

BIO Technology Policy:

DEPARTMENT OF SCIENCE & TECHNOLOGY

CHANDIGARH ADMINISTRATION

INTRODUCTION:

Biotechnology is defined as the controlled use of biological agents, i.e. micro organisms or cellular components, for the benefit of humanity. It is a multi disciplinary field of activities which relies on the integration of all life sciences and several physical sciences including Biology, Biochemistry, Microbiology, Molecular Biology, Nanotechnology, Bio-informatics, Chemical Engineering and Process Engineering, in a manner that optimizes the exploitation of their potential.

BIOTECHNOLOGY VISION

The vision of the Chandigarh Administration is to give an impetus to the economy and human resources of the Union Territory of Chandigarh by realizing the potential of Biotechnology. The goal is to spread awareness among the public about the benefits of Biotechnology to create a large pool of personnel with skills in different aspects of Biotechnology, and to develop processes, designs, compounds, equipments and solutions which have applications in the field of Agriculture, Industry, Food & Nutrition, Medicine, Pharmaceuticals, Health Services and Environmental sciences.

BIOTECHNOLOGY MISSION:

Chandigarh Administration shall work towards achieving the following goals within a definite time frame:

- To make Chandigarh a preferred Biotechnology destination.
- To promote the Biotechnology industry in Chandigarh and in the region.

- To provide facilities to Biotech, Companies by the development of Biotech Laboratories.
- To enhance the growth of the biotechnology sector by utilizing the services of Biotech professionals.
- To create employment for trained Biotech professionals and other qualified personnel in Chandigarh and the region.
- To invite technology leaders worldwide to avail of Chandigarh's Biotech facilities.
- To actively facilitate networking amongst Biotech organizations and universities and colleges offering Biotechnology, Bio-physics, Bio-Chemistry, Nanotechnology and Bio Informatics.
- To encourage education and training of skilled professionals in biotechnology and related fields.
- To facilitate investment in biotechnology, health services, pharmaceutical research, medical education and related sectors by providing the required infrastructure and policy framework.

CHANDIGARH AN IDEAL BIOTECHNOLOGY DESTINATION

Chandigarh has many advantages for the growth of the Biotech Industry. The following features make Chandigarh an ideal Biotech destination:

- **Urban Environment**: The city provides a pollution free environment where the quality of life is of a very high order.
- **A Planned City**: Chandigarh is one of the successes of modern architectural planning and its planned infrastructure provides an ideal vehicle for the growth of the B.T. industry.
- **Geographical Advantages**: The city is very close to the National Capital and is well connected with rest of the country by road, rail and air.

- **Institutions of Excellence** :
 1. Human resources with practical experience in the field of BT are readily available in the many teaching and research institutions situated in Chandigarh. Highest rank in HDI in India.
 2. The educational environment of the city is highly conducive for the development of Biotechnology.
 3. Scientists / Biotechnologists at Nationally renowned institutions like Institute of Microbial Technology, National Institute of Pharmaceuticals Education and Research, Post Graduate Institute of Medical Education and Research, Central Scientific Instrumentation Organization, Punjab University, Govt. Medical College & Hospital provide a valuable resource pool for B.T. companies. Lab facilities, research, networking.
- **Botanical Garden**: A large reservoir of plant species is being created at the new Chandigarh Botanical garden spread over 117 acres. This will include medicinal plants, a large sample of indigenous plant species and selected exotic plants.
- **Business Parks**: The Chandigarh Technology Park has been set up near the picturesque Sukhna Lake. The Chandigarh Science Park will be developed adjacent to the Botanical Garden. A Logistics and Assembly Park is planned near the Railway Station and National Highway-21.
- **Administration**: Chandigarh is a Union Territory headed by an Administrator, who is aided by the Adviser to the Administrator and Administrative Secretaries. An effective, efficient, transparent and easily accessible Administration which is known for quick decisions and effective implementation of policies, shall work towards realizing the objectives of this Biotechnology Policy.

The above factors combine to make Chandigarh a preferred destination for biotechnology in India.

BIOTECHNOLOGY ACTION PLAN

Chandigarh Administration shall launch a major, well directed programme in the field of biotechnology, research, harnessing biotechnological tools for economic development, scientific and technological empowerment of human resources. This shall include the following:

- **Biotechnology Incubator Facility**: The creation of such a facility with participation from industry would help in setting up a platform for testing of products and assessment in terms of their economic feasibility.
- **State of the Art Research**: To provide a P-3 Research facility to enable industry to work with highly pathogenic microbes in a safe environment. Such a facility would be set up in collaboration with industry and would be part of the Biotech Incubator.
- **Bio-informatics Facilities**: To establish common testing facilities which are not available in the region for applied Biotech research, in collaboration with Industry and to establish cells for research and exchange of information using computer software in collaboration with leading Institutions of Chandigarh.
- **Consultancy Services Cell**: A cell with complete worldwide information on latest Biotechnology trends in consultation with Scientists with expertise in the relevant technologies and their application.
- **Propagation**: Various agencies including the departments of Health Medical Education, Technical Education and Education and Agriculture shall be involved in informing people about the latest developments in Biotechnology.
- **Identifying Business Potential**: The Administration, in collaboration with national Institutes would identify product oriented projects.
- **Plant Breeding**: The use of molecular genetic engineering methods to select desired genotypes from amongst the gene combinations in plant

population in order to improve the quality of agricultural products would be encouraged.

- **Cloning**: Research on latest trends in cloning would be encouraged. Agro-Industrial Development: Production of fermented foods and drinks, microbiologically processed foods, pharmaceuticals, organic acids, amino acids, synthetic fuels and organic solvents would be encouraged.
- **Plant Breeding**: Research would be encouraged for the development of new varieties of disease resistant trees / plants, to increase urban and forest plantation. A Hi-tech nursery would be created.
- **Facilitation Committee**: A committee of officials has been set up to expedite all clearances required by Biotech researchers, entrepreneurs and firms, and to provide information to the public regarding Biotech Policies of the Administration.
- **Experts Committee**: A committee of experts in various fields has been set up to guide the Chandigarh Administration in the implementation and evolution of its biotechnology initiatives.

BIOTECHNOLOGY FACILITATION COMMITTEE

The Facilitation Committee consists of the following officials:

1.	Secretary Medical Education, Chandigarh Administration	Chairperson
2.	Secretary Health, Chandigarh Administration	Member
3.	Secretary Science & Technology, Chandigarh Administration	Member
4.	Secretary Industries, Chandigarh Administration	Member
5.	Director Medical Education, Chandigarh Administration	Member
6.	Director Environment, Chandigarh Administration	Member

The committee shall be responsible for the following functions:

- Coordinating between various agencies of the Chandigarh Administration for implementing biotechnology policy.
- Drawing up a detailed agenda and plan of action for implementing the various aspects of the biotechnology policy in a time-bound manner.
- Interacting with organizations and experts outside Chandigarh with a view to promoting the biotechnology policy and enhancing the value of Chandigarh as a biotechnology destination.
- Facilitating biotechnology ventures of all kinds in Chandigarh including research projects, educational and training projects, production and marketing projects etc.

Entrepreneurs and researchers in Biotechnology may contact the convener of the Facilitation Committee the Director Science and Technology, Chandigarh Administration for further information regarding Chandigarh and its biotechnology initiatives at following address.

**Director Science and Technology,
5th Floor, Additional Deluxe Building,**

Sector-9-D, Chandigarh.

E-mail: dit@chd.nic.in