



SRIMANTA SANKARADEVA UNIVERSITY OF HEALTH SCIENCES

(A state University of Govt. of Assam)

Narakasur Hilltop, Bhangagarh, Guwahati-32, Assam, India

Phone: 09531462050 (O) E-mail: ssuhs_assam@yahoo.in Website: www.ssuhs.in

No. SSUHS/168/2020

Dated:

CALL FOR RESEARCH PROPOSALS

ON **BIO-DESIGN**

Srimanta Sankaradeva University of Health Sciences (SSUHS) invites research proposals on Bio-Design from Faculty Members and Students of **Colleges/Institutions affiliated to SSUHS**, on competitive basis with innovative ideas and scientific merit channelled towards achieving excellence in the field of Health Sciences.

Bio-design is the specialty of biology-inspired approaches to design and fabrication, by collaborations between medical and engineering experts. Although in India, 'med-tech' has matured significantly, the Bio-design program in Assam is still not started adequately.

Innovation is the key to address the unmet clinical needs. Innovation in medical technologies for developing solutions for local problems is the need of the hour. In a state like Assam, we need solutions that are affordable, simple, robust, reliable and flexible enough to work in hospitals, clinics and government health centres. Realising the need to foster and promote development of indigenous affordable medical technologies, SSUHS has taken initiatives to implement research in innovation bio-design. We wish to build capacity for innovative research, prototyping, validation and testing of medical technologies, in collaboration with IIT-Guwahati and ASTU.

The Aim is to identify, encourage research in innovation in medical technology.

The Objectives of Research in Bio-design Division, SSUHS are:

1. Medical colleges and engineering institutes to collaborate to promote innovation through multi-disciplinary approach
2. To provide hands-on-training to Bio-Design innovators for essential need identification, to develop affordable novel medical technologies focused on devices and diagnostics.
3. Form an effective network of biologists, engineers, clinicians, and medical technology persons for "design process" focusing on technology development;
4. Enhance industry participation for scale-up of technology transfer and commercialization.

KEY FEATURES:

1. Research topic priorities for Bio-Design:-
 - a. Relevance to Assam
 - b. New knowledge in model
 - c. Clinical usefulness for population / society
2. Topic should be on innovation of medical equipment / innovation only.
3. The Principal Investigator (PI) should be Faculty Member/ Student from any institution/college affiliated to SSUHS.
4. Co-PI should be from:-
 - Indian Institute of Technology (IIT), Guwahati.

- Assam Science and Technology University (ASTU), Guwahati.
 - All India Institute of Medical Sciences (AIIMS), **International School of Bio-Design**, New Delhi.
5. Funds upto Rs. 5,00,000/- (Rupees Five Lakhs) only for Faculty members and Rs. 20,000/- (Rupees Twenty Thousand) only for Under-Graduate/Post-Graduate students shall be granted depending on the standard of the research proposals, as decided by University Research Committee.
- ** Funding will include buying equipments and paying Scientists/Research Assistants/Statisticians, audit by Chartered Accountants etc. Institutional charges of 3% shall be applicable. Therefore, applicants are requested to prepare their budget accordingly with detailed break-up instalment-wise and with proper justification.*
6. Funds will be granted in instalments. Subsequent instalment of grants will only be released after receipt of Progress Report, Utilisation Certificate (UC)/Statement of Expenditure (SE), Vouchers etc. of previous grants by the University, submitted in original, duly authenticated by the Head of the Institution.
7. Period of Project shall be maximum 24 (twenty four) months from the date of release of funds (1st instalment).
8. Ethical Clearance has to be obtained, from the institution(s) affiliated to SSUHS where work will be done.
9. The application must be forwarded by the Head of the Department (HOD) and by Principal/Head /Director of the Institution, as per rules.
10. Application should be in SSUHS Format available in the SSUHS website www.ssuhs.in : Title, Hypothesis (where applicable), Aims, Objectives, Material & Methods with details of procedure (if any), Flowchart, Timeline, References in Vancouver style, Proforma of each case (where applicable), Consent Form in English and in Assamese.
11. Non-compliance of rules / funds, may lead to legal prosecution.

HOW TO APPLY:

Apply in prescribed format available at the University website, addressed to the Registrar (Academic), Srimanta Sankaradeva University of Health Sciences, Narakasur Hill-Top, Bhangagarh, Guwahati, Assam, **(two hard copies to be submitted)**.

Email (in MS-Word format) to research.ssuhs@gmail.com with copy to Registrar, SSUHS, at: ssuhs_assam@yahoo.in with all necessary supporting documents.

***Applications emailed to any other email address will be rejected.*

LAST DATE OF SUBMISSION:

The filled in Application Form should reach the University on or before **1st December, 2020**, during office hours.

