



DEPARTMENT OF BIOTECHNOLOGY
Ministry of Science and Technology
Government of India

Call for Proposals on Biosystems and Bioprocess Engineering

Department has initiated a new program on Biosystems and Bioprocess Engineering to promote integration of fundamental knowledge between engineering and biological science to find innovative and efficient solutions for the development and improvement of sustainable bioprocesses of commercial interest. The current need is to overcome the constraints involved in large scale production processes with focus towards clean and green technology. The endeavor would be to support interdisciplinary approaches for developing translational research oriented projects in this area.

R & D proposals are invited in the following areas:

- **Biotransformation and Enzyme Engineering:** Application of enzyme or whole cell as a biocatalyst for the production of industrially important specialty/ bulk chemicals. Design of enzymes for specific applications such as biotransformation, drug discovery, diagnostic tests, biosensors or any other commercially significant applications.
- **Host and Metabolic Engineering:** Manipulation of hosts such as bacteria, fungi, animal and insect cells for the production of small molecules, proteins, enzymes, biosimilars, vaccines, etc. Metabolic engineering of organisms to produce commercially important chemicals and biochemicals.
- **Biosystems Engineering:** Model-based design of bioprocesses leading to new sustainable production processes, systems-level approaches to optimization of bioprocess/bioprocess plant with advanced design, analysis and optimization tools, integrated bioprocess development, developing advanced monitoring and control for bioprocesses, process analytical techniques and quality based design of bioprocesses.

Eligibility:

- Scientists working in the Universities/Academic Institutions/National Laboratories & Non-Profit Organizations, with sound scientific backgrounds and relevant publications in proposed area.
- The proposal should be preferably developed on network mode involving two or more institutes. Inclusion of industrial partner with involvement in the work will be considered as

an advantage; Specific role of the industry with possible contribution (financial/ in-kind contribution) must be provided.

- The proof of concept, preliminary results, available leads and quantifiable targets should be clearly defined (proposals should not include screening and isolation of micro-organisms).

Mode of Selection:

Proposals received would be screened by constituted expert committee for consideration for financial support and Short-listed proposals would be further screened by Task Force.

Mode of Submission:

Proposals may be submitted online in the DBT's R & D format through **eProMIS** (<http://dbtepromis.nic.in/Login.aspx>) under Category of Area-**'Biosystems & Bioprocess Engineering'** clearly stating 'proposal against Call for Proposal' as mentioned in DBT format. 3 hard copies also to be sent to: **Dr. Kakali Dey Dasgupta**, Scientist 'D', Department of Biotechnology, Block-2, Room No.816, 8th floor, CGO Complex, Lodhi Road, New Delhi – 110003 [kakali.dey@nic.in].

Last Date of submission: May 01, 2015.

New Extended Date of Submission – May 15, 2015.

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