



Ref: ME/2021/CRG SERB

Date: 23rd February 2021

JRF Recruitment in SERB Sponsored Project (CRG/2020/003247)

Applications are invited from eligible candidates to work as a Junior Research Fellow (JRF) in a SERB Department of Science and Technology (DST) sponsored project at Mechanical Engineering Department, BITS-Pilani, (Pilani campus) in collaboration with Department of Biological Sciences, Rajasthan. The details are as follows:

Project Title	“Neuronal” regulation of tumor cell migration- understanding the role of semaphorins in tumor cells undergoing EMT and subjected to differential flow dynamics
Project Duration	3 years
Principal Investigator (PI)	Dr. Venkatesh Kadbur Prabhakar Rao
Project Description	In this study, with expertise of engineering discipline, we shall initially design blood vessels and simulate differential flow. Thereafter tumor cells shall be subjected through the microfluidic channels and their electro-mechanical alterations shall be analyzed. The functional contribution of selected axon guidance molecules in imparting physico-mechanical adaptability and facilitating migration and survival shall be explored. Through knock in or knock out of specific molecules their role in mechanical stress sustenance and survival shall be confirmed. We expect that establishing these comprehensive connections can provide a powerful platform for development of novel cancer therapeutics as well as diagnostics.
Fellowship	Rs. 31,000/- per month for 2 years and Rs. 35,000/- per month in 3 rd year.
Essential Qualifications	M.E./M.Tech/M.Sc with at least 60% marks in Biotechnology, Biomedical Engineering, Mechanical Engineering or Allied Discipline.
Desirable Qualification:	UGC/ CSIR NET Qualified, good knowledge of Biomedical Engineering, Oncology and a strong desire to work in interdisciplinary subjects.

Application Procedure:

- Candidates should email bio-data to the PI (venkateshkp.rao@pilani.bits-pilani.ac.in) by **20th March 2021 (with the following information- Name; Address; Educational Qualifications, NET/Gate/Fellowship if any, Research experience, if any)**.
- Shortlisted candidates will be informed through email and called for interview either online or to be held at Mechanical Engineering Department, BITS-Pilani, (Pilani Campus), Rajasthan.

Notes:

1. For any queries regarding the position, please feel free to email the PI.
2. The position mentioned is temporary and for the period of duration of the project (3 years).
3. Selected candidate will be encouraged to join the Ph.D. program of BITS-Pilani as per institute rules.
4. If performance of candidate is found unsatisfactory, the position can be terminated with 1-month notice.
5. No TA/DA will be paid for attending the interview.

Dr. Venkatesh Kadbur Prabhakar Rao (PI)

