



Module PMRF-ISSS046/III/2025

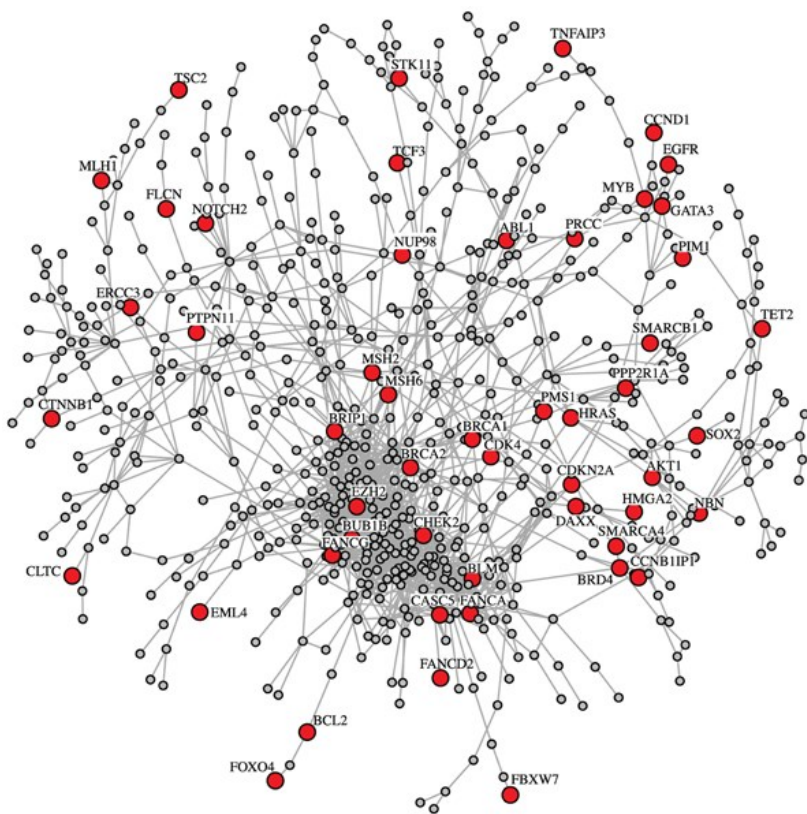
Gene regulatory network modelling of cancer biology

Name of the PMRF student

Sarthak Sahoo

Required background of the students taught

Basic Biology
Ordinary Differential Equations
Familiarity with biological data
Coding in python/R



Details of the content of the module

Logic of Gene regulatory networks
in cancer biology

Phenotypic plasticity due to gene
regulatory network interactions

Differential equations to model
gene regulation in cancer

Implications of heterogeneity and
plasticity in cell populations.

Historical use of mathematical
models to study phenomenon in
cancer biology

Data analysis to support
mathematical biology predictions.

Schedule of the module

tentative start Date: 29th April 2025

Timings: Monday, Wednesday and Friday 6:00
pm to 8:00 pm (Lectures will be uploaded)

Discussion/Tutorial sessions as required

Meeting link : Will be shared later

Contact email ID: issf.forum@gmail.com

Registration link:
<https://forms.gle/7azKPFaB28UjPhrE6>