



सत्यमेव जयते
DEPARTMENT OF BIOTECHNOLOGY
MINISTRY OF SCIENCE & TECHNOLOGY
GOVERNMENT OF INDIA



75

BIO  **TECH**

STARTUP PRODUCTS

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MESSAGE

Biotechnology has been playing a pivotal role in addressing problems/challenges in the field of healthcare, agriculture & secondary agriculture, food & nutrition, clean energy & environment, etc. The relevance, contribution and impact of Biotechnology was amply illustrated during the recent pandemic. Ranked among the top 12 bioeconomies globally, India strives to become a major global player of this sunrise industry. Adopting a well-crafted National Biotech Policy formulated by Department of Biotechnology, and a vibrant entrepreneurial ecosystem created through Biotechnology Industry Research Assistance Council (BIRAC), Indian bioeconomy is poised to cross US\$ 150 Billion by 2025.

BIRAC has closely aligned its activities with the different national programmes and initiatives towards an Aatmanirbhar Bharat. During its 10 years of existence, the network created by BIRAC across the country through its various programmes has given a significant impetus to biotechnology development. It is heartening to note that many products have been developed under these programmes, several of which are in domestic market as well as international markets. This booklet highlighting 75 products by startups in the 75th year of independence also signifies the achievements of the biotechnology sector in India.

I congratulate DBT and BIRAC and all startups for their dedicated efforts and contribution, and wish all the stakeholders' success in their ventures.

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FOREWORD



Department of Biotechnology, Ministry of Science and Technology, Government of India had set up Biotechnology Industry Research Assistance Council (BIRAC), a not-for-profit, section 8, public sector enterprise in 2012. BIRAC is mandated to act as an interface agency to strengthen and empower the emerging Biotech enterprises to undertake strategic research & innovation, translating knowledge into technology led affordable and globally competent product development, addressing unmet needs.

In the last 10 years, BIRAC has taken rapid strides in building the biotech innovation ecosystem in the country especially providing funding to all stages of innovation and product development, supporting startups, SMEs, establishing bio incubators and creating several platforms for startups and SMEs to interface. BIRAC has also forged collaborations with different stakeholders including venture capital.

The booklet featuring exemplar list of product and technologies is a testimony of the unconditional support and handholding provided to different stakeholders eventually converting the efforts of innovators and entrepreneurs into tangible products.

Many startups covered in this catalogue and several more which are under various stages of development have potential to scale and establish themselves at national and international markets. My heartiest congratulations to the wonderful effort made by these startups. Onus is on the stakeholders including Industry, Investors, Agencies, Public procurement bodies to help them nurture and grow. I hope the event "Biotech Startup Expo - 10 years of BIRAC" would bring newer opportunities for everyone.

Dr. Rajesh S Gokhale

Secretary, Department of Biotechnology & Chairman, BIRAC

PREFACE



During the last few years, Indian Biotech Sector has shown exponential growth. The extraordinary contribution of Biotechnology Industry Research Assistance Council (BIRAC) in this regard, is exemplary & transformational. Several customized and uniquely positioned initiatives of BIRAC have helped recognising the Biotech Entrepreneurship as a career option.

BIRAC has been able to contribute to the rapid positive changes that have taken place in the Indian Biotechnology Landscape-spurring a growth of innovation driven R&D, through its pioneering programmes, at every level of the ecosystem including biotech startups, SMEs and research institutes.

This booklet features few of the innovative products and technologies developed by BIRAC supported/nurtured startups. This book is also a reflection of the fact that the Indian Biotech Industry backed by strong commitment of the Department of Biotechnology and BIRAC is ready to make a global presence.

I sincerely complement the dedicated efforts of all the stakeholders and thank them for their distinct support and commitment towards fostering and nurturing the biotech innovation ecosystem.

I am sure that the mega event “Biotech Startup Expo - 10 years of BIRAC” would bring newer opportunities for everyone.

