

GUIDELINES FOR RESEARCH & DEVELOPMENT PROJECTS UNDER BIOINFORMATICS

The Department of Biotechnology, as a nodal funding agency, invites proposals from individuals/institutions- either independent or joint multicentric in nature – for pursuing R&D in the area of bioinformatics leading towards product and process development in specific to the following areas:

I DEVELOPMENTAL ACTIVITIES	II ANALYTICAL ACTIVITIES
A) Database Development	
<ul style="list-style-type: none"> Integration of databases and software packages for addressing complex issues in Biotechnology 	<ul style="list-style-type: none"> Analysis of system biology through Bioinformatics tools
<ul style="list-style-type: none"> Development of Value added, dedicated and derived databases such as SNP, EST etc. on various genomes 	<ul style="list-style-type: none"> Understanding protein structure and disease through Bioinformatics
<ul style="list-style-type: none"> Documentation of biodiversity resources for appropriate utilization 	<ul style="list-style-type: none"> Identification of key pathways that support the survival of the infectious agents involved in their pathogenesis
<ul style="list-style-type: none"> Development of clinical information databases of different diseases 	
B) Software Development	III IN-SILICO Drug Discovery – Bioinformatics means
<ul style="list-style-type: none"> Development of new software tools for genomics and proteomics applications 	<ul style="list-style-type: none"> Projects related to modeling, simulation and drug design using Bioinformatics tools and databases
<ul style="list-style-type: none"> Development of tools for analysis of cellular functions and metabolic pathways 	<ul style="list-style-type: none"> Pharmacogenomics and Bioinformatics relevant to Indian scenario
C) Development of Bioinformatics Education Materials	
<ul style="list-style-type: none"> Development of teaching & e-learning modules in Bioinformatics 	<ul style="list-style-type: none"> Effort for virtual experimental screening of chemical libraries with important targets from major infectious diseases

Five copies of the proposal in the prescribed format should be send to Dr. T. Madhan Mohan, Director, Department of Biotechnology, Block No.2, 7th floor, CGO Complex, New Delhi-110003. Please refer **Annexure** for Terms & Conditions. The application for submitting the proposal is given below.

**PROFORMA FOR SUBMISSION OF RESEARCH & DEVELOPMENT
PROJECTS UNDER BIOINFORMATICS**

(To be filled by the applicant)

PART I : GENERAL INFORMATION

1. Name of the Institute/University/Organisation submitting the Project Proposal :
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.....
.....
2. State : 3. Status of the Institute :.....
4. Name and designation of the Executive Authority of theInstitute/University forwarding
the application
.....
.....
.....
5. Project Title :.....
.....
.....
6. Category of the Project (Please tick) : R&D in Bioinformatics
7. Specific Area (As given in the guidelines) :
8. Duration : Years..... Months
9. Total Cost (Rs.)
10. Is the project Single Institutional or Multiple-Institutional S/M) ? :
11. If the project is multi-institutional, please furnish the following :

Name of Project Coordinator
Affiliation :
Address :.....
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.....
.....
.....
.....
12. Project Summary (Not to exceed one page).

PART II : PARTICULARS OF INVESTIGATORS

13. Name :.....
.....
.....

Date of Birth : Sex (M/F):.....

Indicate whether Principal Investigator/Co-Investigator:

Designation

Department :

Institute/University :

Address :.....
.....
.....
.....
.....
.....

PIN :Telephone : Telex :

Fax:..... e-mail :.....

No. of Projects being handled at present :.....

Note : Use separate page, if more investigators are involved..

PART III : TECHNICAL DETAILS OF PROJECT

(Under the following heads on separate sheets)

16. Introduction

16.1 Origin of the proposal

16.2 Definition of the problem

16.3 Objectives

17. Review of Current Status of research and development in the subject

17.1 International Status

17.2 National Status

17.3 Importance of the proposed project in the context of current status

17.4 Anticipated Products & Processes of Practical/Technological utility/Socio-economic relevance expected to be evolved by pursuing the project.

