Department of Biotechnology
Ministry of Science and Technology
Government of India

CALL FOR PROPOSALS

for

Establishment of Bioinformatics & Computational Biology Centers Under BIO-GRID

I. Background

Bioinformatics has become central to modern life sciences, driving breakthroughs from genome analysis to drug design. Recognizing the critical role of computational approaches, the Department of Biotechnology (DBT) has consistently strengthened national research infrastructure to integrate experimental biology with computational innovation. DBT's Bioinformatics Centers serve as essential hubs, providing infrastructure, expertise, and collaborative platforms that transform biological data into actionable insights. However, the growing scale of data and limited capacity of existing facilities highlight the urgent need for advanced centers with cutting-edge resources and skilled personnel—a gap the DBT's Bioinformatics Centers grant programme seeks to fill.

II. AIM of the Call:

The Department of Biotechnology (DBT), Ministry of Science & Technology, Government of India, invites proposals from eligible universities, academic institutes, research organizations and medical/agricultural institutions for establishment or up-gradation of Bioinformatics Centers under BIO-GRID to support advanced research and training in life sciences, biotechnology and health.

Proposals are sought in areas including, but not limited to: genomics and transcriptomics data analysis, structural and systems biology, AI/ML in biology, computational drug discovery, agricultural and environmental bioinformatics, and development of open-access tools, databases and resources relevant to national priorities.

The DBT-BIOGRID programme for establishment or up-gradation of Bioinformatics Centers has been meticulously designed with ambitious yet achievable objectives that align with India's broader vision of becoming a global biotechnology hub by 2030.

III. Objectives:

The overall objectives of the BIO-GRID network should be to create a robust ecosystem where bioinformatics serves as the catalyst for transformative discoveries, bridging the gap between data

generation and biological understanding, ultimately translating computational insights into tangible societal benefits. Specific objectives are as follows:

a. **Research and Development**: The DBT Bioinformatics Centres under BIO-GRID encompasses an exceptionally broad scope of research activities and focus areas, reflecting the multifaceted nature of modern computational biology and its applications across diverse domains of biological sciences.
b. **Establish State-of-the-Art Infrastructure:** Create Bioinformatics Centres equipped with high-performance computing clusters, advanced analytical software suites, secure data storage systems, and specialised workstations capable of handling computationally intensive tasks such as whole genome assembly, molecular dynamics simulations, and large-scale phylogenetic analyses.
c. **Foster Interdisciplinary Collaborations:** Build bridges between computational scientists, mathematicians, statisticians, and experimental biologists, creating environments where diverse expertise converges to tackle complex biological problems that cannot be solved by any single discipline in isolation.
d. **Provide Comprehensive Analytical Ecosystem:** Enable high-throughput data analysis capabilities, support algorithm development and validation, facilitate database creation and maintenance, and provide platforms for testing novel computational approaches in real-world biological contexts.
e. **Enable Translational Research Impact:** Connect fundamental computational biology research with practical applications impacting healthcare through precision medicine and diagnostic development, agriculture via crop improvement and sustainable farming, environmental science through biodiversity conservation and climate adaptation, and industry by supporting bioprocess optimization and biomanufacturing innovations.
f. **Resource Development:** Develop and share computational tools, algorithms, and platforms for large-scale biological data analysis and integration. Build open-access repositories and infrastructure that support the collection, curation, and sharing of diverse biological datasets. Drive professional development through training, webinars, workshops, and intergenerational mentoring to build sustained capacity in computational biology. Foster communication platforms that enable information exchange, science outreach, and career development.

IV. Proposal Guidelines:

Eligibility Criteria for Bioinformatics Centre:

A. Each institution may host **only one Bioinformatics Centre (BIC)**, establishing clear lines of responsibility and resource allocation. The proposal should focus on concentrated expertise and

infrastructure development, Unified strategic direction for bioinformatics initiatives, efficient resource utilization and institutional support and Clear accountability for deliverables and outcomes.

