

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

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

3D bio-printing is a technique used to fabricate tissues in lab. We are currently using primary human stem cells to fabricate bone or cartilage organoids for drug testing and therapeutic applications using bioengineering strategies. Details in webpage: <u>https://tinyurl.com/22224q5y</u>.

Applications are invited from interested and motivated candidates for the position of JRF on temporary basis. Department of Biomedical Engineering of the Indian Institute of Technology Hyderabad (IITH) in collaboration with Materials Science and Metallurgical Engineering (MSME) dept. of IIT Hyderabad. As the projects are interdisciplinary strong experience in one part of the project is encouraged to apply who can learn the other complementary skills with time.

1.	Name of the post	Junior Research Fellow (JRF)
	1	(can be converted to PhD as per performance)
2.	Number of Posts	One/ Two
3.	Name of TWO Research Projects	<ol> <li>Lipo-polymeric Nanodrug-delivery system in a defect specific 3D Printed Cartilage: An in vivo analysis in osteoarthritis Rat model(ICMR)</li> <li>Development of 3D printable antimicrobial composite hydrogels with metal-binding peptides for anti-inflammatory effects and bone tissue engineering(BRNS)</li> </ol>
4.	Funding Agency	ICMR/BRNS
4.	Duration of the Position	One year extendible further as per grants.
5.	Consolidated monthly stipend	Rs. 31,000/- per month
6.	Essential Qualifications	M. Tech (Biomedical Engineering, Materials Science, Biotechnology, Chemical engineering, Mechanical

		<ul> <li>Engineering or equivalent Biosciences degrees) with 60% marks or equivalent CGPA.</li> <li>M. Sc. (Biotechnology, Life sciences or equivalent courses like M. Pharma.) with fellowships or 1 year of research experience.</li> <li>Students with their own fellowships DBT/DST-</li> </ul>
		<b>INSPIRE/ICMR/CSIR/UGC</b> are encouraged to apply.
8.	Preferred skill set	Knowledge of 3D printing or stem cell culture or
		diabetes-related works are encouraged to apply.
9.	Age	Not more than 30 years (Subjected to discussion as per
	8	research experience and publication records)
10.	Application	Apply via Google forms with uploading CV there:
100	- pp	https://forms.gle/UiWX8Y4CpxwWcfGE8
		Fill the form before <b>July 11th</b> , <b>2023</b> .
11.	Any other queries	Contact the PI by email below with subject heading "QUERY".
		Name: Dr. Subha Narayan Rath
		Address: Professor
		Dept. of biomedical Engineering Indian Institute of Technology Hyderabad TS-502284, India.
		E-mail: <u>rmslab.iith@gmail.com</u>
12.	Shortlisted candidates	Only short listed candidates for the interview will be
		informed via email on July 14 <sup>th</sup> , 2023.
13.	Interview date	By online mode on July 17 <sup>th</sup> or 18 <sup>th</sup> , 2023.