18. Work Plan (Incase fo multi institutional projects, work plan, role & responsibility of each institute to be given separately)

18.1 Methodology

18.2 Proprietary/patented items, if any, expected to be used for this project.

18.3 Organisation of work elements

18.4 Suggested plan of action for utilisation of research outcome expected from the project.

18.5 Time schedule of activities giving milestones.(Physical/Scientific separately)

Sr.No.	Name of Milestone	Expected Start (Month/Year)	Expected Completion (Month/Year)

18.6 Project implementing Agency/Agencies

Name of Agency	Address of Agency	Proposed Research Aspects	Proposed Amount	Cost Sharing %

PART IV : BUDGET PARTICULARS

(In Rupees)

19. Budget

A. Non-Recurring (e.g. equipments, accessories, etc.)

S. No	Item	Year 1	Year 2	Year 3	Total

Sub-Total (A)

B. Recurring

B.1 Manpower (See guidelines at Annexure-III).

S. No.	Position No	Consolidated Emolument	Year1	Year2	Year3	Total

Sub-Total (B.1) =

B.2 Consumables

S. No.	Item	Quantity	Year1	Year2	Year3	Total

Sub-Total (B.2) =

Other items	Year 1	Year 2	Year 3	Total
B.3 Travel				
B.4 Contingency				
B.5 overheadCharges (If applicable).				
Sub-Total (B = B.1 + B.2 + B.3 + B.4 + B.5)				
Grand Total (A + B)				

*Note : Please give justification for each head and sub-head separately mentioned in the above table. Financial Year : April - March
In case of multi-institutional project, the budget estimate to be given separately for each institution.*

PART V : EXISTING FACILITIES

20. Available equipment and accessories to be utilized for the project :

S. No.	Name of equipment /Accessories	Make	Model	Funding Agency	Year of Procurement

PART VI : DECLARATION/CERTIFICATION

It is certified that

- a) the research work proposed in the scheme/project does not in any way duplicate the work already done or being carried out elsewhere on the subject.
- b) the same project has not been submitted to any other agency/agencies for financial support.
- c) the emoluments for the manpower proposed are those admissible to persons of corresponding status employed in the institute/university or as per the Ministry of Science & Technology guidelines (Annexure-III)
- d) necessary provision for the scheme/project will be made in the Institute/University/State budget in anticipation of the sanction of the scheme/project.
- e) if the project involves the utilisation of genetically engineered organism, it is agreed that we will ensure that an application will be submitted through our Institutional Biosafety Committee and we will declare that while conducting experiments, the Biosafety Guidelines of the Department of Biotechnology would be followed in toto.
- f) if the project involves field trials/experiments/exchange of specimens, etc. we will ensure that ethical clearances would be taken from concerned ethical Committees/Competent authorities and the same would be conveyed to the Department of Biotechnology before implementing the project.
- g) it is agreed that any research outcome or intellectual property right(s) on the invention(s) arising out of the project shall be taken in accordance with the instructions issued with the approval of the Ministry of Finance, Department of Expenditure, as contained in Annexure-V.
- h) we agree to accept the terms and conditions as enclosed in Annexure-IV. The same is signed and enclosed.
- i) the institute/university agrees that the equipment, other basic facilities and such other administrative facilities as per terms and conditions of the grant will be extended to investigator(s) throughout the duration of the project.
- j) the Institute assumes to undertake the financial and other management responsibilities of the project.

Signature of Project Coordinator with date

Signature of Executive Authority
of Institute/ University with seal
Date

Signature of Principal Investigator with date Signature of Co-Investigator with date

PART VII : PROFORMA FOR BIOGRAPHICAL SKETCH OF INVESTIGATORS

Provide the following information for the key personnel in the order listed for Form Page 2.
 Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY

NOTE: The Biographical Sketch may not exceed four pages. Items A and B (together) may not exceed two of the four-page limit. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

B. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.

Sl. No.	Title of Paper	Authors	Ref. Journal	Year of publication

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

D. Completed Research Projects

E. Other projects(s) submitted/ being pursued / carried out

Sl. No.	Title of Project	Funding Agency	Duration From To	No. of personal working under this project	Total Approved Cost (Rs.)