

## Advertisement for the Post of Technical Assistant in BIRAC-BIG project

Advertisement No.: TiSC/IB/02

Dated: 27.03.2023

Applications are invited for the post of **Technical assistant-01** in BIRAC-BIG project entitled "**Edible emulgel based novel, cost-effective formulation for colon targeted synbiotic-drug delivery**" at Technology Innovation and Start-up Centre (TiSC), Indian Institute of Technology Jodhpur, Rajasthan.

### Principal Investigator:

Dr. Indranil Banerjee (Associate Professor, BSBE, IIT Jodhpur)

### Project summary

Presently, no efficient delivery system is available in the market for colon specific dual delivery of synbiotic combination of prebiotic, probiotic and drug. The main challenges are to ensure long shelf life of the formulation, viability of the loaded probiotic, efficient delivery to the colon avoiding the harsh acidic environment of the stomach and co-delivery of synbiotic-drug combo with minimal drug-synbiotic interaction. Here, we have proposed a novel emul-gel based oral delivery system made with the combination of FDA approved edible oil, natural gum and gelator for colon-specific delivery of the synbiotic-drug. The work will involve (i) Preparation and optimization of the emul-gel formulation as per FSSAI guidelines (ii) Characterization of the gel formulation (iii) loading of probiotics in the gel formulation (iii) In-vitro viability studies of entrapped probiotics after exposure to simulated gastrointestinal fluid (iv) In-vitro and in-vivo stability and efficacy studies. We believe that the proposed formulation will help in the effective management of inflammatory bowel diseases and colon cancer.

### Job Description:

**Technical assistant** will be involved in the preparation of reagents, preparation and characterization of formulation, maintenance and characterization of probiotic cultures, data acquisition, documentations, maintenance of logbooks, monitoring of purchase procedures and other routine activities.

### Minimum Eligibility and Renumeration:

- i. M.Sc. in biochemistry, biotechnology, microbiology, life science or B.tech/M.Sc in food technology/ food sciences with percentage > 60% or CGPA > 8.5.
- ii. Age at the time of application  $\leq$  28 years.

Desirable: Experience in any of the following domains: microbial culture and analytical techniques, molecular biology, animal cell culture, preparation and characterization of nutraceuticals or food formulations.

Salary— Rs 25,000/- p.m. consolidated for a period of 12 months.

### Other service conditions—

- This appointment may be terminated by either party upon giving one month's notice by either side or the payment of one month's salary in lieu of this notice.
- The candidate must sign a non-disclosure agreement regarding the work done or results generated from the project and must not publish/present any work conducted during the tenure of the project without prior consent of the PI.

Interested candidates are requested to send their resume via email: *ibproject.tisc@gmail.com*

Application Deadline: **07.04.2023**

Shortlisted candidates would be intimated about the date, time and mode of interview via email by **16.04.2023**