

PMRF-ISSS Teaching Programme

Prime Minister Research Fellowship students' teaching requirement facilitated by the Institute of Smart Structures and Systems



Module PMRF-ISSS020

INTRODUCTION TO THE BIOLOGICAL CELL

Name of the PMRF student

Mitali Shah PhD Candidate at the Indian Institute of Science, Bengaluru

Course relevant to:

Undergraduate and Postgraduate students in Biology, Biotechnology, and Engineering who are interested in learning Cell Biology. Students must have a basic understanding of biomolecules.



Details of the content of the module

Through this course we will explore the biological cell in-depth, to learn about the various processes that bring about order and organisation in the cell. This course will enable students to think at the molecular scale in biology, which is crucial to understanding the onset of various disease states. Accordingly, we will cover a module on cell biology from the perspective of infectious diseases. Each lecture will be accompanied with a discussion on relevant techniques scientists deploy to study the cell. We will conclude with a module on microscopy, which will include a brief introduction to the current exciting advancements in superresolution microscopy.

- Cells and their Structure
- Intracellular compartments and protein sorting
- > Intracellular organisation and the cytoskeleton
- > The cell cycle and cell death
- ➤ An infectious disease perspective on cell biology
- > History and current advancements in microscopy

Schedule of the module

Start Date: 4th Oct, 2021

End Date: 27th Dec, 2021

Timings: Every Monday, 6:00-7:30 PM IST

Meeting link:

https://tinyurl.com/4ft9mazz

Contact email ID: isss.forum@gmail.com

Registration link:

https://forms.gle/KvBWfciGKDhrsqGi7