

Dept of Zoology: IIIrd Semester: Specializations-Cytology and cytogenetics

Assignments: M.Sc.-IVth January 2024- June-2024

Instructions for assignments

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- Mark of Each Assignment: 5 (Deduction of Marks: 1 mark deducted for Late Submission and 1 for late personation.)
- Upload your assignments and project before the due date on google <https://classroom.google.com/c/NjYxNTM2NDQyNDky?cjc=asqhowh> (Class code- asqhowh)
- Presentation mode (online/offline) will be updated before the presentation date depending upon the situation.
- Submit your project title up to 29 Feb 2024 to Dr. Prof D.C. Sharma, He will allot the Project supervisor
- The teacher will revert your evaluated assignments and internals by email, you can check and raise your point of view (if any) within one week, and after that marks will be uploaded.
- Tentative date of internals: March 2024 and April 2024
- All student presentations were recorded online and uploaded on the Zoology Department YouTube account. Make a video of your assignments and upload it on the Zoology Department YouTube account with the help of Miss. Sumbul Zehra and Miss Himanshi

Class Roll No	Course XIII D : H-4062-Advanced cell biology				Course XIV D : H-4063-Chromosome and Genomic organization				Course XV D : H-4064-Genomic analysis, Immunogenetics				Course XVI D : H-4065-Human and Microbial cytogenetics and Molecular biology			
	Assignment & Presentation				Assignment & Presentation				Assignment & Presentation				Assignment & Presentation			
	Evaluator→ Mrs. Neetu Singh				Mr. Abhisek Jaiswal				Prof. Dinesh C. Sharma				Prof. Dinesh C. Sharma			
	T. Associate Miss Himanshi, NET-JRF				Miss Himanshi, NET-JRF				Miss Himanshi, NET-JRF				Miss. Sumbul Zehra, NET-JRF			
	Name of student	Topic	Submission Last date	Presentation last Date	Topic	Submission Last date	Presentation last Date	Topic	Submission Last date	Presentation last Date	Topic	Submission Last date	Presentation last Date			
1	AKANSHA TYAGI	Circadian rhythms in cells	12 Feb 24	16 Feb 24	Nucleosome and solenoid model, nuclear scaffold	29 Feb 24	8 Feb 24	C-value paradox	05 Mar 24	16 Mar 24	Molecular anatomy of eukaryotic chromosomes	19 Mar 24	30 Mar 24			
2	AKHU NAGAR	Membrane transport	12 Feb 24	16 Feb 24	Molecular structure of telomeres	29 Feb 24	8 Feb 24	Organization of genes in organelle genomes	05 Mar 24	16 Mar 24	Metaphase chromosome, centromere, kinetochore, telomere and its maintenance	19 Mar 24	30 Mar 24			
3	AKSHITA MALIK	Transmembrane proteins and receptors	12 Feb 24	16 Feb 24	Reassociation kinetics and “Cot” curves	29 Feb 24	8 Feb 24	Southern and fluorescence in situ hybridization for genome analysis	05 Mar 24	16 Mar 24	Heterokaryon-selecting hybrids and chromosome segregation	19 Mar 24	30 Mar 24			
4	ANKITA	Cell to cell communication and its importance	12 Feb 24	16 Feb 24	Kinetochore and centromere	29 Feb 24	8 Feb 24	Transposable elements in prokaryotes and eukaryotes	05 Mar 24	16 Mar 24	Techniques in human chromosome analysis-molecular cytogenetics approach	19 Mar 24	30 Mar 24			
5	ANUSHKA	Signal transduction pathways	12 Feb 24	16 Feb 24	Sat-DNA (including in-situ hybridization)	29 Feb 24	8 Feb 24	Genome analysis OF Microbial genomes, <i>Drosophila</i> and yeast	05 Mar 24	16 Mar 24	Numerical and structural abnormalities of human chromosome	19 Mar 24	30 Mar 24			
6	ANUSHKA SHARMA	Cell adhesion and cell functions	12 Feb 24	16 Feb 24	Molecular structure of euchromatin and heterochromatin	29 Feb 24	8 Feb 24	Automated Karyotyping	05 Mar 24	16 Mar 24	Bacterial transformation, transduction, conjugation, bacterial chromosome	19 Mar 24	30 Mar 24			

