



Medical College and Hospital

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KALITHEERTHALKUPPAM, PUDUCHERRY - 605 107.

IIC Self Driven Activity – Research Week Celebration 2024

Institution's Innovation Council



Title : Workshop on 'Molecular Biology Techniques'

Date : 04.12.2024

Organizing Department: Department of Integrative Medical Research (Central Research Laboratory)

Coordinator : Dr. G. Muthu, Senior Scientist & Laboratory Supervisor

Time : 09.00 am – 04.00 pm

Objectives : The workshop aimed to provide participants with hands-on experience and theoretical knowledge of the processes involved in Molecular Biology Techniques.

Guest Speaker : Dr. G. Muthu

Participant Details : B.Sc. MLT & DMLT students

Programme Overview: The workshop started with pre-questionnaire followed by three consecutive theory sessions on 'DNA Isolation and Application' by Dr. G. Muthu, Senior Scientist & Laboratory Supervisor, 'PCR and its Application' by Dr. Tresa Remya A.T, Research Scientist and 'DNA separation by agarose gel electrophoresis' by Ms. B. Shalini, Research Assistant. An inauguration event was conducted after the theory sessions at Biochemistry Demo room-1 with the inaugural address by respected Deputy Director cum Dean Dr. R.N. Kagne and felicitation by Dr. M. Jeyakumar, Professor and Head, Department of Biochemistry and Dr. G. Muthu. Further, the practical sessions started at Biochemistry Laboratory with the supervision of resource persons Dr. G. Muthu, Dr. Tresa Remya A. T, Mr. R. Balakrishna Pai, Dr. S. Suganya, Mr. R. Rajprasath, Mrs. K. Elakiya, Ms. B. Shalini. The participants successfully isolated DNA from the whole blood by salting out

method, followed by demonstration of PCR and performed the separation of DNA and amplified PCR product by agarose gel electrophoresis. The DNA and gene bands in the gel were further viewed under UV Transilluminator. The students were enthusiastically participated in the workshop, the event concluded with post-questionnaire and the results were highly appreciable.

Outcomes: The students successfully isolated DNA from whole blood using the salting-out method, actively participated in the demonstration of PCR, and separated DNA as well as amplified gene fragments through agarose gel electrophoresis. During the workshop, they acquired foundational knowledge on preparing Tris-Acetic Acid-EDTA (TAE) buffer, agarose gel preparation, and the specific roles of each reagent involved in the process of DNA isolation from whole blood samples.

Way Forward/Conclusion: The workshop was a successful event and concluded with post-questionnaire and feedback. The results were highly appreciable, and response of the participants were encouraging as well.

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