Book for reference

Bio-design: The Process of Innovating Medical Technologies

By Stefanos Zenios, Josh Makower, Paul Yock, Todd J Brinton, Uday

N. Kumar, Lyn Denend, Thomas M. Krummel, Cambridge University Press, 2009

Operations, Information & Technology, Health Care

Recognize market opportunities, master the design process, and develop business acumen with this 'how-to'TM guide to medical technology innovation. A three-step, proven approach to the bio-design innovation process - identify, invent, implement - provides a practical formula for innovation. The experiences of hundreds of innovators and companies, in the form of case studies, quotes and practical advice, offer a realistic, action-orientated roadmap for successful bio-design innovation. Real-world examples, end-of-chapter projects, and Getting Started sections guide the reader through each of the key stages of the process and provide a template to create their own new medical devices. Addressing common medical, engineering, and business challenges to develop well-rounded expertise, this book is the complete package for any bio-design entrepreneur. The text is supported by valuable resources, including up-to-date industry changes.



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**PROFORMA FOR SUBMISSION OF RESEARCH PROJECT PROPOSALS ON
BIODESIGN**

1. Name of the Principal Investigator:
- Name of Co-Investigator:
2. Full address, Contact Number, Email
-
-
3. Designation:.....
4. College/Institution (Full address, Pin Code and contact details:
-
5. Name and designation of the Head of the Institution/College:.....
-
6. Project title:
-
-
7. Faculty:
8. Specific area of the project:
9. Duration, Years, Months:
10. Total cost (Rs.):
11. Is the project single or multiple-institutional or collaborative?
-
12. If the project is multi-institutional or collaborative, please furnish the following:
13. Name of project co-ordinator:
- i) Affiliation:
- ii) Address:
-
14. Project summary (not exceeding one page. Please use separate sheet)
15. (A) Details of Principal Investigator:
 - i) Name:
 - ii) Date of birth:
 - iii) Sex (M/F):
 - iv) Designation:
 - v) Department:
 - vi) Institution/college:
 - vii) Address with pin code:
 - viii) Telephone:..... Email:.....
 - ix) Ongoing research projects if any:

x) **EDUCATION:**

Sl No.	Institution/Place	Degree Awarded	Year	

xi) **POSITION/ HONORS/AWARDS/EXPERIENCE**

Sl No.	Institution/Place	Position	From (Date)	To (Date)	

xii) Experience and training relevant to the project:

.....

xiii) Publications: (details of publications in the last five years)

xiv) Books: Research Papers, Reports General articles:

.....

xv) Others (please specify):

.....

xvi) Details of ongoing and completed research projects in the last three years (Please attach separate sheet).

(B) Details of Co-investigator(s)

i) Name:.....

ii) Date of birth:.....

iii) Sex (M/F):.....

iv) Designation:

v) Department:.....

vi) Institution/college:.....

vii) Address with pin code:

.....

viii) Telephone:..... Email:

ix) Ongoing research projects if any

(Note: Please use separate page if necessary)

x) **EDUCATION:**

Sl No.	Institution/Place	Degree Awarded	Year	

xi) POSITION/ HONORS/AWARDS/EXPERIENCE

Sl No.	Institution/Place	Position	From (Date)	To (Date)

xii) Experience and training relevant to the project:

.....
.....
.....

xiii) Publications: (details of publications in the last five years) (Please attach)

xiv) Books:

Research Papers

General articles:

xv) Others (please specify):

.....

xvi) Details of ongoing and completed research projects in the last three years (Please attach separate sheet).

FORMAT FOR PROJECT PROTOCOL

1. Introduction (not to exceed 1000 words)
 - i. Title.
 - ii. Hypothesis.(Where applicable)
 - iii. Aims
 - iv. Objectives.
2. Review of Literature.
 - i. Current status of research and development in the subject (both international and national)
 - ii. Relevance and expected outcome of the proposed study.
 - iii. Preliminary work done if any.
3. Materials and Methods with details of procedure (if any).
 - i. Type of Study Design (should not exceed 1000 words)
 - ii. Statistical Methods.
4. Flow Chart.
5. Timelines:

Period of Study	Achievable Targets

6. References (in Vancouver style).
 7. Proforma of each case (where applicable).
 8. Consent form in English and in Assamese.
- ***Please attach extra sheets whenever necessary as Annexure and mention the Annexure number in the main Form.***
 - ***Only one project proposal shall be submitted.***
 - ***Two copies to be submitted in print.***

BUDGET PARTICULARS

Budget (in Rupees)

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

Sl. No.	Item	Quantity	1 st instalment	2 nd instalment	Total
Sub-total (A)					

B. Recurring

Consumables

Sl No	Item	Quantity	1 st instalment	2 nd instalment	Total
Sub-total (B)					

Grand Total (A+B) =

DECLARATION/CERTIFICATE

It is certified that

1. The work is not duplicate.
2. The same project has not been submitted elsewhere for financial support.
3. Ethical clearances have been taken for the work.
4. The principal investigator(s) have sufficient duration to carry out the project.
5. The details and information given in the project proposal are true and factual.

- i. Signature of the Head of the Institution
(Where work will be carried out) with date.
- ii. Signature of the Principal Investigator with date.
- iii. Signature of Co-investigator with date.