

Ignite • Innovate • Incubate

biroac i3

Emerging Healthcare Innovations:
A significant step towards
AtmaNirbharBharat



birac

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Dr Rajesh S Gokhale

Secretary DBT &
Chairperson BIRAC

From the Leaders Desk

The Indian Biotechnology sector has entered into a new phase of growth, where the world now acknowledges the tremendous potential, this sector holds to touch and transform lives. The country is gearing towards becoming a world recognized Innovation Hub and Biomanufacturing Hub, with notable contributions from individual states.

Over the past decade, India has indeed made significant strides in improving the health of its population, with notable achievements in areas such as maternal and child health, infectious diseases control, and life expectancy. Indian healthcare startups have demonstrated remarkable achievements in 2023, leveraging cutting-edge technologies and creative solutions to address the diverse needs of

the population. From telemedicine advancements to mental health solutions, these startups have played a pivotal role in enhancing the accessibility and affordability of healthcare services.

Indian healthcare startups have not only proven to be resilient and adaptable but they have also paved the way for transformative changes in the industry. With a keen eye on technology, mental health, personalized solutions, and emerging areas like gut health, these startups are poised to make groundbreaking advancements in the Indian healthcare landscape. Several notable advancements in healthcare have emanated from the Department of Biotechnology (DBT), Biotechnology Industry Research Assistance Council (BIRAC) and its affiliated institutions to the diverse need of the society.

The past year marked a wave of innovation with the introduction of nearly 50 cutting-edge products in the expansive life sciences and healthcare domain. The BioMedical sector is poised for consistent growth, with the potential to increase from \$57.3 billion in 2022 to an estimated \$128 billion by 2030. This trend underscores the sector's resilience and evolving market demand for medical innovations and healthcare solutions.

India's biotechnology sector witnessed a remarkable surge in recent years, with several companies achieving unicorn status – a valuation of over \$1 billion. These biotech unicorns drove innovation and transformed the healthcare landscape, shaping the future of medicine and improving the lives of millions worldwide.

The affordable HealthTech solutions could potentially address the unmet needs of about 65% of population which is deprived of adequate primary health care and for making a quality primary health care system operational much focus and efforts are required in promoting the adoption of affordable and easy to use tech driven innovations having applicability at rural settings.

The dynamic growth in the biotechnology sector positions it as a key player in India's economic landscape and while looking forward, the future outlook is shaped by key drivers, including global acceptance of biosimilars, ongoing innovation in therapeutics and sustainable practices in BioIndustrial.

The department aims to promote technical excellence, foster equity, and social responsibility in how the fruits of biotech research are deployed to make biotech sector an inclusive enterprise with the focus on Atmanirbhar Bharat.



Dr. Jitendra Kumar
Managing Director- BIRAC

Chief Editor's Take

Biotechnology serves mankind in helping to move towards a biotechnology-led economy, transforming as many lives as possible, creating opportunities and promising development for all. Biotechnology has the biggest impact in places you never notice from the time we start our day to the time we end; we are surrounded by innovations that makes our lives easier. These innovations not only save lives, but also provide enormous value to society over time and substantial savings in other healthcare spending.

India is undergoing a revolution in the area of innovation, whether it is in the areas of science, technology or others. The country has witnessed a 100-fold increase in number of biotech startups in less than 9 years. From 50 startups in 2014 to 6000+ startups in 2022. Biotech Startups are the backbone of New India.

BIRAC is working towards nurturing and empowering the startup community in India through its various innovative funding schemes, that will align with the national goals of Startup India, Make in India, Vocal for Local products and Atmanirbhar Bharat. The emphasis of these initiatives launched by the government is on creating a conducive environment for home-grown innovation and entrepreneurship to solve some of the biggest challenges that India faces.

The healthcare sector is always looking to innovate and develop. It is driven by the need for better outcomes, improved quality, increased accessibility, and lower costs. The focus is shifting towards using technology to support prevention and primary care rather than relying solely on technology for highly specialized treatment. BIRAC supported startups have come a long way in nurturing the innovation ecosystem from remote monitoring devices to low-cost devices. BIRAC has supported innovations and technologies across the country in various fields such as Healthtech, Agritech, Industrial Technology, Information Technology, Mobility, Edutech, Space, Defence, Clean Environment and others.; BIRAC has played a critical role in easing out the path for both startups and big companies.

