of Four Reproductive Reproduction, Mumbai Ahmedabad  
Harmones Mumbai
27. Western Blot for detection of Cancer Research Institute, J Mitra & Co., New Delhi  
HIV 1&2 Mumbai
28. Agglutination test for HIV-1&2 University of Delhi South Campus Cadila Pharmaceuticals  
using reocmbinant reagents Ltd., Ahmedabad
29. A technology utilising Yarrowia University of Baroda, Baroda Biological Evans Ltd.,  
lipolytica expressing Hepatitis Hyderabad  
B surface and pre S genes (yield-  
ing high level of proteins/single  
step purificaiton).
30. A technology for expressing hCG Indian Institute of Sciences, Cadila Pharmaceuticals  
using Pichia patrois system Bangalore Ltd., Ahmedabad

31. OIL ZAPPER Technology for Oil  
Spill Treatments           Hyderabad  
                                  BPCL, Mumbai

TERI, New Delhi

Sriram Biotech Ltd.,