## Guest Lecture on "Sample Preparation of Diagnosis of Breast Cancer" 27.10.2023

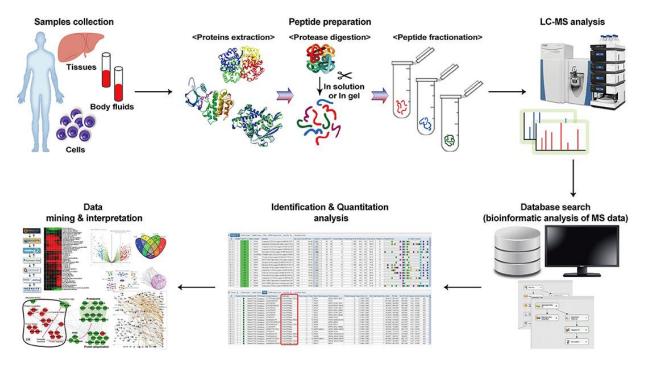
A Guest Lecture was conducted by Department of Botany, Biotechnology, Department of Chemistry On 27<sup>th</sup> OCT 2023 by the resource person Dr.D Venkateswarlu Naik, Technician At Proteomics Facility, National Center For Cell Science, Savitribai Phule Pune University.

## **Objectives:**

- To create basic understanding among students about the diagnosis of breast cancer.
- To introduce basic steps involved in study of proteomics.
- To create understanding about sample preparation during diagnosis.
- To introduce all the equipment used during diagnosis virtually.
- To introduce working of mass spectrometer, HPLC, MALDI\_TOF, SDS.

The speaker gave a brief talk on how the proteomics facility provides the provision of analyzing breast cancer samples, cell line distribution also a great reserve for the research. He emphasized the work flow of proteomics study "The Identification of- Biomarkers for breast cancer". So, It is based on the basic understanding- that the people infected with breast cancer would have unique proteins synthesized by body. And identifying the presence of such proteins would help diagnose the disease.

The work flow involves an elaborate procedure and techniques with use of several instruments. To outline it, the flowchart is given below:



At the conclusion of the session, our principal Dr.V.Narayana Rao, Vice principal Sri P.L Ramesh, SK.Ismaiel Ali Basha, Head, Dept of Botany and Dr.G. Krishna Veni, Head, Dept of Chemistry and E.Honey Rachel, Lecturer- Biotechnology felicitated the guest. The session drew 103 students from I-Biotechnology and Microbiology, II,III- CBZ and II MCCS. Ms.M Hemalatha, Ms.M.Sahithi,Mrs. Sridevi, were among faculty who attended the event.

## **Outcomes:**

- Students acquired basic understanding about the diagnosis of breast cancer
- Students acquired knowledge on basic steps involved in study of proteomics
- Students acquired understanding about sample preparation during diagnosis
- Students saw and got to know about all the equipment used during diagnosis virtually
- Students understood about working of mass spectrometer, HPLC, MALDI\_TOF, SDS.



Dr. D. Venkateswarlu demonstrating the use of Gel in SDS-PAGE for protein separation, use of Columns in HPLC for protein separation.





Dr. D. Venkateswarlu Speaking on Sample preparation and use of Mass spectrometer.



Felicitation of chief guest Dr.D Venkateswarlu, by Principal Dr.V.Narayana Rao , Vice Principal P.L. Ramesh , Head of Department Chemistry Dr. G. Krishnaveni , Head of Botany and Biotechnology Sk. Ismaiel Ali Basha , Dr K Ramakrishna , and Lecturer in Biotechnology E. Honey Rachel.