BIRAC has been constantly striving to bring about transformative change through supporting and sustaining cutting-edge technologies to ensure the vision of Atma Nirbhar Bharat.

The launch of first Indigenously Developed Magnetic Resonance Imaging (MRI) Scanner

The Department of Biotechnology (DBT) had launched the India's first indigenously MRI Scanner. The scanner has been developed by Voxelgrids Innovations Pvt Ltd and was supported by the Department of Biotechnology (DBT) through its National Biopharma Mission, implemented by the Biotechnology Industry Research Assistance Council (BIRAC).



Launch of first Indigenously Developed Magnetic Resonance Imaging (MRI) Scanner by Dr. Jitendra Singh

This is India's first indigenously developed light weight, helium free, commercial, high field MRI Scanner. This product is expected to be an extremely cost-effective and affordable scanner. In June 2023, The MRI Scanner has received manufacturing and commercialization license from CDSCO, Govt of India.



Launch of first Indigenously Developed Magnetic Resonance Imaging (MRI) Scanner by Dr. Jitendra Singh

National Biopharma Mission and BIRAC has been providing support for various innovations in the country and is actively working towards building a supportive enabling environment for greater science and research opportunities in the Devices & Diagnostics ecosystem. The Department has made concerted efforts through adoption of strategies focusing on fostering active partnerships with relevant global leaders and implementation of innovative funding mechanisms. With a view to reduce import dependency, improve affordability and increase the innovation quotient, the Mission is supporting development of medical products in different need sectors. The priority is on the products that are not currently manufactured in India in order to maximize the potential for meeting unmet medical and patient care needs while enhancing maximum potential for market share for its licensees and product development partners.

BIRAC sensitization workshop on Bio-Entrepreneurship and Intellectual Property & Technology Management in Life Sciences

A one-day workshop on “Bio-Entrepreneurship and Intellectual Property & Technology Management in Life Sciences” was organized by BIRAC & Vikram University, Madhya Pradesh at Ujjain on 28th July, 2023. Hon'ble Minister of Higher Education, Govt. of Madhya Pradesh, Dr Mohan Yadav graced the event.



Glimpses of BIRAC sensitization workshop on Bio-Entrepreneurship and Intellectual Property

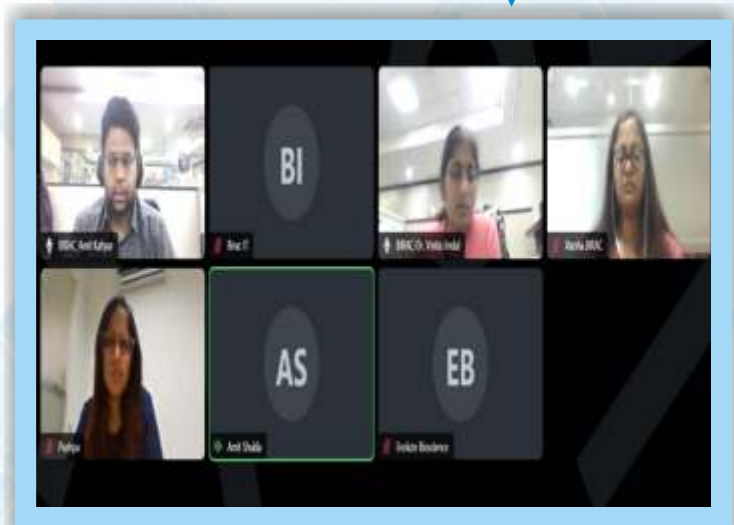
An overwhelming and enthusiastic response was received from the participants. This workshop was designed for the researchers, students & start-ups to make them aware of the various aspects of Grant Writing, Funding programs of BIRAC's and IP & Technology Management. 85+ Researchers & students were benefitted from this workshop. The workshop was appreciated by all the attendees.

BIRAC IP & Technology Management Law Clinic Connect

BIRAC IP& Technology Management unit has conducted 14th session of IP & Technology Management Law Clinic Connect program on 14th July 2023 via video-conferencing. Experts assisted 6 Start-ups & entrepreneurs in Intellectual property & Technology Transfer related matters. The program was appreciated by all the 6 beneficiaries.



Glimpses of BIRAC IP & Technology Management Law Clinic Connect





The Venture Design Workshop for the Sparsh Innovators was organized at AIC-CCMB in collaboration with TISS

A three-day workshop on Venture Design was organized by the Biotechnology Industry Research Assistance Council (BIRAC) from 22nd to 24th August 2023 at Sparsh Centre, Atal Incubation Centre – Centre for Cellular and Molecular Biology (AIC-CCMB) in collaboration with Sparsh Knowledge Partner, Tata Institute of Social Sciences (TISS).

