

## One Junior Research Fellow Position

Position available	One Junior Research Fellow (JRF) under the following research project funded by the Science and Engineering Research Board (SERB), Department of Science and Technology (DST), Government of India.
Title of the project	“Molecular Mechanisms of Kinesin-3 Autoregulation and Their Biophysical Measurements”
Principal Investigator	Dr. Virupakshi Soppina
Location	Indian Institute of Technology Gandhinagar
Discipline	Biological Engineering
Duration	Initial appointment for one year, extendable one more year based on performance
Email application material to	<a href="mailto:vsoppina@iitgn.ac.in">vsoppina@iitgn.ac.in</a> (single PDF file please)
Minimum eligibility	First class M.Sc. or M.Tech degree in any discipline of Life Science from a recognized University/Institute. Candidate should have valid CSIR NET / UGC or GATE or equivalent fellowship. An aptitude for learning new techniques is a must.
Application deadline	<b>18<sup>th</sup> March 2018</b>
Broad area	Intracellular transport system and their regulations
Research Description:	<p>Our lab is interested in understanding the cytoskeletal systems and their roles in intracellular trafficking in mammalian cells. Molecular motors of the kinesin and dynein families are mechanochemical enzymes that convert the chemical energy derived from ATP hydrolysis to mechanical energy to generate force and motion along microtubule tracks to carry cargoes (e.g. proteins, mRNA, vesicles, endosomes) towards the plus (kinesins) and minus ends (dyneins) of the microtubules, a process termed "intracellular transport".</p> <p>My research at IITGN is focused on major cellular and neuronal transporter of kinesin-3 family motors. In particular, I am passionately interested in understanding the molecular mechanisms of kinesin-3 based neuronal cargo trafficking, regulation and their physiological significance. The mammalian kinesin-3 family is one of the largest of the kinesin superfamily and consists of five subfamilies. Kinesin-3 motors have been found to play important roles across species in intracellular and neuronal transport, development, cell signaling, and cytokinesis. Defects in kinesin-3 transport have been implicated in diverse genetic, developmental, neurodegenerative and cancer diseases. Despite their widespread functions and clinical importance, the mechanisms of kinesin-3 mediated intracellular transport, regulations and their deficiencies in the context of human diseases are largely unknown.</p>

Interested candidates may please send a CV and one page write-up of your research interest in general and/or specific to our lab to Dr. Virupakshi Soppina ([vsoppina@iitgn.ac.in](mailto:vsoppina@iitgn.ac.in)). Any kind of queries related to this position may be directed to Dr. Virupakshi Soppina ([vsoppina@iitgn.ac.in](mailto:vsoppina@iitgn.ac.in)).