

## Junior Research Fellowship (JRF) position at Regenerative medicine & stem cell (RMS) Lab, Dept. of Biomedical Engineering, IIT Hyderabad

**Title 1: 3D-printed organ-on-chip for precision oncology for Ca lungs: drug sensitivity with cancer organoids and drug toxicity by IPSC-derived liver and cardiac organoids**

**Title 2: Development of 3D printable antimicrobial composite hydrogels with metal-binding peptides for anti-inflammatory effects and bone tissue engineering.**

Organ-on-chip is a technique used to fabricate organs in micrometer range in a microfluidic device in lab. We are currently using primary human stem cells and cancer cells to fabricate osteochondral, pancreatic, cartilage tissue or cancer organoids for drug testing and therapeutic applications using bioengineering strategies. Details in webpage: <https://people.iith.ac.in/subharath/publications.html>

Applications are invited from talented, motivated candidates for the research projects in the Department of Biomedical Engineering of the Indian Institute of Technology Hyderabad (IITH) with collaboration with BARC, Mumbai. As the projects are inter-disciplinary strong experience in one part of the project is encouraged to apply who can learn the other complementary skills with time.

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| 1. | Name of the post             | Junior Research Fellow (JRF)<br>(can be converted to PhD as per performance)                                                                                                                                                                                                                                                                                                |
| 2. | Number of Posts              | (One for 3 years) and (Two for 5 months)                                                                                                                                                                                                                                                                                                                                    |
| 3. | Name of the Research Project | <b>3D-printed organ-on-chip for precision oncology for Ca lungs: drug sensitivity with cancer organoids and drug toxicity by IPSC-derived liver and cardiac organoids (ANRF) OR,</b><br><b>Development of 3D printable antimicrobial composite hydrogels with metal-binding peptides for anti-inflammatory effects and bone tissue engineering (BRNS)-only for 5 months</b> |
| 4. | Funding Agency               | ANRF or BRNS                                                                                                                                                                                                                                                                                                                                                                |
| 4. | Duration of the Position     | <b>One year extendible further as per grants.</b>                                                                                                                                                                                                                                                                                                                           |
| 5. | Consolidated monthly stipend | <b>JRF amount +HRA</b>                                                                                                                                                                                                                                                                                                                                                      |

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| 6.  | Essential Qualifications | M. Tech (Biomedical Engineering, Materials Science, Biotechnology, Chemical engineering, Mechanical Engineering or equivalent Biosciences degrees) with 60% marks or equivalent CGPA.<br>M. Sc. (Biotechnology, Life sciences or equivalent courses like M. Pharma.) with fellowships or 1 year of research experience. Students with their own fellowships <b>DBT/DST-INSPIRE/ICMR/CSIR/UGC</b> are encouraged to apply especially for 5 months project to feel the IITH environment before joining for PhD in their own fellowship. Not from this grant. |
| 8.  | Preferred skill set      | <b>Knowledge of organoid culture (for 3 years), 3D spheroid culture or microbiology experience (for 5 months) with cell culture are encouraged to apply.</b>                                                                                                                                                                                                                                                                                                                                                                                               |
| 9.  | Age                      | Not more than 32 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10. | <b>Application</b>       | Apply via Google forms with uploading CV there:<br><a href="https://forms.gle/iTdh1ohStkfe27m49">https://forms.gle/iTdh1ohStkfe27m49</a><br><br>Fill the form before 12 noon, <b>August 15<sup>th</sup>, 2026.</b>                                                                                                                                                                                                                                                                                                                                         |
| 11. | Any other queries        | Contact the PI by email below with subject heading “ <b>QUERY</b> ”.<br>Name: Dr. Subha Narayan Rath<br>Address: Professor<br>Dept. of biomedical Engineering<br>Indian Institute of Technology Hyderabad<br>TS-502284, India.<br>E-mail: <a href="mailto:rmslab.iith@gmail.com">rmslab.iith@gmail.com</a>                                                                                                                                                                                                                                                 |
| 12. | Shortlisted candidates   | <b>ONLY</b> , the short listed candidates for the interview based on merit will only be informed via email by 4pm, <b>August 17<sup>th</sup>, 2026.</b>                                                                                                                                                                                                                                                                                                                                                                                                    |
| 13. | Interview date           | By online mode on <b>August 18<sup>th</sup> or 21<sup>st</sup>, 2026 afternoon</b> . As it's for two persons, no communication or query will be entertained who are not going to next stage of interview!!                                                                                                                                                                                                                                                                                                                                                 |