



Systems Biology For Drug Discovery and Personalized Medicine

July 2nd to 14th July 2018, School of Life Sciences, University of Hyderabad, Hyderabad

The course is designed to introduce the students to the tremendous potential of Systems Biology in not only understanding basic biology but also to contribute to drug discovery and personalized medicine. This course will provide a glimpse of the potential of System Biology approach to understand physiology at multiple architectural levels including metabolite and molecular interactions, genetic and gene-protein interactions, cellular pathways and networks. The tutorials and discussions will examine the application of these concepts to drug discovery and personalized medicine.

Topics to be discussed

(All topics will have lectures and tutorials including hands-on training)

- Principles of Biological interaction
- DNA-protein interaction
- Small signaling networks
- Protein-protein interaction
- Genetic interactions and their interpretation
- Metabolic pathways and flux balance analysis
- Integration of interaction data and its power
- Inference of interaction data
- Interaction networks—dynamics
- Interaction networks—topological considerations
- Bridging single molecule studies with systems of networks

Interested candidates must login at GIAN-MHRD website (<http://www.gian.iitkgp.ac.in>) to fill application. Please submit your detailed resume and a statement on why you want to take this course and how you think this will benefit you.

For any further queries contact:
sysbiolgian@gmail.com

Course instructors

Prof. Animesh Ray, Keck Graduate Institute, USA.

Prof. Shekar Mande, National Centre for Cell Science, Pune, India

Dr. Debashis Barik, School of Chemistry, University of Hyderabad

Fee structure and other payments

Registration fee includes Course material, accommodation, food, transport within University for the duration of stay for the course. Shared accommodation for 15 nights from 1st July to 15th July, 2018 within University Campus will be provided. Travel expenses will NOT be covered. Dinners will NOT be covered for those opting to register without accommodation.

For Students/Research Scholars:

With accommodation: Rs. 7000

Without accommodation: Rs. 2000

For Faculty: Rs. 10,000 with accommodation

For participants from Industry: Rs. 15,000 with accommodation

Registrations should be completed by **10th May**. Selected candidates will be informed by **15th May**. Payment details will be communicated to the selected candidates and payment should be completed by **June 5th, 2018**