

Hands-on Workshop on Basic Techniques in Molecular Biology and Animal Tissue Culture

21-27 December, 2023

Venue: BKL Walawalkar Rural Medical College, Sawarde, Ratnagiri

Day 1 Thursday 21 December 2023	
08.30-09.15	Breakfast
09.30 – 10.00	About the workshop – Dr. Rita Mulherkar, Convener, Workshop - Pre-test
10.00 - 10.30	Good Laboratory Practice (GLP) – Neelam Shirsat - Lecture 1
10.30 – 11.00	Introduction to Nucleic Acids – Neelam Shirsat - Lecture 2
11.00-11.15	Tea
11.15-12.30	Lab exercise – Preparing Molar solutions and use of micropipettes
12.30 – 13.30	Lunch
13.30- 17.00	Lab exercise - DNA isolation from blood buffy coat
17.00-17.30	Development of form and shape in animals: Stories of two Nobel prizes– Surendra Ghaskadbi – Lecture 3
Day 2 Friday 22 December 2023	
08.30 – 09.15	Breakfast
09.30 – 10.00	Polymerase Chain Reaction – Neelam Shirsat - Lecture 4
10.00 – 11.30	Practical on setting up PCR, RE digestion and Agarose gel electrophoresis
11.30 – 11.45	Tea
11.45 - 13.00	Lecture on RNA and practical on RNA isolation – Neelam Shirsat - Lecture 5
13.00 – 13.30	Lunch
13.30 – 17.30	Practical - RNA isolation from cells in culture or tissue
17.30-18.00	Recombinant DNA Technology – Part I- Saroj Ghaskadbi - Lecture 6
Day 3 Saturday 23 December 2023	
08.30 – 09.15	Breakfast
09.30 – 10.15	Inauguration Welcome – Dr. Suvarna Patil , Medical Director, BKL Walawalkar Hospital Felicitation of Dignitaries and invited faculty Welcome - Dr. Amit Nasa , Secretary, Sun Pharma Science Foundation Vote of thanks – Dr. Rita Mulherkar , GC Member, SPSF
10.15 – 10.30	Tea
10.30 – 11.00	Application of qPCR – Dr. Shelke/Dr. Nakhate - Lecture 7
11.00-11.30	Sequencing and Microarray – Rita Mulherkar - Lecture 8
11.30 – 13.30	Practical - cDNA synthesis and qPCR

13.30-14.15	Lunch
14.30 – 17.00	Practical - qPCR continued
17.00-18.00	Recombinant DNA Technology – Saroj Ghaskadbi Part II and III- Lecture 9 and 10
Day 4 Sunday 24 December 2023	
08.30 – 09.15	Breakfast
09.30 – 10.00	Flow Cytometry and its application – Nishigandha Naik - Lecture 11
10.00 – 10.30	Proteins and protein purification methods – Rohit Bhat - Lecture 12
10:30 – 11.00	Tea
11.00 – 14.00	Practical – Protein estimation and SDS-PAGE
14.00 - 14.30	Lunch
14.30 – 17.30	Practical – Silver staining and Western blotting
Day 6 Tuesday 26 December 2023	
08.30 – 09.15	Breakfast
09.30 – 10.30	Practical - Western blotting and staining of blot (continued)
10.30 – 11.00	Introduction to Animal Tissue Culture – Rita Mulherkar - Lecture 13
11.00-11.30	Video on setting up primary disc culture and demonstration of lymphocyte culture
11.30 – 11.45	Tea
11.45 - 14.00	Practical - Tissue culture and cell lines maintenance (Split participants in 5 groups)
14.00 – 14.30	Lunch
14.30 – 17.00	Practical - Tissue culture and cell lines maintenance (Continued)
17.00 – 17.30	Functional Assays for Transformation (Tumorigenesis) – Sharmila Bapat - Lecture 14
17.30-18.00	Karyotyping and its applications – Mrinalini Moghe - Lecture 15
Day 7 Wednesday 27 December 2023	
08.30 – 09.15	Breakfast
09.30 – 10.30	Post-test and discussion
10.30 – 11.30	Valedictory function
11.30 – 11.45	Tea
