

Hands-on Workshop on  
**Basic Molecular Biology  
Techniques – II**  
**(BMBT-II)**

**7<sup>th</sup>, 8<sup>th</sup> & 9<sup>th</sup> January 2025**

**Preamble:**

Rapid advancements in the field of molecular biology have stimulated research and significantly impacted progress in all the areas of medical sciences. Thus, the understanding of molecular biology tools, along with hands-on skills among the medical professionals of various medical departments, is critical. The main objective of the workshops is to acquaint the participants with focused and comprehensive hands-on training on molecular biology techniques. The training will consist of scientific lectures and hands-on sessions to impart a thorough understanding of molecular tools and techniques.

**Theory sessions:**

Basics of Molecular Biology and applications of Molecular Biology in medical research.

**Experimental sessions:**

Genomic DNA extraction, RNA extraction, cDNA synthesis, PCR & qPCR, Agarose Gel Electrophoresis, interpretation and reporting.

**Participants:**

Participants will include faculty, post graduates and research scientists interested in gaining skills in molecular research.

**Training outcome:**

Candidates will acquire skills, confidence, and competence to perform routine molecular biology techniques, supporting molecular diagnostics and research.

**Trainers:**

The faculty and Research Scientists of the Institute.

**Registration:**

A total of 25 participants will be registered on first-cum-first serve basis.

**Registration Link:**

[https://docs.google.com/forms/d/e/1FAIpQLSfU\\_EgzF0tw-CBOhismYtrJV53a9LsA8N9e8qHRqBXc-p\\_aYw/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLSfU_EgzF0tw-CBOhismYtrJV53a9LsA8N9e8qHRqBXc-p_aYw/viewform?usp=pp_url)

**Registration fee:** Rs. 3000/-

**Payment details:** Gpay/Phonepe

**Number:** 8096652518

**Name:** N.RAJU

**Last Date:** 24.12.2024

**\*Note: 6 credit hours will be provided to the registered candidates from Telangana Medical Council.**

**Workshop Location:**



**Department of Microbiology &  
Multi-Disciplinary Research Unit  
Government Medical College,  
Siddipet, Telangana.**

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**SCHEDULE**

**Day 1: (7<sup>th</sup> January 2025)**

TIME	TOPIC
09:00-9:15 AM	Registration
09:15-9:30 AM	Pretest
09:30-09:45 AM	Introduction to workshop
09:45-10:15AM	Inaugural
10:15-10:30 AM	Tea Break
10:30-11:00 AM	Setting Up a PCR Laboratory
11:00-11:30 AM	Sampling, extraction of DNA/ RNA
11:30-12:00 PM	Primer designing
12:00-12:30 PM	PCR: A Diagnostic Tool in Modern Medicine
12:30-01:00 PM	PCR Applications in Scientific Research
01:00-02:00 PM	Lunch
02:00-3:30 PM	Practical Demo of Manual and Automated extraction
03:30-5:00 PM	Practical Demo of Conventional / Real-time PCR & Agarose Gel Electrophoresis

**Day 2: (8<sup>th</sup> January 2025)**

TIME	TOPIC
09:00-09:30 AM	Recap
09:30-10:00 AM	Hands on sample Aliquoting & processing, Sample packaging and transport guidelines
10:00 -10:15 AM	Tea break
10:15-11:15 AM	Hands on Manual/Automated Extraction
11:15 -12:00 PM	Hands on Conventional / Real- time PCR
01:00 -02:00 PM	Lunch
02:00-05:00 PM	Hands on Agarose Gel Electrophoresis

**Day 3: (9<sup>th</sup> January 2025)**

TIME	TOPIC
9:00-9:30 AM	Recap
9:30-10:00 AM	Interpretation of results
10:00 -10:15AM	Tea break
10:15-11:15 AM	Hands on Manual/Automated Extraction
11:15 -12:30PM	Hands on Conventional / Real- time PCR
12:30-1:00PM	Hands on Agarose Gel Electrophoresis
1:00 -2:00 PM	Lunch
02:00-02:15 PM	Post Test
3:15-5:00PM	Valedictory and vote of thanks followed by Tea & Snacks

**Patron**

Dr. Vimala Thomas

Director

Government Medical College, Siddipet

**Co-Patron**

Dr Ch. Shanthi, Superintendent,  
Government General Hospital, Siddipet

**Co-Patron**

Dr G. Srinivas, Vice Principal  
Government Medical College, Siddipet

**Organizing Secretary**

Dr. V. V. Shailaja,

HOD, Department of Microbiology, &  
Nodal Officer, Multi-Disciplinary Research Unit  
Government Medical College, Siddipet

**Organizing Committee**

Dr. L. Prashanthi

Dr Sunitha Pakalapaty

Dr. Syed Irfan Kazim

Dr. J.Apoorva Krishna

Dr. Raju Nagarapu

Dr. B.Chaitanya kumar

Dr. Swapna Siddamalla

& Technical Staff

**Contact for any queries:**

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