BIRAC under the Department of Biotechnology (DBT) aims to cultivate about 60-70 social entrepreneurs during each of its cohorts under the 'Sparsh' programme to develop affordable biotechnological interventions to address critical societal challenges.

The workshop was aimed at mentoring and evaluating fellows under Sparsh, which aims to encourage aspiring entrepreneurs to develop affordable biotechnological interventions to address critical societal challenges. The Sparsh program focuses on addressing challenges in various areas such as Maternal and Child Health, Aging and Health, Food and Nutrition, Waste to Value, Agri-tech, and Combating Environmental Pollution.

The Sparsh programme provides fellowship, which spans 18 months and includes a kick-start grant of ₹5 lakhs, enabling chosen fellows to demonstrate the viability of their ideas and guide them toward building entrepreneurship in the social innovation space through biotechnology-based interventions.

BIRAC has successfully merged the fields of biology and social entrepreneurship by providing a supportive ecosystem for innovators who want to explore entrepreneurship as a career. Such initiatives positively contribute to the growth of the biotechnology sector in India and encourage the translation of scientific research into practical applications that benefit society and the economy.

BIRAC Big 22nd Call Awardees

Final results for the BIG 22 Call were announced on August 4, 2023. 60 innovative ideas have been shortlisted for financial support of up to INR 50 lakhs for a period of 18 months out of a total of 988 applications received under BIG 22 Call.



BIG 22nd CALL AWARDEES

UPTO INR 50 LAKHS GRANT-IN-AID FOR 18 MONTHS

AGRICULTURE AND ALLIED AREAS

Waseem Hanif, Madhusudan H, Aravind Reddy, Aarav Commodore Pvt. Ltd., Rakey Khan, Rajesh Patkar, FINESTAG, FINESTAG Pvt. Ltd., Rajesh Jain, Adityan Verma, Rishabh Pvt. Ltd., Madhav Akhrotkar, Adityan Chakrabarti, GRACE Biotech Pvt. Ltd., Preetam Bioelectronics Pvt. Ltd., Jitendra Singh

DIAGNOSTICS

Anil Thakur, ROHA, Roha Precision Systems Development LLP, Piyanka Mehra, Piyanka Mehra Private Limited, Piyanka Mehra Private Limited, Piyanka Mehra Private Limited, Dr. Vinay Patel, Saravada Biotech Pvt. Ltd., Vinayada Sharma, Cytos Bioscience, Shankar Kumar Reddy

DRUG AND RELATED AREAS

Chiruta Purvoti, ASPIEL, Anjali Syngene Pvt. Ltd., Manvika Das, Jeevitha George, Shree V. Singh, Madhavi Pvt. Ltd., Madhu Raju Sivakumar, Hologram Pvt. Ltd., Divyanshu Jais, Pragnya Singh Roy

MEDICAL DEVICES

Ahmad Sheikh, Ecolab Dynamics Pvt. Ltd., Gyanesh Pvt. Ltd., Infiniti Technology Pvt. Ltd., Ananya Meera Tech Pvt. Ltd., Bilal Technology Pvt. Ltd., Pradeep Dhruva, Ishwari Mishra, Sakshi Prasad S, Dr. Ananya Meera, Ananya Meera, IRI Hassan Akhtar, T.A. Desai

INDUSTRIAL BIOTECHNOLOGY, CLEAN ENERGY & ENVIRONMENT

Kirti Bhatnagar, Genetix, Corone Pvt. Ltd., Sakarajivani Chandrasekhar, Jyoti Seth, Mini Mines CleanTech Solutions Pvt. Ltd., Gayatri Ghosh Technologies Pvt. Ltd., Green Energy Mission, Quantum Technologies Pvt. Ltd., Element Research Pvt. Ltd., Nandini Khan, AnalyticalPlus Pvt. Ltd., Debarajya Das

visit our website: www.birac.nic.in

011-26101313 | 011-26101314 | 011-26101315

Independence Day 2023

Biotechnology Industry Research Assistance council (BIRAC) celebrated India's Independence Day on 15th August 2023 with great enthusiasm and patriotic fervour.

To commensurate the eve, few competitions like slogan writing, essay writing & poster making were organized. All employees participated with great enthusiasm in this event.



