

**DEPARTMENT OF BIOTECHNOLOGY
MINISTRY OF SCIENCE AND TECHNOLOGY
GOVERNMENT OF INDIA**

**CALL FOR PROPOSAL (2025-26)
IN
ARTIFICIAL INTELLIGENCE
For
ALGORITHM OR PRODUCT OR SOFTWARE DEVELOPMENT**

Last Date of Submission of proposal:

15th February, 2026

In the biotechnology domain, there is a need for accelerating the R&D and post R&D processes. Artificial Intelligence (AI) possesses the capability to enhance the R&D momentum both at the academic and the Industrial levels through analysing large amounts of data and making predictions or recommendations that can have significant implications for public health, environmental safety, and other important areas.

The Department of Biotechnology is announcing this Call for Proposal (2025-26) in order to apply the artificial intelligence to resolve the biotechnological challenges for enhancing the research & development capability, boosting the industrial growth as well as supporting the start up ecosystem. This Call is open to Indian Scientists/Faculties including Computer Scientists, Engineers, Clinicians either alone or as a team involving the Industrial partner(s).

2. OBJECTIVES

The major goal is to develop the AI assisted novel and innovative solutions for ongoing or upcoming challenges through academic or industrial research and development activities. The broad objectives are as follows -

- a) Developing AI based capability and capacity in the Biotech sector
- b) Encouraging the automatization of processes
- c) Enhancing the academic-industrial linkages and boosting Start-up ecosystem
- d) Establishing the AI based networks and virtual clusters

3. PRIORITY AREAS

The following priority areas have been identified in Artificial Intelligence area for achieving the objectives:

- a) Algorithm development, management and analysis for voluminous biological data generated through omics studies or substantial clinical data.
- b) AI assisted novel solution or algorithm development leading to significant improvement of existing methods for biopharmaceutical drug and/ or identification of target based on biotechnological omics data.

- c) AI based algorithm development for assessing the toxicity & adverse reactions of bio pharmaceuticals, biologicals and Neutraceuticals. Proposals proposing application of AI in cheminformatics for SAR prediction are discouraged unless there is exceptional novelty.
- d) AI based algorithms for predicting effect of mutations for disease association of SNPs and other linkages.
- e) Design and engineering of novel proteins with higher stability and/or new functional activity.
- f) AI based algorithm development for Vaccine & Antibody engineering.
- g) AI based models for predicting host-pathogen interactions.
- h) AI based models for predicting and managing Anti-microbial resistance.
- i) Application of AI to construction, simulation or analysis of biological pathways/network models.
- j) AI based tools or Large language Models for developing the Self learning modules for biotechnology at different education standards i.e. School/University level.

4. ELIGIBILITY CRITERIA FOR PROPOSAL SUBMISSION

- a) Any Indian National holding a regular position in any Indian academic and scientific research institutions (Government/Private) either on their own or in collaboration may apply.
- b) This call for proposal is open to all applicants eligible for Govt. funding. The research institutions must be recognized by DSIR as a Scientific and Industrial Research Organization (SIRO).
- c) Private institutions/ NGOs should have proof of registration at 'NGO DARPAN' of NITI Aayog (<http://ngodarpan.gov.in/>), Certificate of registration under Society Registration Act, Organization's Memorandum of Association, Organization's Articles of Association, Valid DSIR-SIRO certificate/ DSIR in-house R&D recognition certificate (as applicable), and Duly audited account statements for the past three successive years.
- d) There should be at least one co-investigator from each participating institute and either one of the PI or Co-PI should have remaining service in co-terminus to the duration of the project.
- e) It is mandatory to submit all data/ secondary data, if generated under the project, to IBDC hence a data sharing plan has to be submitted along with the proposal.
- f) The extant provisions/rules of funding as applicable to extramural projects funded by the Department shall apply to the proposals/projects received under this call.
- g) Proposals of exceptional quality leading to thorough execution of the priority areas and likely to deliver after the completion of the project will be preferred.
- h) The proposal should have clear objectives, rationale, clearly specified deliverables and a detailed work plan as well as complimentary in case of network proposals.
- i) Any collaborative/network proposal must clearly define the role of each collaborator. The role of collaborator must be complementary in nature rather than repetitive/independent. Network proposals will be given preference.
- j) A proposal encompassing the comprehensive approach for achieving the defined priority areas will be preferred.
- k) Investigator(s) having a track record for technology development will be preferred

5. FINANCIAL SUPPORT

Funding procedures and eligible costs are subject to prevailing extant guidelines of DBT. Apart from the terms and conditions of the grant, the additional condition for this call is as follows -

- a) DBT will provide the financial support only to an academic and scientific research institutions, however, a research institution may collaborate with industry to develop a product. If an industry is involved, a copy of an IPR sharing certificate or any formal arrangement may be submitted along with the proposal. DBT Intellectual Property Guidelines 2023 shall be applicable.
- b) The support will be provided for a period of three years from the date of first financial release of the project.
- c) Infrastructure will be established in an academic/research institution only.

6. MANDATORY REQUIREMENTS

Once the proposal is recommended for support, thereafter submission of necessary documents (Declaration/Certificate, check list from the Head of the institution, Applicable clearances etc) by the PI is must for further processing for receiving the grants.

- a) All data, generated in the project, will have to be made available at IBDC in accordance with the Biotech-PRIDE guidelines and FeED protocols after all regulatory and ethical clearances from each organization involved and be stored at the grantee institution.

7. CRITERIA OF SELECTION

The following category of proposals will be given preference:

- a) industry demand driven projects
- b) multidisciplinary and inter-institutional
- c) collaborative with clear objectives
- d) having deliverable potential within three years
- e) proposing national interest e.g. proposing towards achievement of sustainable development goals
- f) within the mandate of the theoretical and computational biology programme

8. MONITORING AND FOLLOW UP OF THE PROJECT EXECUTION

The Investigator is required to submit an annual progress report for evaluation by an Expert Committee as per prevailing DBT's guidelines or as and when required.

9. PROPOSAL FORMAT & SUBMISSION

Electronic copy of a proposal needs to be submitted through DBT's online proposal submission system (<http://dbtepromis.nic.in/login.aspx>) under Call for Proposal created under 'Artificial

Intelligence' component of Theoretical & Computational Biology Programme. The following may be noted –

- a) Incomplete or incorrectly filled up application with lack of essential information/ documents will be summarily rejected.
- b) Proposal submitted through e-mail will not be entertained.

10. Link for Submission of Proposals

<http://dbtepromis.nic.in/login.aspx>

Note: Applicants are requested to submit proposal well in advance before reaching last date of submission since there will be no extension of the last date for submission of the proposals.

For any information, kindly contact:

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