



Department of Biotechnology  
Govt. of India

## Department of Biotechnology

The Department of Biotechnology (DBT) is an Indian government department, under the Ministry of Science and Technology responsible for administering development and commercialization in the field of modern biology and biotechnology in India. It was set up in 1986.



सत्यमेव जयते

*The setting up of a separate Department of Biotechnology (DBT), under the Ministry of Science and Technology in 1986 gave a new impetus to the development of the field of modern biology and biotechnology in India. In more than a decade of its existence, the department has promoted and accelerated the pace of development of biotechnology in the country. Through several R&D projects, demonstrations and creation of infrastructural facilities a clear visible impact of this field has been seen. The department has made significant achievements in the growth and application of biotechnology in the broad areas of agriculture, health care, animal sciences, environment, and industry.*

The impact of the biotechnology related developments in agriculture, health care, environment and industry, has already been visible and the efforts are now culminating into products and processes. More than 5000 research publications, 4000 post-doctoral students, several technologies transferred to industries and patents filed including US patents, can be considered as a modest beginning. Department of Biotechnology (DBT) has been interacting with more than 5,000 scientists per year in order to utilise the existing expertise of the universities and other national laboratories. A very strong peer reviewing and monitoring mecha-

nism has been developed. There has been close interaction with the State Governments particularly through State S & T Councils for developing biotechnology application projects, demonstration of proven technologies, and training of human resource in States and Union Territories. Programmes with the states of Gujarat, Rajasthan, Madhya Pradesh, Orissa, West Bengal, Haryana, Punjab, Jammu & Kashmir, Mizoram, Andhra Pradesh and Uttar Pradesh have been evolved. Biotechnology Application Centres in Madhya Pradesh and West Bengal have already been started.

A unique feature of the department has been the deep involvement of the scientific community of the country through a number of technical task forces, advisory committees and individual experts in identification, formulation, implementation and monitoring of various programmes and activities.

Necessary guidelines for transgenic plants, recombinant vaccines and drugs have also been evolved. A strong base of indigenous capabilities has been created. The field of biotechnology both for new innovations and applications would form a major research and commercial endeavor for socio-economic development in the next millennium.

The DBT has set up task forces and expert committees with the involvement of eminent and active scientists from all over the country to advise on the identification of thrust areas in Biotechnology for financial support. As a result biotechnology has received a significant fill-up in the country with adequate support from the Govt. of India.

Fifteen Task forces and various expert/steering committees of the department met two or four times during the year to review and monitor the on going projects and also consider new proposals in the priority areas.

## List of DBT task forces and committees :

Bioinformatics.

Stem Cell Biology.

Seri Biotechnology.

Corp Biotechnology.

Plant Biotechnology.

Animal Biotechnology.

Infectious Disease Biology.

Food and Nutrition Security.

Medicinal and Aromatic Plants.

Human Resource Development.

Biological Agents for Agriculture.

Basic Research in Modern Biology.

Infrastructure & Centers of Excellence.

Biotechnology Programme for Women.

Human Genetics and Genome Analysis.

Aquaculture and Marine Biotechnology.

Chronic Disease Biology: Neurosciences.

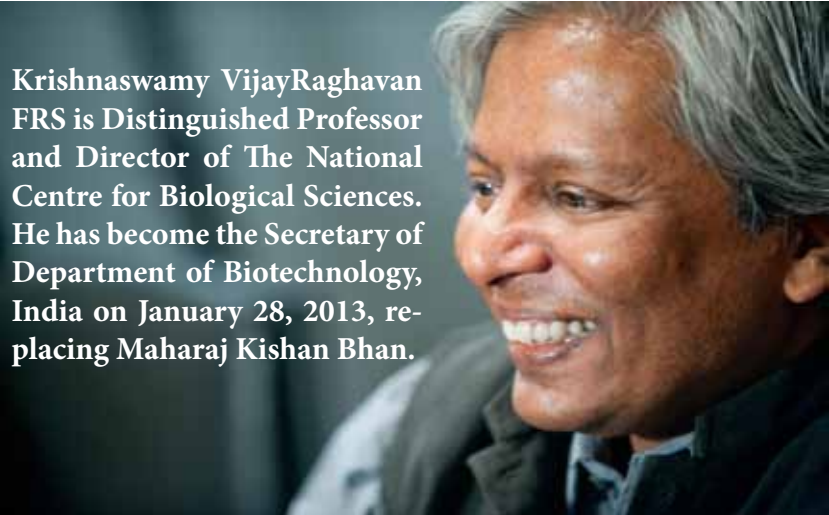
Biotech Product and Process Development.

