



Module PMRF-ISSS035/2023

# Introduction to Genetics and Epigenetics

Name of the PMRF student

Harshada Jadhav

Required background of the students taught

Basic Biology

Details of the content of the module

## GENETICS:

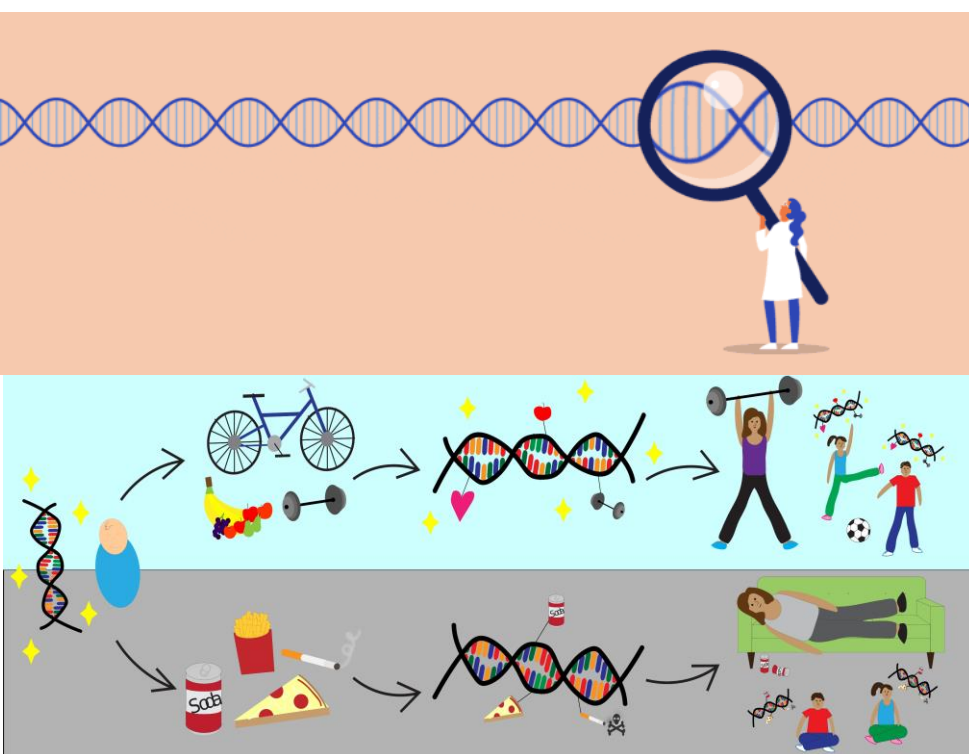
Mendelian Inheritance, Concept of a gene, Extension of mendelian principles, Gene mapping methods, Extra chromosomal inheritance, Microbial genetics, Human genetics, Quantitative genetics, Mutations, Structural and Numerical alteration of chromosomes, Recombination

## EPIGENETICS:

Overview, DNA methylation, Chromatin structure, Histone variants, Histone Modification, Germ chromatin, Chromatin evolution, RNAi Heterochromatin, Dosage compensation, Genomic Imprinting, Stem cells, Epigenetic and diseases

## NATURE OF THE MODULE:

- Lectures
- Problem-solving
- Discussions on landmark research papers in the field



Schedule of the module

Start date: 25<sup>th</sup> September 2023

End date: 29<sup>th</sup> October 2023

Timings: 6:00- 7:30 pm (everyday)

Sessions on problem- solving and discussion on research papers will be held on weekends.

Meeting link : Will be shared later

[Link](#)

Contact email ID: [issforum@gmail.com](mailto:issforum@gmail.com)

Registration link:

<https://forms.gle/nrngJBg8Z5tvZWSn8>