



## Faculty Development Program



**VIT**<sup>®</sup>  
Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

### Discussion Points

**Title :** FDP on Characterization of Proteins

**Date :** 02-Apr-2024 - 06-Apr-2024

**Time :** 10:00 - 17:30

**Venue :** KAMARAJ AUDITORIUM

- Protein Purification Strategies at Lab Scale.
- Surface Plasmon Resonance Technology and Applications
- Mimicking collagen through collagen model peptides using a new strategy
- Vibrational circular dichroism in protein & peptide structure analysis: A strategy of isotopic substitution
- Protein NMR Spectroscopy
- Trends and developments in antibody based applications

**Resource Person 1 - Details****Name :** DrBhaskar Bhaskar**Designation :** Application Specialist , Protein Research of Cytiva**University/ Company :** Hyclone Life Sciences Solutions India Private Limited , Bengaluru**Address :** India, 560066.**Resource Person 2 - Details****Name :** MrKarthik Senan**Designation :** Product Manager , Protein Research of Cytiva**University/ Company :** Hyclone Life Sciences Solutions India Private Limited , Bengaluru**Address :** India, 560066.**Resource Person 3 - Details****Name :** DR CHANAKYA NUGOOR**Designation :** Assistant Technical Manager South, Biosciences Division Invitrogen Bioservices Private Limited**University/ Company :** Thermo Fisher Scientific, Hyderabad**Address :** INDIA, 500081.**Resource Person 4 - Details****Name :** Dr Saravanan Kumar**Designation :** Application Leader Proteomics and Bio Pharma, Proteomics Biopharma Lab Chromatography and Mass Spectrometry Division**University/ Company :** Thermo Fisher Scientific, Bangalore**Address :** INDIA, 560066.**Resource Person 5 - Details****Name :** Dr Raju Naini**Designation :** Product Specialist, Sample Prep Molecular and Protein Biology**University/ Company :** Thermo Fisher Scientific, Hyderabad**Address :** INDIA, 500007.**Resource Person 6 - Details****Name :** Dr Kalyan Chakrabarti**Designation :** Associate Professor of Biological Science and Chemistry and Associate Dean, School of Interwoven Arts and Sciences**University/ Company :** Krea University, Sri City Andhra Pradesh**Address :** INDIA, 517646.**Resource Person 7 - Details****Name :** Dr S GANESH**Designation :** Senior Principal Scientist, Organic and Bioorganic Chemistry**University/ Company :** CSIR Central Leather Research Institute, Chennai**Address :** INDIA, 600020.

## **Resource Person's Profile :**

### **1. Profile of DrBhaskar Bhaskar**

Present Position: Application Specialist. Protein Research of Cytiva.

More than 5 years of Industrial experience in protein purification, biomolecules interaction analysis and workflow related products as technical and application specialist.

Completed PhD in Biochemistry from CSIR-Central Drug Research Institute, Lucknow in 2017. During PhD published research articles in peer reviewed journal like BBRC, FEBS Journal etc.

Worked as post-doctoral fellow in Indian Institute of Science

### **2. Profile of MrKarthik Senan**

Currently working as the Product Manager. Protein Research (Cytiva)

10 Years plus work experience in the Life Science industry.

Technical experience in various companies like, Eppendorf, Perkin Elmer, GE Healthcare Lifesciences.

Techno-commercial expertise on Surface Plasmon Resonance (SPR),Biomolecular interaction.

Alumini of VIT university.

### **3. Profile of DR CHANAKYA NUGOOR**

He received Ph.D. degree in 2008 from the Max Planck Unit for Structural Molecular Biology, Hamburg, Germany. His core scientific interests are in molecular biology, biochemistry, and immunology, with methodological skills. Has more than 20 years of experience in business development and customer interaction in Life Science Industry. Before joining Thermo Fisher Scientific, he was a Research Scientist at Syngene, Bangalore and Technical Manager - Research Solutions in Merck Life Sciences.

### **4. Profile of Dr Saravanan Kumar**

He started his career in Proteomics and Structural Biology at CSIR IGIB, New Delhi. He pursued Ph.D in ICGEB, New Delhi, in Proteomics and Mass Spectrometry. He has many years of experience in Mass Spectrometry and Protein biochemistry. He has contributed for more than 25 international publications, Book chapters and Global Application Notes. He is currently leading the lab specialized in Biopharma, Pharma, Proteomics and Metabolomics. He also closely works with leading industries and academia.

### **5. Profile of Dr Raju Naini**

I am Dr. Raju Naini, working as product specialist III covering South India, Sri Lanka, and Maldives. I have 4 years of experience in the Healthcare and 1 year of experience in Biotech and Biopharma industry. In 2018, I accomplished my doctoral degree from Centre for Plant Molecular biology (CPMB), Hyderabad. I have published 5 articles in reputed journals with an experience in Anti-aging, Cardioprotective, Molecular models designing and Transgenics creations.

### **6. Profile of Dr Kalyan Chakrabarti**

Kalyan pursued PhD (Integrated) at the Indian Institute of Science, Bengaluru. Subsequently, he carried out post-doctoral research in Max Planck Institute for Biophysical Chemistry, Germany. His another post-doctoral stint was in Brandeis University, USA. Thereafter, he joined as a faculty member in Krea University, Sri City, Andhra Pradesh, India.

### **7. Profile of Dr S GANESH**

Dr Ganesh pursued PhD in CSIR-CLRI, Chennai. Subsequently he carried out post-doctoral research in the US. Protein and peptide chemistry and their biophysical characterization are his research interests. He also specialized in Vibrational Circular Dichroism, which can be useful for characterization of proteins and peptides. After post-doctoral research, he joined in CSIR - CLRI, Chennai in the year 2015.

Proteins are essential for the survival and normal functioning of all biological systems. Many biotechnology industries, such as biopharmaceutical and food technology industries are keenly involved in the making of different types of proteins for various purposes. In particular, the biopharmaceutical industries major focus is on therapeutic proteins to treat various diseases or disorders. So, characterization of proteins is essential, in order to check the quality, especially to examine and improve the efficacy of the therapeutic proteins. Various tools are required for proteins characterization, for example, spectroscopic techniques such as circular dichroism, nuclear magnetic resonance (NMR) spectroscopy, etc. Knowledge about such techniques is therefore essential, so that the proteins can be characterized in the best possible manner. Hence, the purpose of this FDP is to introduce some emerging areas or concepts pertaining to the techniques used for characterizing proteins. Emerging concepts in the fields of chromatography, surface plasmon resonance, circular dichroism spectroscopy, NMR spectroscopy, immunotechnology and mass spectrometry are the areas that are intended to be introduced through this FDP. Totally several resource persons from industries and academia are being invited for this FDP. Through this FDP, it is hoped that the participants are not only introduced to the emerging concepts areas, but also can understand various types of intricacies and nuances implicated in the aforementioned techniques.

ACS Labs software, Jasco standard analysis software, ImageJ for microscopy, Pymol

**Coordinator's: Prof. JAYAPRAKASH N S 10621 - Professor Grade 1 - CBST  
Prof. SABAREESH V 13608 - Assistant Professor Sr. Grade 1 - CBST**