

LS 592A Advances in Epigenetics and Gene Regulation 2 Credits

Name of the faculty: Prof. K. Natarajan; Prof. S. Chakraborty; Prof. Ashis Nandi; Prof. P.K. Verma; Prof. Ananda Sarkar; Prof. R. Muthuswami; Prof. Nirala Ramchiary; Dr. Bhupendra Chaudhary; Dr. Amarjeet Singh

	Topic	
1.	<p>This is a research paper-based course offered as a compulsory course for MSc Life Sciences students opting for Epigenetics and Gene Regulation as specialization or as an optional course for students of MSc Life Sciences without specialization.</p> <p>Epigenetic regulation of gene expression invokes several modes of gene expression control involving chromatin modification, chromatin remodeling, DNA methylation, small RNA and long non-coding RNAs as critical for the epigenetic phenomenon. Nuclear compartmentalization and phase separation have gained importance as modes of gene expression control. The syllabus of the course would be on topics related to various epigenetic mechanisms and their impact on gene regulation in animals (humans) and plants. Research articles from fundamental to contemporary ground-breaking developments would be covered during the course, and is designed to impart a range of skills including critical thinking, analysis, problem solving, critique writing and learn about research manuscript reading, writing and different aspects of publication.</p>	As listed above

Further Reading:

1. Research paper/s would be provided by the participating teachers