Biotechnology Programme Promotion Committee (BPPC).

Biotechnology Programmes for SC/ST & Rural population.

Inter-disciplinary Research Committee (IDRC) in Biotechnology.

Environmental Biotechnology & Biodiversity Conservation Bioengineering.



Krishnaswamy VijayRaghavan FRS is Distinguished Professor and Director of The National Centre for Biological Sciences. He has become the Secretary of Department of Biotechnology, India on January 28, 2013, replacing Maharaj Kishan Bhan.

## DBT Autonomous Institutes :

Institute of Immunology Delhi

National Centre for Cell Science, Pune

Institute of Life Sciences, Bhubaneswar

National Brain Research Centre, Manesar

Institute of Plant Genome Research Delhi

National Agri-Food Biotechnology Institute, Mohali

National Institute of Animal Biotechnology, Hyderabad

Centre for DNA Fingerprinting & Diagnostics, Hyderabad

Institute of Bioresources and Sustainable Development Imphal

Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram

In India, more than a decade of concerted effort in research and development in identified areas of modern biology and biotechnology have given rich dividends. The proven technologies at the laboratory level have been scaled up and demonstrated in field. Patenting of innovations, technology transfer to industries and close interaction with them have given a new direction to biotechnology research. Initiatives have been taken to promote transgenic research in plants with emphasis on pest and disease resistance, nutritional quality, silk-worm genome analysis, molecular biology of human genetic disorders, brain research, plant genome research, development, validation and commercialisation of diagnostic kits and vaccines for communicable diseases, food biotechnology, biodiversity conservation and bioprospecting, setting up of micropropagation parks and biotechnology based development for SC/ST, rural areas, women and for different States.

## DBT Public Sector Undertakings

Bharat Immunologicals and Biologicals Corporation Limited, Bulandshahar  
Indian Vaccine Corporation Limited Delhi  
Biotech Consortium India Limited, New Delhi

## Human Resource Development

### Details of ongoing teaching programmes:

- 35 M.Sc courses in general biotechnology
- 13 M.Sc courses in agriculture biotechnology
- 3 M.Sc (3/2 years) courses in neurosciences
- 2 M.Sc courses in marine biotechnology
- 2 M.V.Sc courses in animal biotechnology
- 2 Masters in molecular and human genetics
- 1 M.Sc course in medical biotechnology
- 1 M.Sc course in environmental biotechnology
- 1 M.Sc course in industrial biotechnology
- 1 M.Tech in pharmaceutical biotechnology
- 1 M.Tech. Marine Biotechnology
- 1 M.Sc. Plant Biotechnology
- 6 M.Tech courses in biochemical engineering, bio process technology and biotechnology



### PG diplomas (Post M.Sc. /M.D./MS/ M.Tech)

- 2 IPR Diploma
- 1 Medical biotechnology
- 1 Genetic Engineering and Bioprocess Development
- 1 Animal Biotechnology

### Biotech industrial training programme

To reduce the mismatch between requirement of industry and students produced by university, the Department of Biotechnology is facilitating industrial training for six months to postgraduate students in leading biotech industries. The Department is providing stipend to all the selected students and to attract more industries to offer this training, training fee of Rs. 50,000/- per student has been introduced from 2007-08. The number of applicants as well as candidates selected for training and the companies offering training under this programme has increased exponentially during the last 2 years. Approximately, 30% of students thus trained find permanent placement in the industry. The programme is being implemented through Biotech Consortium India Limited.

## Fellowships

### DBT Junior Research Fellowship (DBT- JRF) programme

DBT JRF programme has been started from the year 2004. 250 JRFs are selected through Biotechnology Eligibility Test (BET) conducted by University of Pune, Pune and fellowships are provided for an initial period of 3 years which could be extended upto five years. Contingency grant of Rs.30,000/- per fellow per annum is also provided. Top ranking 100 students in merit are given option to join any institute of their choice in the country for pursuing Ph.D. Option is given to next 100 candidates in merit list to join DBT supported PG teaching universities ( a maximum of two students per institute).

### DBT Postdoctoral Fellowship (DBT- PDF) programme

The department initiated a programme for providing 100 PDF per year in 2001. Fellowship of Rs. 11,000 per month in the first year and Rs. 11,500 per month from 2nd year and contingency grant of Rs. 50,000 per PDF per annum is provided. This fellowship can be extended upto 5 years on merit/ progress on NIH pattern. Selection of PDFs is done by Indian Institute of Science, Bangalore.