



SAROJINI NAIDU VANITA PHARMACY MAHA VIDYALAYA (Co.Ed.)

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NBA Accredited B. Pharmacy Course, Accredited A+ grade by NAAC

Report on

Visit to CCMB (Centre for Cellular and Molecular Biology)- Hyderabad

Department of Pharmacology

Sarojini Naidu Vanita Pharmacy Maha Vidyalaya (Co-Ed.)

Date : 24th February 2026

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Introduction

An academic visit to the **Centre for Cellular and Molecular Biology (CCMB)** was organized by the **Department of Pharmacology, Sarojini Naidu Vanita Pharmacy Maha Vidyalaya (Co-Ed.)** to provide postgraduate students with practical exposure to advanced research facilities and modern experimental techniques used in molecular biology, genetics, and biomedical research.

The visit was conducted on **24th February 2026 at 02:00 PM onwards**. The purpose of the visit was to familiarize students with state-of-the-art laboratory infrastructure, sophisticated instrumentation, and experimental animal facilities used for biomedical and pharmacological research.

Participants

The visit was led by **Dr. T. Venu**, Head of the Department of Pharmacology. The following faculty members accompanied the students:

- **Dr. K.R.V.S. Chaitanya**, Associate Professor
- **Dr. M. Sreekanth**, Associate Professor
- **Mrs. A. Shailaja**, Assistant Professor
- **Mr. K. Suresh**, Assistant Professor
- **Mrs. P. Rajya Lakshmi**, Assistant Professor
- **Mrs. Rithu Jain**, Assistant Professor

The visit was attended by **II Semester and III Semester M.Pharmacy (Pharmacology) students** along with **Lab Technician Mr. Dhanraj**.



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Initial Orientation Session

The visit commenced with an introductory session conducted by the **Public Relations Officer of CCMB**, who provided an overview of the institute, its history, and its contributions to scientific research.

This was followed by a detailed presentation on the **salient features, research domains, and advanced facilities available at CCMB**, delivered by **Dr. Jerald Mahesh Kumar, Scientist and In-charge**. The session highlighted the institute's role in molecular biology research, genomics, proteomics, disease biology, and translational biomedical research.

Laboratories and Facilities Visited

During the visit, the students and faculty toured several specialized laboratories and research facilities within CCMB. These include:

1. Proteomics Laboratory

The proteomics laboratory focuses on the large-scale study of proteins, including their structure, function, and interactions. Students were introduced to advanced techniques used for **protein identification, characterization, and biomarker discovery**. The functioning and applications of **mass spectrometry** in proteomic analysis were explained.

2. Sanger Sequencing Facility

In this facility, students learned about the classical **DNA sequencing method used to determine nucleotide sequences**. The working principle of the **Sanger sequencing equipment**, sample preparation procedures, and applications in genetic analysis and mutation detection were demonstrated.



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3. Drosophila Facility

The **Drosophila (fruit fly) facility** is used for genetic and developmental biology research. Students observed how **Drosophila melanogaster** is maintained and used as a model organism for studying gene function, neurobiology, and disease mechanisms.

4. Next Generation Sequencing (NGS) Laboratory

The NGS laboratory houses advanced sequencing platforms that enable **high-throughput genomic analysis**. Students were introduced to both **short-read and long-read sequencing technologies** used in genome sequencing, transcriptomics, and precision medicine research.

5. Zebrafish Facility

The zebrafish facility supports research using **zebrafish as a vertebrate model organism**. The students learned about zebrafish maintenance systems, breeding procedures, and its applications in **developmental biology, toxicology, and drug discovery studies**.

6. Animal House Facility

The CCMB animal house is a well-maintained experimental facility that houses laboratory animals used in biomedical research. Students were introduced to **ethical animal handling practices, housing conditions, and regulatory guidelines** followed for laboratory animal experimentation.

7. Research and Development (Experimental Animal Facility Area)

This area houses advanced experimental setups used for conducting **preclinical studies and physiological assessments in animal models**. Researchers demonstrated various instruments used for behavioral, physiological, and biomedical evaluations.

