



श्रद्धावान् लभते ज्ञानम्

Rammohan College



Workshop on MOLECULAR BIOLOGY TECHNIQUES & IN-SILICO DRUG DISCOVERY

CONTACT US

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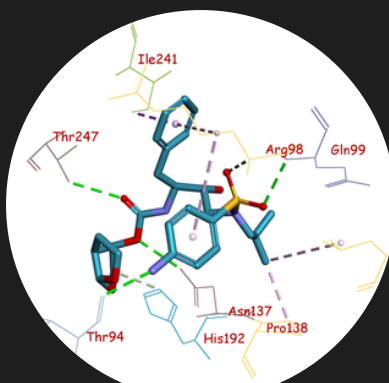
**16-23 MAY, 2023
10AM - 5PM**

**Course Fee
Rs. 1,500/-**

COURSE OFFERINGS

- DNA & PROTEIN ISOLATION
- AGAROSE GEL ELECTROPHORESIS
- PAGE
- WESTERN BLOT
- ELISA
- ANIMAL HANDLING TECHNIQUES
- IN-SILICO DRUG DISCOVERY

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Workshop on Molecular Biology Techniques and In-Silico Drug discovery

Organized by

Department of Zoology (BOOST supported)
Rammohan College
102/1, Raja Rammohan Sarani, Kolkata

COURSE DATE: 16-23 MAY, 2023
CLASS TIMING: 10 AM – 5 PM

Patron
Dr. Saswati Sanyal
Principal

Chief Guest
Mrs. Tapati Ghosh
GB President

President, Workshop Committee
Dr. S.N. Banerjee

Convener: Dr. Shantanu Das

Organizing Secretaries:

1. Dr. Kaustav Dutta Chowdhury
2. Prof. Sanjay Kumar Paul

Course Co-Ordinator :

Dr. Samik Acharjee

Treasurers :

1. Prof. Chayanika Roy (Head)
2. Dr. Santi Ranjan Dey

Logistics :

1. Mr. Narayan Pramanik
2. Mr. Shuvendu Mitra
3. Ms. Partikkha Murmu

Overview of the Course :

Genomic DNA isolation, quantification, and separation by agarose gel electrophoresis :

Isolation of genomic DNA from animal tissue by phenol-chloroform extraction method. Assessing the quality and estimating the quantity of the DNA using UV-VIS spectrophotometer. Separation of the DNA fragments based on their size by agarose gel using electrophoresis and visualization of the DNA bands in Gel Doc system.

Protein isolation, quantification and separation by PAGE followed by western blotting:

Extraction of total proteins from biological sample by tissue homogenization, quantification of protein in the sample by UV spectrophotometry and separation of the proteins based on their size by polyacrylamide gel electrophoresis (PAGE). Transfer of protein bands onto a nitrocellulose membrane using a technique called western blotting.

Enzyme-Linked Immunosorbent Assay (ELISA):

Detection and quantification of a particular antigen or protein in a biological sample by using antigen-antibody reaction in microplate.

Visit to CCSEA registered animal house and demonstration on animal handling techniques:

Demonstration on techniques of animal handling (mice), animal maintenance, discussion on drug administration, euthanasia and organ harvesting from euthanized animal as per standard guidelines.

In-Silico drug discovery method:

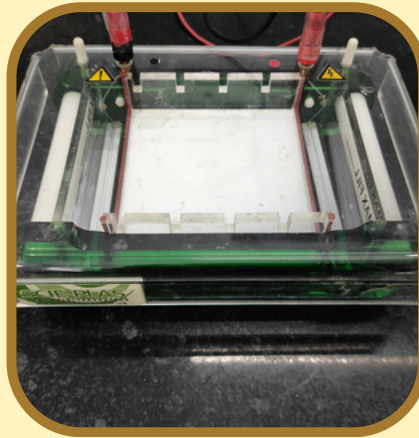
Basic concept about structure based and ligand virtual screening, preparation of protein and ligand structures for virtual screening, molecular docking and analysis of molecular docking results using different non-commercial software.

***** Submission of course reports by the participants.**

Infrastructural facilities (Supported by BOOST grant):



UV-VIS Spectro



Agarose Gel Apparatus



Gel Doc System



Vertical Gel Apparatus



Electro blotting system



Cooling Centrifuge



ELISA



Thermal cycler



Water purification system

Account Details:

Account name: Rammohan College

Account Number: 00250100005293

Bank of Baroda, College street branch, IFSC: BARBOCOLCAL