

Hands-on course on **Phase Separation in Genome Organization (PSiGO)**

Students will be introduced to the emerging area of biological phase-separation in the context of asking questions about genome regulation. This 12-day course will involve “hands-on” lab modules throughout the day with defined breaks for white board based discussions and didactic lectures.

The lab modules are expected to be entail well-characterized systems, such as the heterochromatin protein HP1. The experimental approaches we expect to cover are:

- (i) Visualization and quantification of phase-separated droplets using light and fluorescence microscopy
- (ii) Quantification of phase-separation properties using spin down assays
- (iii) Investigating the material properties of phase-separated states.

The theory and literature that we expect to cover includes:

- (i) Basics of chromatin biophysics
- (ii) Enzymes and regulators that act on chromatin
- (iii) Physical and chemical principles underlying biological phase-separation
- (iv) Conceptualizing models for regulating phase-separation in biology
- (v) Comparison of the phase-separation potential within eukaryotic vs prokaryotic genome regulators

Course Faculty

Prof. Geeta Narlikar (UCSF)
Prof. Sanjeev Galande (IISER Pune)
Dr. Kundan Sengupta (IISER Pune)
Dr. Krishanpal Karmodiya (IISER Pune)

Who can Apply ?

This Course is open to graduate students, postdoctoral fellows, and early career faculty members.

How to Apply ?

To apply, please send a letter of recommendation from your advisor or senior mentor/head of the Department (in the case of early career faculty), your CV and a one-page statement describing why the course would be beneficial for your research work. Since this is a hands-on course, we anticipate taking a maximum of 16 students.

Candidates should send the application and letters of recommendation (directly by the mentors) by email to bio_app@iiserpune.ac.in (convert into PDF Format) on or before the deadline. Please mention “Application for PSiGO” in the subject line of the e-mail.

Deadline to Apply

June 10, 2019

Selected Participants will be notified by June 15, 2019

Registration fees: Students and postdocs: Rs. 8000

Faculty members: Rs 15000

July 22-
August 02,
2019

Venue:
IISER Pune