भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

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"Project Scientist-I" on "Stem Cell Engineering (iPSC) and Organoid Research"
Department of Biomedical Engineering, IIT Hyderabad

This ICMR-funded project focuses on developing advanced, **human-relevant in vitro models using induced pluripotent stem cells (iPSCs) and brain organoids for next-generation drug screening**. The research aims to engineer physiologically relevant neural tissue models that mimic human brain microarchitecture and disease conditions. These platforms will be utilised to study neurotoxicity, drug efficacy, and personalised therapeutic responses. The project integrates stem cell biology, biomaterials, and bioengineering approaches to enhance translational outcomes. Special emphasis will be given to scalable organoid production and functional characterization. The outcomes are expected to help reduce reliance on animal models and accelerate drug discovery pipelines. This is a highly interdisciplinary project involving cutting-edge techniques in regenerative medicine and neuroengineering.

Essential Qualifications and Work Experience: PhD in Biotechnology, Microbiology, Nanobiotechnology, Bioengineering, Nanotechnology, any other related interdisciplinary engineering and/or science, from a reputed institute with substantial sound knowledge and experience in molecular biology techniques and a publication record from PhD work and related work.

- **Human stem cell culture (preferably iPSC)**
- **3D cell culture / organoid development (preferred but not mandatory)**
- **Cell differentiation and molecular biology techniques**
- **Experience on cell culture, primary cell (e.g., stem cells) culture, and materials-stem cell/cell interaction studies**
- **Experience on Stem Cells culture and maintenance preferred**
- **Sound knowledge and proficient in molecular biological techniques such as quantitative PCR, RTPCR, ELISA, Western Blotting and immunoassay, etc.**
- **Proficient in designing and executing experiments, interpretation of research results, writing reports and manuscripts, and managing and guiding PhD/JRF/SRF candidates**

Duration of project: Up to 3 years. The initial appointment will be for 6-11 months. Based on performance, the appointment could be extended till the end of the project.

Emoluments: INR 56,000 per month + (No HRA as Candidate expected to stay in Hostel), with a possible increment in the 3rd Year based on performance.

How to Apply: Eligible candidates should apply with their CV via email to **enarm@bme.iith.ac.in by 30th April, 2026, with the subject marked as "Project Scientist-I" on "Stem Cell Engineering (iPSC) and Organoid Research". The application will be accepted till a suitable candidate is found**. Candidates who are short-listed for the interview based on merit and experience will be informed via email.

Preference: This will be given to candidates with sufficient experience in the above-mentioned field and a commitment to working on the project for **at least 1.5 years**.