B. The Coordinator must be from the field of Bioinformatics/Computational Biology specifically to ensure the authentic disciplinary leadership rather than administrative convenience. The Coordinator should have genuine bioinformatics expertise at the helm, strategic vision grounded in computational biology, Leadership that understands both biological and computational dimensions and Credibility within the national and international bioinformatics community through publications, EMR projects and other documented track records.

C. The Centre's core area must reside within one of the following bioinformatics or computational biology, not peripheral or tangentially related fields:

a. Genomics and transcriptomics analysis
b. Protein structure prediction and molecular modeling
c. Systems biology and network analysis
d. Biodiversity informatics, Evolutionary and comparative genomics
e. Omics and microbiome analysis
f. Pharmacogenomics and drug discovery and validation
g. Plant genomics and crop improvement
h. Agricultural biotechnology applications

D. Core activities of the center:

i. Research: Research in bioinformatics aims to enhance knowledge and methods through computational approaches, involving up to three partner institutions with distinct capabilities crucial for project success. A Centre can participate in a maximum of two BIC research components aside from its Host research proposal. The focus is on developing and applying computational tools for high-throughput data analysis, including genomic sequence assembly, annotation, transcriptomic profiling, proteomic analyses, and metabolomics studies. The goal is not only to use existing tools but also to foster methodological innovation by creating novel algorithms, enhancing computational efficiency, and validating techniques through experimental collaboration.

ii. Database Development: Beyond tool development and application, Centres should support data management, curation, and bioinformatics resource development activities. This includes creating and maintaining biological databases tailored to Indian biodiversity,

agricultural varieties, or disease populations; developing web-based platforms for data sharing and collaborative analysis; and establishing standardized data formats and quality control pipelines.

iii. **Role Specification:** Proposals must clearly define the contribution of each investigator and institution, avoiding vague or overlapping responsibilities. Each participant should clearly state specific research objectives unique to their contribution, defined deliverables and timelines, clear explanation of expertise or resources they uniquely provide, description of interdependencies with other project components and explicit resource allocation and budget justification. Proposals with collaborations with Computer science Departments/Experts/Institutes will be encouraged. ***Proposals with generic role descriptions or symmetric contributions across institutions will be deemed insufficiently articulated.***

iv. **Training:** Capacity building through courses, workshops, student supervision, and educational programme development at multiple levels.

v. **Outreach Activities:** Knowledge dissemination, community engagement, database maintenance, tool distribution, and scientific communication initiatives.

vi. **Support Services:** Infrastructure provision, computational resources, data analysis assistance, and collaborative support for broader research communities.

vii. Successful Centers must demonstrate capability and commitment across all five domains, with appropriate resource allocation, personnel expertise, and institutional support for each activity stream. Proposals lacking balanced attention to all pillars will be deemed incomplete, regardless of research excellence in isolation.

viii. ***Proposals led by Coordinators with demonstrated multi-institutional project management capability will receive favorable consideration during competitive evaluation***

E. **Performance Evaluation for Existing Centres:** The existing Centres of BTISNet of DBT (if interested to receive funding) should also submit fresh proposals in response to this Call. Continuation of funding to them (as a fresh applicant) will be assessed alongside and in

competition with all other proposals submitted to the Call. For institutions hosting existing Bioinformatics Centres, past performance will also be rigorously evaluated as per the conditions laid below apart from the criteria articulated above:

a. **Research Programme Coherence:** Assessment of whether the Centre maintained clear focus in defined core areas with demonstrable expertise and sustained contributions. The project articulation must demonstrate why collaboration is essential, not merely convenient—tasks should be genuinely interdependent, not parallelisable. The research problem must inherently require multiple disciplines and perspectives. Research proposal may be on themes or leads of existing NNP projects however the proposal with same/duplication of objectives or mere simple extensions of the objectives of existing NNP or Bioinformatic Centre projects will not be considered.
b. **Activity Balance:** Evaluation of Centre performance across research, training, support, and outreach pillars—ensuring balanced attention rather than exclusive research focus.
c. **Resource Utilization:** Examination of how effectively infrastructure and personnel have been deployed to achieve stated objectives and deliverables.
d. **Publication Quality and Leadership:** Review of first/corresponding author papers in bioinformatics journals, citation impact, and research leadership demonstrated through the publication record.
e. **Submission in IBDC:** Efforts/ No. of submissions of PIs & Co-PIs made by the Coordinator in Indian Biological Data Centre. These submissions may or may not be part of research carried out in the Bioinformatics Centre.

