

Government of India
Ministry of Science & Technology
Department of Biotechnology
Block No. 2, 6–8th Floor, CGO Complex, Lodi Road, New Delhi 110 003

Subject: Call for Research Proposals on 'Biotech Product and Process Development'

The Department of Biotechnology, Ministry of Science & Technology invites project proposals from Indian scientists having sound scientific track records for initiating R&D work in the area of '**Biotech Product and Process Development**' – either independent or joint multicentric in nature for implementation during the 11th Five Year Plan (2007–2012). The proposals invited should have industry partnerships involving in-house R&D recognized units including NGOs who are ready to share the cost of the project either in cash or kind. The purpose of the announcement/advertisement is to give wide publicity to promote application oriented research leading to biotech product and process development and to create close collaborative network of basic researchers and industry. Multi-centric and multi-investigators proposals will be encouraged with proper milestones, time schedule and defined role of individual institutes/centres based on their expertise. Proposals would also be received from interdisciplinary groups with demonstrative research capabilities. The proposed financial supports will be highly competitive and the applicants should have proven track record.

Some of the identified broad areas for implementation as net work programmes with financial support for a period of 3 years are:

- Biotransformation to make bioproducts like amino acids, antibiotics, drug intermediates, esters and chiral products, hyaluronic acid, COQ-10, etc. cheap and cost effective
- Optimization of vaccine production using modern engineering techniques
- Optimization of bioethanol production from cellulose and hemicellulose and from agro wastes
- Reactor Engineering and improvement in Membrane Separation Technologies for recovery of proteins and biomolecules and other recombinant DNA products where recovery is a problem.
- Optimization of the production and application of industrially important enzymes through solid state fermentation and submerged fermentation
- Development of Biotechnology tools for management of environmental problems: Important areas identified are – Bioremediation and phytoremediation, Monitoring and measurement, Substitution of chemicals by enzymes, Treatment of industry effluents and processing industry, Finishing techniques of textiles – for cotton textiles, polyester textiles and blends, Treatment of organic compounds and refractory compounds which cannot be removed by conventional methods, Treatment of Dimethylformamide (DMF) in aqueous streams.

Some of the identified areas for result-oriented, time bound multi-institutional, multi-disciplinary mission mode projects with programme support for a period of 3 years are:

- Drug delivery system for therapeutics/biomolecules
- Development of novel molecules for eradication of TB
- rDNA and molecular biology
- Perfection of technology for production and purification of asparaginase.

Besides the above identified areas, proposals with novel/innovative ideas for product related discovery science and product development will also be considered. Effective interdisciplinary partnership and public sector linkages will be considered an asset. For network programmes and mission mode projects applicants are advised to form co-ordinated groups, associating researchers with diverse backgrounds and disciplines so as to investigate an identified problem in an integrated manner leading to product/process development within the prescribed time span. The collaborations can involve teams from one or more institutions, within or outside. All research proposals will be peer-reviewed and approved as per the established procedure. Appropriate formats, terms and conditions, etc. may be obtained from the DBT websites: <http://www.dbtindia.nic.in> or <http://www.dbtindia.gov.in>.

In addition to these competitive grants for 3 years, the Department of Biotechnology welcomes proposals related to Industrial Biotechnology as long-term support under various schemes such as Centre of Excellence, Programme Support and Public-Private Partnership under SBIRI etc. The details are available at DBT websites: <http://www.dbtindia.nic.in> or <http://www.dbtindia.gov.in>.

Twenty copies of the proposal in the prescribed format should reach Department of Biotechnology, Ministry of Science & Technology, Block-2, CGO Complex, Lodi Road, New Delhi 110 003 Telefax: 24361559 by **November 30, 2006**. For any further clarification, please contact at: m.rajalakshmi@nic.in/011-24369612.