हिंदी परववाड़ा 2023

हिंदी दिवस 14 सितंबर को बड़े गर्व और हर्षोल्लास के साथ मनाया जाता है क्योंकि 14 सितंबर, 1949 को हिंदी को हमारे देश की राजभाषा के रूप में अपनाया गया था।

इस वर्ष बाइरैक ने 15 सितंबर 2023 से 29 सितंबर, 2023 तक हिंदी पखवाड़ा मनाया। हिंदी माह के दौरान राजभाषा हिंदी के प्रयोग को बढ़ावा देने के लिए निम्नलिखित प्रतियोगिताओं / गतिविधियों का ऑनलाइन आयोजन किया गया

1. हिंदी निबंध प्रतियोगिता
2. ऑनलाइन नारा लेखन प्रतियोगिता
3. ऑनलाइन कविता लेखन प्रतियोगिता
4. प्रत्येक विभाग द्वारा हिंदी में लिखी गई अधिकतम ई-मेल संचार और टिप्पणियाँ
5. राजभाषा कार्यान्वयन समिति बाइरैक की त्रैमासिक बैठक

29 सितंबर, 2023 को पखवाड़े का समापन समारोह आयोजित किया गया। इस कार्यक्रम में सभी पदाधिकारियों ने अति उत्साह के साथ भाग लिया।





Brainstorming Meeting on Biomanufacturing of 'Enzymes' held on 2nd September, 2023 (via online and offline mode)

The brainstorming meeting on Biomanufacturing of 'Enzymes' was held on 2nd September, 2023 at in Stem, Bengaluru. The meeting was attended by stakeholders, industry experts and representatives from BIRAC. The Stakeholders from academia and industry deliberated on the current status, challenges, and future directions in Enzyme Biomanufacturing sector. The focus of this meeting was to increase/widen the use of enzymes across industries and creating the ecosystem for manufacturing of enzymes in India, which are important to prepare India for a decarbonized tomorrow.



Glimpses of Brainstorming Meeting on Biomanufacturing of 'Enzymes'

Launch of the call: Indo-US Clinical Research Ethics Fellowship Under the aegis of Indo-US Vaccine Action Programme (VAP)

Call Duration : 3rd August to 3rd October 2023

OVERVIEW

India's clinical research market has showed fast pace growth in the last decade and is expected to grow at an 8.7 percent compounded annual growth rate by 2025 (as per the Fortune India report 2022) Bioethics is an important and critical component of clinical research in development of drugs, biopharmaceuticals, and medical devices. For capacity building in clinical research ethics in India, the Department of Biotechnology (DBT) of the Government of India and the Department of Bioethics at the Clinical Centre of the National Institute of Health (NIH) in the United States have collaborated to build capacity by providing research grants to early career scholars in bioethics (with a focus on clinical research) in India. The grant will be implemented through the Biotechnology Industry Research Assistance Council's (BIRAC) under the National Biopharma Mission.



**INVITE PROPOSAL FOR
INDO-US CLINICAL RESEARCH
ETHICS FELLOWSHIP**
under the aegis of
Indo-US Vaccine Action Programme (VAP)
National Biopharma Mission
(Mission co-funded by
Department of Biotechnology
and World Bank)

OBJECTIVE
Program jointly conceptualized by Department of Biotechnology, GoI and Department of Bioethics, National Institutes of Health (NIH), US with the aim to create capacity in the area of clinical research ethics.

FELLOWSHIP & RESEARCH GRANT AMOUNT
A fellowship amount of Rs. 2.00 lakhs/annum for candidates who have a permanent position in the host institute or Rs. 10.20 lakhs/annum for candidates working on temporary/contractual/adhoc position, with additional research grant not exceeding Rs. 40 Lakhs for a period of 3 years for each selected fellow, which will be supported by NBM-BIRAC. The selected fellow shall be eligible for short focused visit for the purpose of research at NIH's Department of Bioethics, US, which will be supported by NIH, US

Call Opens
03rd August
2023

For online application details and eligibility criteria please login to BIRAC website <https://www.birac.nic.in>

Last date of Submission
15th September 2023
(5:30 PM IST)

For queries please contact:
PMU-NBM
nbm1.birac@nic.in; nbm5.birac@nic.in

OBJECTIVE

The objective of the program is to support motivated individuals with strong scientific background with interest in the field of bioethics. The fellowship aims towards building a critical mass of trained scholars who will contribute actively to the international literature on clinical research ethics, and who will be able to advise clinical researchers, administrators, and policy makers in India on emerging issues.