Centers failing to meet the above standards may not be continued beyond phase 2

F. All data generated through Bioinfomatics center will have to be made publicly available in accordance with the BIOTECH-PRIDE guidelines and FeED protocols after all regulatory and ethical clearances from each organization involved. The Data should be deposited in the IBDC database and clear plan to this should be spelt out in the proposal. The selected proposals are expected to work with the IBDC team from the beginning to facilitate this data transfer as it becomes available. Reasonable embargo periods are permitted in accordance with the BIOTECH-PRIDE guidelines to permit investigators to publish first.

V. Eligibility

1. Any Indian National holding a regular position in any Indian academic and scientific research institutions (Govt./Private) may apply. 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).
2. 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.
3. 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.
4. Use of free and open source Software is preferred and encouraged to for training and executing the project and to ensure usability of the data to the research community at large
5. Plan of long-term sustainability need to be presented in the proposal.
6. It is mandatory to submit all data to IBDC hence a data sharing plan has to be submitted along with the proposal. Proposal without data sharing plan will not be accepted.
7. The extant provisions/rules of funding as applicable to extramural projects funded by the Department shall also apply to the proposals/projects received under this call.

VI. FINANCIAL SUPPORT

1. The Department envisages grants-in-aid support to ambitious and focused Projects of up to 5 years duration. The budgetary requirement per project shall not exceed ₹ 5.00 Cr
2. Non-Recurring Budget should not be more than 30% of the total proposed cost and should mainly include compute and storage infrastructure-related budget.
3. Grant Components:

    a) GIA-Capital (Non-Recurring Budget): Equipment & Other Accessories

    b) GIA-General (Non-Recurring Budget): Manpower (as per Govt. of India guidelines), Consumables, Training and Workshop, Contingencies, Travel (Domestic only) Others (if any with proper justification) & Overheads as per DBT guidelines.
4. Grants-in-aid support to the components of the proposal which are PRIVATE R&D institutions (including private universities and Not-for-profit NGO(s)/ VO(s)/ Trust(s)/ Research foundations) shall be up to INR 2.5 Cr. and it should be in alignment with the justification offered for the

proposed cost by such partner(s). Grants to profit making institutions will be limited to only Rs.50 lakh. Remaining amounts may be arranged by the profit making institutions themselves.

5. In case the existing Bioinformatics Centers projects are successfully selected through this call, **the funding support under the existing Bioinformatics Center will CEASE from the day of issuing of 1st release order for the project granted under this call.** The center will process for Final Settlements of Accounts till the said date, before issuance of subsequent grant. Existing NNP projects may continue as per their tenure.
6. At a given time, an Institute cannot implement two Bioinformatics Centers. Hence, a written declaration of the Executive Authority of the Institute is mandatory regarding the closure of previous Bioinformatics Center project (irrespective of the Project coordinator) in the Institute. This will a mandatory requirement while submission of financial documents.

VII. MODE OF SUBMISSION:

Interested investigators should submit proposals online only through DBT 'eProMIS' portal (https://dbtepromis.nic.in) under the **Programme area BTIS-Network**. The proposals which are not submitted through DBT eProMIS portal will not be considered further.

VIII. PROCESSING OF PROPOSAL:

The Proposals will be screened based on the scheme/advertisement guidelines as well as the merit of the proposal. The project investigators may be invited to make a detailed presentation before the Expert Committee, as per DBT norms. The decision of DBT on the proposal will be the final and same will be communicated to the investigator. **The deadline for proposal submission is 31st January, 2026.**

For any queries related to this call, please contact:

Dr. Richi V Mahajan, Scientist 'D',
Department of Biotechnology, Ministry of Science and Technology,
Government of India, New Delhi- 110003
Ph. No.: 011-24363029, Email: rv.mahajan@dbt.nic.in