



जैवप्रौद्योगिकी विभाग
DEPARTMENT OF
BIOTECHNOLOGY

Department of Biotechnology invites Expression of Interest (EOI) focusing on “**Cardiovascular health and diseases**” as a part of Chronic & Lifestyle Diseases Program for gaining deep insights into the pathophysiology of cardiovascular complications and understanding cardiac functions and developing early risk-assessment strategies to prevent the multi-dimensional complexities associated with CVD.

Background:

Recent comprehensive research analysis on Global burden of the Diseases for the period from 1990 to 2019 has identified cardiovascular disease as the topmost causes of the morbidity and mortality in India. It is found that besides the role of metabolic drivers in cardiovascular events, economic, social, and environmental factors also contribute to biological pathway leading to cardiovascular diseases. Long-term cardiac complications have been learnt to be associated post COVID-19 pandemic with worse outcomes in many cases. The patho-physiological mechanisms for the cardiac damage associated with the viral invasion needs to be explored. This also envisages need for better biological models of the myocardium for understanding cardiac functions and to study CV consequences of viral infections. Alongside, it is also imperative to identify the highest-risk individuals for CVD for early-risk assessment and find improved biomarkers and therapeutic leads to reduce the disease burden.

Against this backdrop, Department of Biotechnology invites Expression of Interest (EOI) from public and private Academic institutions/Universities/ R&D centres recognized by DSIR.

Purpose:

Expressions of interests (EOIs) are invited for developing multi-centric collaborative projects involving basic scientists and clinicians in one of the following specific areas of cardiovascular health and diseases only:

a) **Cardiovascular consequences of Viral infection including post-COVID impact**

Molecular mechanisms of viral interaction with cardiac myocytes, cohort studies on post COVID impact on CV health, role of coagulation pathway in post COVID CV morbidity.

b) **Models for understanding cardiac function and drug discovery**

- In vivo mimetic micro-physiological systems pertaining to spatiotemporal alterations in gene/protein/metabolites to be used as platforms for drug discovery, modeling the disease biology

c) **Cardio-metabolic Health-Unmet Need and prevention strategies**

- Identifying the highest-risk individuals (in the paediatric, adolescent and adult populations, among others) for CVD and heart failure

- Earlier identification of patients at risk – novel biomarker identification or predictive algorithms to assess changes in risk
- Prognostic or Predictive biomarker identification (genetic, epigenetic, lipidomic, proteomic, metabolomics etc) and validation leading to earlier recognition of risk and/or protective factors

Who can submit?

Multi-centric EOIs may be submitted by interested Scientists/Clinicians/Biotechnologists/Clinical researchers engaged in public and private Academic institutions/Universities/ R&D centres recognized by DSIR in any one of above-mentioned topic of research only.

The EOIs are indicative of your intent and in no way guarantees funding from the Department.

Format for EOI :

1. Proposal Title
2. Details of institutions and investigators involved in project (including Project Coordinator/ PIs/co-PIs)
3. Area/Topic of research (to mention any 1 out of 3)
4. Scientific Rational with specific biological questions to address the unmet need
5. Clear-cut goals addressing the need
6. Brief strategy to execute the targeted goals
7. Role & responsibility of each collaborating partner
8. Brief CV (1 page) of Project Coordinator/collaborating PIs with a maximum number of 5 publications strictly related to the proposed topic
9. Approximate Budgetary requirement to accomplish the targeted goals

The Lol should be signed by all the PI(s)/Co-PI(s) and forwarded by the Executive Head of the proposed host institution(s).

Mode of Submission:

Submission of EOI in the above format only duly forwarded by the executive head of the institution through email in PDF (one consolidated file with Annexure) and MS-Word file formats [not more than max.5-10 pages] to chronic-medbio@dbt.nic.in

For any queries, may reach out to Dr. Kakali Dey Dasgupta, Scientist 'F', DBT

Last Date of EOI submission: December 15, 2024

Extended date of EOI submission: December 31, 2024