The grant carries a fellowship honorarium of Rs.2.00 lakh per annum for candidates who have a permanent position in the host institute and of Rs. 1.028 Lakhs per annum for temporary position candidate. In addition to the fellowship, a research grant, not exceeding Rs. 40 Lakhs for a period of three years for each selected fellow candidate, will be provided to pursue their research in the field of bioethics.

The selected Fellow shall be eligible for 2-3 months short focused visit for the purpose of research provided in the scope to the NIH's Department of Bioethics. Under this, the fellows will get the following which is over and above the Research Grant: a. Support to cover round trip economy class travel expenses from Fellow's home city to Bethesda, MD as well as living expenses for 2-3 months (Up to a total of USD 12,000 per Fellow) b. The Fellows will have the option to apply for USD 3,000 to cover relevant travel in U.S. during their stay at the NIH Clinical Centre. This amount will be provided to the selected Fellow directly by NIH.

Under this call 26 applications were received and 08 have been shortlisted for further evaluation by the Committee comprising Indian and US (NIH) domain experts.

Biotechnology Ignition Grant: Big 23rd Call Launch



**BIOTECHNOLOGY INDUSTRY RESEARCH
ASSISTANCE COUNCIL (BIRAC)**

(A Govt. of India Enterprise)

BIG

Kick Starting Entrepreneurships

BIG 23rd Call BIOTECHNOLOGY IGNITION GRANT

Igniting New Ideas

**Innovative Ideas with commercialization potential
900+ ideas supported**



Innovations under Healthcare, Lifesciences, Diagnostics, Medical Devices, Drugs, Vaccines, Drug Formulations and Delivery Systems, Industrial Biotechnology, Agriculture, Secondary Agriculture, Waste Management, Sanitation, Clean Energy, and related areas.



Eligible Entities Include

Individual Entrepreneur with Graduate degree in any discipline, Research Scholar, Scientist.

Start-up having a registered company/ LLP incorporated on/ after 1st July 2018

Seek Mentoring from BIRAC's BIG Partners & Associate Partners



Apply Online
www.birac.nic.in

Apply Before
16th August, 2023 (05:30 PM)

Refer guidelines and FAQs
www.birac.nic.in

For additional info, please contact: Ms. Diksha Rathore | Email: biracbig.dbt@nic.in

Biotechnology Ignition Grant: Big 23rd Call Launch

Big Partners



www.ccamp.res.in



www.fitt-iitd.org



www.ikpknowledgepark.com



www.kittincubator.in



www.venturecenter.co.in



www.siicincubator.com



www.aidea.naarm.org.in



www.sineiitb.org

Call for proposals under i4 and PACE

To apprise the biotech community of the various funding schemes of BIRAC and on writing effective grant proposals, BIRAC organizes webinars in both online and offline mode. 3 webinars were organized in the month of July, 2023 in association with C-CAMP, BITS Pilani and Federation of Asian Biotech Associations (FABA). These were attended by about 300 participants. These interactive sessions were well received and active participation was witnessed during the Q&A session.

Call for proposals under i4 and PACE was launched on 15th June, 2023 and was open until 31st July, 2023. This was a challenge call aligned to the mission programs of Government of India and other areas of national priority.



Biotechnology Industry Research Assistance Council
(A Government of India Enterprise)

INVITES PROPOSALS
for
Development, validation & pre-commercialization of products/technologies
in the areas of

Healthcare
Veterinary Sciences & Aquaculture

Energy and Environment
Agriculture and Secondary Agriculture

Under Challenge Call*

i4 (Intensifying the Impact of Industrial Innovation)	PACE (Promoting Academic Research Conversion to Enterprise)
Supports industry through:	Supports academia through:
<ul style="list-style-type: none"> ► SBIRI (Small Business Innovation Research Initiative) ► BIIP (Biotechnology Industry Partnership Programme) 	<ul style="list-style-type: none"> ► AIR (Academic Innovation Research) ► CRS (Contract Research Scheme)

*Refer to RFP for more information.

For online application, scheme details, RFP and information on priority areas, please log on to BIRAC website (www.birac.nic.in)

Last date for submission of proposals
31st July, 2023 (up to 5:30 pm)

For queries, please contact:
GM & Head - Investment, BIRAC. Email: investment.birac@gov.in





For further information please contact:

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