



St. Francis
College for Women
Begumpet, Hyderabad-500016
(Autonomous & Affiliated to Osmania University)



जैवप्रौद्योगिकी विभाग
DEPARTMENT OF
BIOTECHNOLOGY

PROTEOMICS WORKSHOP REPORT

1. Brochure:-

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जैवप्रौद्योगिकी विभाग
DEPARTMENT OF
BIOTECHNOLOGY

Department of Microbiology
under DBT Star College Scheme

Organizes an
Online Workshop on
Proteomics

Event Coordinator

Dr. Rupak Roy
Research Scientist
SHRM Biotechnologies Pvt. Ltd.

Ms. Pranati Das
Research Coordinator
SHRM Biotechnologies Pvt. Ltd.

Ms. Aparajita Chakraborty
Research Coordinator
SHRM Biotechnologies Pvt. Ltd.

Ms. Shreese Ghosh
Research Coordinator
SHRM Biotechnologies Pvt. Ltd.

Scan Here to Join

27th to 30th January 2026
6:00 PM to 8:00 PM (IST)

For B.Sc. II C & III C Students

2. Resource person's details:-

Dr. Rupak Roy – Research Scientist (SHRM Biotechnologies Pvt. Ltd)

Ms. Pranati Das – Research Coordinator (SHRM Biotechnologies Pvt. Ltd)

Ms. Aparajita Chakraborty – Research Coordinator (SHRM Biotechnologies Pvt. Ltd)

Ms. Shreese Ghosh- Research Coordinator (SHRM Biotechnologies Pvt. Ltd)

3. Organized by- Department of Microbiology

- Dr. P Roselin - HoD, Microbiology
- Dr. Gayathri - DBT Coordinator
- Dr. Arsheen Tabassum – Asst. Professor
- Ms.K Swathi - Asst. Professor
- Dr.K. Suman- Asst. Professor
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4. Participant Details:-

Date:- 27th January – 30th January

Venue:- Virtual Meet

Time:- 6pm to 8pm

Participants:- Second and Third year Microbiology students

Total Participation:- 55+ Students, 4+ Faculty

Target Audience:- Students enthusiastic about learning protein interactions

5. Brief Report:-

The Proteomics Workshop – 27th January to 30th January

The proteomics workshop was highly informative and well-organized. It offered comprehensive insights into protein databases, protein retrieval methods, and molecular docking techniques. The sessions were conducted in a clear and structured manner, facilitating better understanding of advanced concepts. Overall, the workshop was an impressive and enriching academic experience.

6. Detailed Report:-

Objectives:-

- To provide an understanding of major protein databases and their applications in biological research.
- To familiarize participants with protein retrieval techniques and data analysis tools.
- To introduce the fundamentals of molecular docking and its role in drug discovery.

- To enhance awareness of computational approaches used in proteomics and bioinformatics research.
- To introduce students to in silico vaccine designing tools and methodologies for epitope prediction, evaluation, and development of potential vaccine candidates.

Outcomes:-

- Gained hands-on understanding of protein databases and retrieval tools.
- Developed basic knowledge of molecular docking and computational analysis.
- Learned fundamental concepts of in silico vaccine designing.
- Enhanced skills in applying bioinformatics approaches to biomedical research.

Session Details:-

The workshop was organized by the Department of Microbiology, with support from the Department of Biotechnology (DBT), in collaboration with SHRM Biotechnologies Pvt Ltd.

Day 1- 27th January

- Speaker – Ms. Aparajita Chakraborty
- Introduction to Proteomics, definition, importance and scope.
- Followed by hands on training including protein sequence retrieval from protein databases such as Uniprot and Proteom Xchange Consortium.
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Day 2 – 28th January

- Speaker – Ms. Aparajita Chakraborty
- Hands on training on protein retrieval sequence (HSP 70 Human) from NCBI Database, followed by GEO profile analysis and heatmap generation. Students were also trained to use the STRING database to study protein–protein interactions, providing practical exposure to proteomic data analysis tools.