Dr. Alka Sharma

Senior Adviser (Scientist 'H'), Department of Biotechnology
and Managing Director, BIRAC

25.	Heka Medicals India Private Limited	HekaFlo- IoT enabled High Flow Nasal Oxygen Therapy Device	25
26.	Icaltech Innovations Private Limited	Antlia™ Pulmonary Diagnostic Device	26
27.	Inno Dx Solutions Private Limited	Inno Detect CL COVID-19 iso-PCR Kit	27
28.	Intech Harness Private Limited	IoT Enabled Farmer Obedient Pump Controller	28
29.	Intessence Solutions Private Limited	Refirm: Endosseous Dental Implant System	29
30.	Janitri Innovations Private Limited	DAKSH and KEYAR: Intrapartum Devices	30
31.	Kcat Enzymatic Private Limited	7D Grid Technology and Artificial Intelligence - based enzyme engineering framework	31
32.	Krimmi Biotech LLP	Eco-friendly Process to Induce Silkworm for Naturally Coloured Silk Fibre	32
33.	Kwaklei and Khonggunmelei Orchids Private Limited	Hybrid orchids (Indian Origin)	33
34.	Lab Iconics Technologies LLP	Lab Iconics LIMS (Laboratory Information Management System)	34
35.	Maitipathra Nutraceuticals Private Limited	Production of immunity booster Tea from Medicinal Mushroom - Cordyceps	35
36.	Medi Asha Technologies Private Limited	Fracto Aid - Ready-to-Use Orthopaedic Splint	36
37.	Mylab Discovery Solutions Private Limited	Coviswift: Covid 19 S Plus Rapid PCR Kit	37
38.	Natura Crop Care	NaturActiv+: Biomimetic fruit fly trap	38
39.	Navariti Innovation	Helio-T and Smart Paddy: Automatic Irrigation System	39
40.	Neerx Technovation Private Limited	SHOOL - Smart Sensing for Crop Intelligence	40
41.	Nemocare Wellness Private Limited	Nemocare Raksha	41
42.	Neukelp Innovation Technology Private Limited	Neukelp: Smart Posture Trainer	42
43.	Newndra Innovations Private Limited	Jaipur Belt: Solution for back and spine support	43
44.	Nutrigenetics Life Science Private Limited	Plantegg - Plant based egg protein alternative	44
45.	OCT Therapies and Research Private Limited	Hair Regeneration Serum	45
46.	Pad Care Labs Private Limited	Sanitary Napkin Disposal and Recycling System	46
47.	PiChem Chemicals Private Limited	Long term effective germ and water repellent nano solution	47
48.	Piscium Health Sciences Private Limited	alpha: Nano Diamond Dental Burs	48
49.	Prantae Solutions Private Limited	Proflo-U Microalbumin Measurement System	49
50.	Ramja Genosensor Private Limited	PRATHAM - Novel Paper Genosensor	50
51.	Reinste Nano Ventures Private Limited	Warrior: Long-Acting Antimicrobial	

Intessence Solutions Private Limited



Refirm: Endosseous Dental Implant System

Area: Healthcare-Devices and Diagnostics

Product Description:

- ◆ 'Refirm' is an endosseous dental implant system with accompanying prosthetics and provides twin benefits of 'Easy placement' and 'Good stability'.
- ◆ The implant system incorporates proven advances in the field such as 'Conical connection', 'Platform switch', 'Crestal Micro-threads' and 'Abrasive blasted and etched surface'.
- ◆ The prosthetic connections are provided on a single platform making it convenient for dentists to choose from a variety of prosthetic options.
- ◆ The novel external macro form makes the implant easier to place, provide stability and resolve loads optimally.

National/Societal Relevance:

In India, 70% of the population aged above 25 has at least one tooth loss and 16% aged over 50 have complete edentulism. Complete loss of teeth is a serious problem affecting the health and quality of life. The present dental implant system is making an effort to address the issue.

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