

FAQ'S

Sectoral

Biotechnology

1. Does BIRAC offer any capacity building support for researchers, innovators, entrepreneurs?

Yes, BIRAC conducts roadshows and Intellectual Property workshops to sensitize the target audiences about the BIRAC support for the entrepreneurs and relevance of intellectual property. It also provides a platform for the aspiring entrepreneurs to gain knowledge about effective grant writing skills from the experts in the domain.

2. Does the Department offer any support to researchers in this sector? If yes, then at which stage of the research are they supported in?

Yes, the Department does offer support to researchers across all the stages of R&D - Ideation/ very early stage (SITARE, E-yuva), ideation to early stage (Biotechnology Ignition Grant Scheme (BIG)), ideation to late stage (Small Business Innovation Research Initiative (SBIRI)), (Biotechnology Industry Partnership Programme (BIPP)), translation (Promoting Academic Research Conversion to Enterprise (PACE)) and for social innovation (Social Innovation programme for Products: Affordable & Relevant to Societal Health) etc. This support is usually through awards, grants for research, provision of enabling platform for different stakeholders to collaborate and innovate. Usually, a researcher submits his/her proposal to Biotechnology Industry Assistance Council (BIRAC) based on which the support is provided.

3. What is the Patent Assistance Funding Scheme?

BIRAC has started to provide assistance for Intellectual Property protection via 'Patent Assistance Funding Scheme'. To implement the scheme, it has empanelled technically competent, experienced and financially sound IP & Technology Transfer (TT) firms who could provide assistance for patent search, filing, drafting and Commercialization of such technologies if required. Under this, it has also initiated technology mapping of DBT institutes and formulation of patent policies of universities & organizations. Under this scheme, it offers a wide range of IP and Technology Management services to SME's, Start ups, Academia and also to Indian Biotech Industry such as patent searches, patent

drafting, filing and prosecution, patent analytics, technology management offerings etc.

4. Does BIRAC also support in any exchange programs of researchers with other countries?

Yes, BIRAC and Centre of Entrepreneurial Learning (CEL) of Judge Business School, University of Cambridge have initiated a partnership that enables five BIRAC supported applicants to take part in CfEL's flagship intensive entrepreneurial boot-camp programme called "IGNITE", which is aimed at providing academics (PhDs, post-docs and scientists) entrepreneurial opportunities to explore their innovative ideas and transform them into a business project. CfEL provides one week intense mentorship and training to the BIRAC supported candidates and for second week encourage them to interact and learn from the Cambridge's entrepreneurial cluster.

5. What is Grand Challenges India (GCI)?

Grand Challenges is a family of initiatives fostering innovation to solve key global health and development. In 2012, the Bill & Melinda Gates Foundation (BMGF) and the Department of Biotechnology (DBT) signed an umbrella Memorandum of Understanding (MOU) to collaborate on mission-directed research and build Grand Challenges India to support health research and innovation which is the GCI. Under the GCI, proposals are called under various relevant topics on innovative solutions to help expand the pipeline of ideas to develop new preventions, therapies and interventions in this sector.

6. Does BIRAC offer any support to start-ups?

The Bioincubators Nurturing Entrepreneurship for Scaling Technologies (BioNest) allows harnessing of the entrepreneurial potential of start-ups by providing access to infrastructure as well as mentoring and networking platforms that the start-ups could use during their fledgling days. So far BIRAC has supported twenty bioincubation centers across India on similar lines. For relevant guidelines, access the link.

7. What is the Biotechnology Industry Research Assistance Council (BIRAC) Incubators SEED Fund?

Under Incubator SEED Fund, BIRAC will provide Grant-in-aid Assistance to selected BIRAC funded

incubators based on certain establishment and operational criteria. Initially BIRAC shall identify up to five incubators and expand further in due course. Each such selected incubator will be granted up to \$ 300,000 for implementation of SEED Fund. Each incubator can design a selection process to screen & select startups for equity and operational funding through SEED Fund (e.g Accelerator program or Direct investment).

8. What is the Biosafety Research Programme?

Under Biosafety research programme, main emphasis is given to facilitate the implementation of biosafety procedures, rules and guidelines under Environment (Protection) Act 1986 and Rules 1989 to ensure safety from the use of Genetically Modified Organisms (GMOs) and products thereof in research and application to the users as well as to the environment.

9. Are there any schemes to support R&D in the biotechnology sector?

The Department of Biotechnology as well as the Biotechnology Industry Research Assistance Council has various schemes to support R&D through centres of excellence, industry partnerships and grants. These schemes are as follows: a) Centres Of Excellence and Innovation in Biotechnology. b) Research Resources, Service Facilities and Platforms. c) Societal Development. d) Biotech Parks and Incubators. e) Rapid Grant for Young Investigators. f) Glue Grant. g) Special Programmes-North-East region. h) Women Scientist Scheme. For more details, you can access the following link.

10. What is the National Biopharma Mission?

The NBM is an industry-academia collaborative mission for accelerating discovery research to early development for biopharmaceuticals innovate in India (I3). The aim of the mission is to enable and nurture an ecosystem for preparing India's technological and product development capabilities in biopharmaceutical to a level that will be globally competitive over the next decade, and transform the health standards of India's population through affordable product development. The department aims to achieve this through development of centres of excellence, strengthening of bio-clusters, creating shared infrastructure for product development, knowledge sharing etc. To submit one's proposal under the NBM, access the following link with relevant details.

11. What are the benefits of Biotechnology?

This technology helps plants for pest resistance, helps plants to tolerate the stressful conditions like

low temperature, drought, salt in soil, etc., helps to generate vaccines for the animals to fight against diseases, it is also used to produce pharmaceuticals etc.

12. What is the mandate of Department of Biotechnology?

The mandate is as follows: 1) Promote large scale use of Biotechnology. 2) Support R&D and manufacturing in Biology. 3) Responsibility for Autonomous Institutions. 4) Promote University and Industry Interaction. 5) Identify and Set up Centres of Excellence for R&D. 6) Integrated Programme for Human Resource Development. 7) Serve as Nodal Point for specific International Collaborations. 8) Establishment of Infrastructure Facilities to support R&D and production. 9) Evolve Bio Safety Guidelines, manufacture and application of cell based vaccines. 10) Serve as nodal point for the collection and dissemination of information relating to biotechnology.

13. Are BIOTECH projects approved by the Govt. of India ?

The portable plants, RCC digesters and waste to electricity plants which are designed and developed by BIOTECH have been approved by Ministry of New and Renewable Energy (MNRE), Government of India. So these types of plants installed in India are eligible for the subsidy from MNRE.

14. What is agricultural biotechnology?

Agricultural biotechnology is an advanced technology that allows plant breeders to make precise genetic changes to impart beneficial traits to the crop plants we rely on for food and fiber. For centuries farmers and plant breeders have labored to improve crop plants. Traditional breeding methods include selecting and sowing the seeds from the strongest, most desirable plants to produce the next generation of crops. By selecting and breeding plants with characteristics such as higher yield, resistance to pests and hardiness, early farmers dramatically changed the genetic make-up of crop plants long before the science of genetics was understood. As a result, most of today's crop plants bear little resemblance to their wild ancestors. The tools of modern biotechnology allow plant breeders to select genes that produce beneficial traits and move them from one organism to another. This process is far more precise and selective than crossbreeding, which involves the transfer of tens of thousands of genes, and provided plant developers with a more detailed knowledge of the changes being made.

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