Advanced Equipment Observed

During the visit, students were introduced to several sophisticated research instruments. Some of the important equipment observed include:



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S. No	Equipment	Application
1	Sanger Sequencing Equipment	Determination of DNA nucleotide sequences
2	Mass Spectrometer	Protein identification and proteomic analysis
3	Short Read Sequencing Systems	High-throughput genomic sequencing
4	Long Read Sequencing (Oxford Nanopore Technique)	Sequencing of long DNA fragments for genome mapping
5	Optical Genome Mapper	Detection of structural variations in genomes
6	Haematology Analyzer	Analysis of blood parameters in experimental animals
7	Hypoxia Chamber	Study of physiological responses under low oxygen conditions
8	EchoMRI System	Non-invasive body composition analysis in animals
9	Grip Strength Machine	Assessment of neuromuscular strength in rodents
10	Photodynamic Therapy Equipment	Research in cancer treatment and phototherapy
11	Cardiac Imaging System	Evaluation of cardiac structure and function
12	Stereomicroscope	Detailed observation of small organisms and tissues

Outcome of the Visit

The visit provided significant academic and research exposure to postgraduate pharmacology students. The key outcomes include:

- Students gained **first-hand knowledge of advanced molecular biology and biomedical research techniques.**
- Exposure to **state-of-the-art laboratory instrumentation** used in genomics, proteomics, and experimental animal research.
- Understanding of **model organisms such as Drosophila and Zebrafish** used in biomedical research.
- Awareness of **ethical guidelines and regulatory practices in animal experimentation.**



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- Insight into **modern genomic sequencing technologies and proteomics research methodologies.**

Impact Analysis

The visit had a positive impact on both students and faculty members. It enhanced students' understanding of **translational research and interdisciplinary approaches in drug discovery and biomedical sciences.** The exposure to advanced research facilities helped bridge the gap between **theoretical knowledge and practical scientific applications.**

Such visits also inspire students to pursue **innovative research projects, higher studies, and collaborative scientific work.** Additionally, the interaction with scientists and research professionals at CCMB provided valuable insights into **career opportunities in molecular biology, pharmacology, and biotechnology research.**

Overall, the visit was highly informative and contributed significantly to the **academic enrichment and research orientation of M.Pharmacy Pharmacology students.**



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List of participants

S. No	Name of the Student	Semester	Signature
1	Hari Karthik	II Semester	AH
2	Ruchitha	II Semester	Ruchitha
3	Sravya Shree	II Semester	Sravya
4	Sudha Rani	II Semester	sudha
5	B. Vaishnavi	II Semester	Vaishnavi
6	Sreya Vaishnavi	II Semester	Sreyas
7	K. Ramu	II Semester	Ry
8	Rizwan	II Semester	Rizwan
9	Krishna Shree	II Semester	R. Krishna
10	G. Jagadeesh	II Semester	Jagadeesh
11	M. Kavya	II Semester	Kavya
12	Thalla Priyanka	II Semester	T. Priyanka



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S. No	Name of the Student	Semester	Signature
1	Bathula Jayashri	III Semester	<i>Bathula Jayashri</i>
2	U. Bharathi	III Semester	<i>U. Bharathi</i>
3	K. Sneha	III Semester	<i>K. Sneha</i>
4	Bhanu Deepika	III Semester	<i>Bhanu deepika</i>
5	Swetha	III Semester	<i>Swetha</i>
6	Swathi	III Semester	<i>Swathi</i>
7	Pavani	III Semester	<i>Pavani</i>
8	Anitha	III Semester	<i>Anitha</i>
9	Vaishnavi	III Semester	<i>Vaishnavi</i>
10	Sumaiya	III Semester	<i>Sumaiya</i>
11	Nabila	III Semester	<i>Nabila</i>
12	Hajera	III Semester	<i>Hajera</i>
13	Indu	III Semester	<i>Indu</i>
14	Ramya	III Semester	<i>Ramya</i>



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1	Dr. T.Venu	HoD & Professor	
2	Dr. K.R.V.S.Chaitanya	Associate Professor	
3	Dr.M.Sreekanth	Associate Professor	
4	Mrs.A.Shailaja	Assistant Professor	
5	Mrs. Rajyalakshmi	Assistant Professor	
6	Mr. D.Suresh	Assistant Professor	
7	Mrs. Rithu Jain	Assistant Professor	
8	Mr. Dhanraj	Assistant Professor	



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