7	HIMANSHI CHAUHAN	XXXXXXX			XXXXXXX			XXXXXXX			XXXXXXX		
8	JYOTI	Hierarchy in organization of cells	12 Feb 24	16 Feb 24	Molecular structure of an eukaryotic gene	29 Feb 24	8 Feb 24	Construction of a restriction map	05 Mar 24	16 Mar 24	Bacteriophage: Types, structure and morphology of T4phage, morphogenesis	19 Mar 24	30 Mar 24
9	KOMAL NAGAR	Prokaryotic genome	12 Feb 24	16 Feb 24	Concept of totipotency vis-a-genome constancy	29 Feb 24	8 Feb 24	Restriction fragment length polymorphism	05 Mar 24	16 Mar 24	Cytogenetic effects of ionizing and non-ionizing radiation	19 Mar 24	30 Mar 24
10	MONIKA GAUTAM	Eukaryotic genome	12 Feb 24	16 Feb 24	Amphibians: Serial nuclear transplants	29 Feb 24	8 Feb 24	Choice of mapping population: Simple sequence repeat loci	05 Mar 24	16 Mar 24	Genetics of cell cycle and cyclin independent kinases	19 Mar 24	30 Mar 24
11	RAINU	Regulation of gene expression	12 Feb 24	16 Feb 24	Developmental-significance of fluctuations in genomic DNA content	29 Feb 24	8 Feb 24	Molecular analysis of genomic DNA in yeast or any other eukaryote	05 Mar 24	16 Mar 24	DNA synthesis	19 Mar 24	30 Mar 24
12	RITIKA VEDI	Flow cytometry	12 Feb 24	16 Feb 24	. Chromosomal organization of genes and non-coding DNA	29 Feb 24	8 Feb 24	Molecular markers in genome analysis	05 Mar 24	16 Mar 24	DNA replication in prokaryotic and eukaryotic cell	19 Mar 24	30 Mar 24
13	SALONI TYAGI	Ageing in cells	12 Feb 24	16 Feb 24	Mobile DNA	29 Feb 24	8 Feb 24	Molecular markers linked to disease genes	05 Mar 24	16 Mar 24	DNA damage and repair	19 Mar 24	30 Mar 24
14	SHAILLY KHARI	Necrosis and apoptosis	12 Feb 24	16 Feb 24	Morphological and functional elements of eukaryotic chromosomes	29 Feb 24	8 Feb 24	Applications of RFLP in forensics, disease diagnosis, genetic counseling, germplasm maintenance and toxinomy	05 Mar 24	16 Mar 24	Transcription in prokaryotic and eukaryotic cell	19 Mar 24	30 Mar 24
15	SONIKA PANDEY	Tag polymerase production by <i>Thermus aquaticus</i>	12 Feb 24	16 Feb 24	Genetic regulation of cell division in eukaryotes	29 Feb 24	8 Feb 24	Immunglobulin gene structure	05 Mar 24	16 Mar 24	RNA & DNA polymorphisms	19 Mar 24	30 Mar 24
16	SONIYA BHATI	Cytology of flora and fauna of thermophilic areas	12 Feb 24	16 Feb 24	Molecular basis of cellular check points	29 Feb 24	8 Feb 24	Multigene organization of Ig genes	05 Mar 24	16 Mar 24	Regulation of gene expression in prokaryotes	19 Mar 24	30 Mar 24
17	SRISHTI SINGH	Cloning	12 Feb 24	16 Feb 24	Oncogenes and tumour suppressor genes.	29 Feb 24	8 Feb 24	Mechanisms of DNA rearrangements and generation of antibody diversit	05 Mar 24	16 Mar 24	Regulation of gene expression in eukaryotes	19 Mar 24	30 Mar 24
18	SURUCHI NAGAR	XXXXXXX			XXXXXXX			XXXXXXX			XXXXXXX		
19	TANNU SINGH	DNA sequencing	12 Feb 24	16 Feb 24	Conversion of proto-oncogenes into oncogenes	29 Feb 24	8 Feb 24	DNA rearrangements and expression of T-cell receptors	05 Mar 24	16 Mar 24	The translation machinery in prokaryotes	19 Mar 24	30 Mar 24
20	TANU	FISH, GISH	12 Feb 24	16 Feb 24	Genetic imprinting	29 Feb 24	8 Feb 24	Genetic screening	05 Mar 24	16 Mar 24	The translation machinery in eukaryotes	19 Mar 24	30 Mar 24
21	FWINKAL SHARMA	XXXXXXX			XXXXXXX			XXXXXXX			XXXXXXX		
22	VAISHALI SHARMA	RFLP in forensic, disease diagnosis	12 Feb 24	16 Feb 24	Dosage compensation in organisms	29 Feb 24	8 Feb 24	History and methods of genetic counseling	05 Mar 24	16 Mar 24	Post transcriptional modification in polypeptide	19 Mar 24	30 Mar 24

Prof. (Dr.) Divya Nath
Principal

Prof. (Dr.) Dinesh C. Sharma
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