Day 3 – 29th January

- Speaker – Ms. Pranati Das
- This session focused on the identification of molecular protein markers and pathogenic proteins, followed by molecular docking studies. Docking was performed using the DprE1 protein with the drug Macozonine through the SwissDock platform, offering hands-on experience in structure-based drug analysis.

Day 4 – 30th January

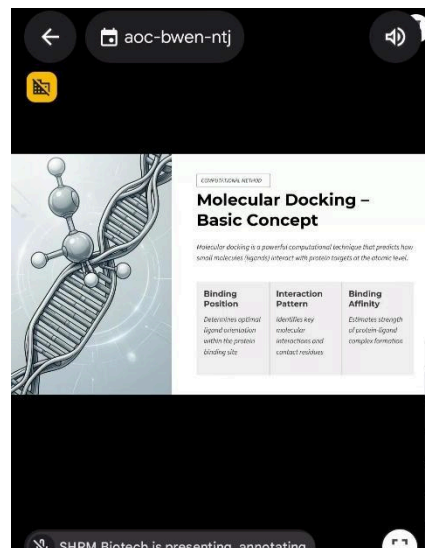
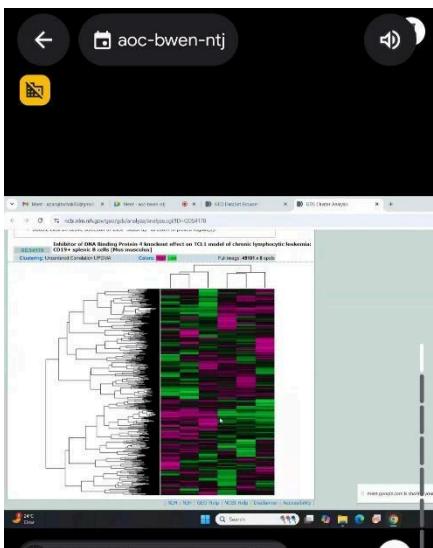
- Speaker – Ms. Shreosee Ghosh
- This session focused on in silico vaccine designing using the IEDB database. The selected epitopes were analyzed for allergenicity using AllerTOP. Antigenicity and compatibility were assessed using VaxiJen, giving students practical exposure to vaccine evaluation tools.

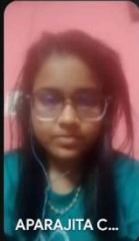
Conclusion:-

The proteomics workshop commenced and concluded smoothly, with the session ending with a vote of thanks delivered by Dr. Arsheen Tabssum.

The workshop provided a comprehensive blend of theoretical knowledge and hands-on training in bioinformatics and computational biology. Participants gained practical exposure to protein sequence retrieval, expression analysis, protein–protein interaction studies, molecular docking, and vaccine designing. The sessions on identifying molecular markers and pathogenic proteins strengthened understanding of targeted drug discovery and preventive therapeutics. The workshop was well-structured, engaging, and effectively delivered, making it a highly successful academic initiative. Overall, it significantly enhanced students’ technical skills and research orientation in proteomics and biotechnology.

7. Photographs:-

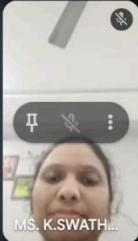




APARAJITA C...



MS. P.ROSELIN MICROBIOLOGY

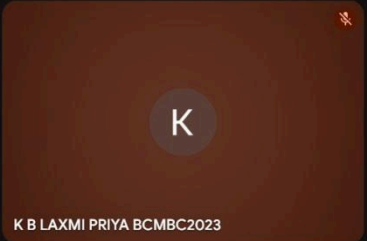


MS. K.SWATH...



E

ESTHALAMULI SNEHALATHA REDDY BCMBC2...



K

K B LAXMI PRIYA BCMBC2023



SHRM Biotech Training - Co-ordinator



MS. ARSHEE...



55 others



V

VEDITHA KRISHNA DEVIREDDY BTMBC2023

