

Shrot-term Course on General Principles of Lipidomics and Proteomics at Amity Lipidomics Research Facility (ALRF) Amity University Haryana and Sciex, Gurgaon, Haryana

Course Highlights

Day 1 (25/03/2019) at Amity University Haryana

10.00 AM – 10.15 AM – Introductory session

10.15 AM – 11.00 AM - Basic presentation on QTRAP technology

11.00 AM -11.15 AM– Tea Break

11.15 AM – 1.00 AM – Practical session on Sciex QTRAP Technology – Infusion based analysis – Showcasing various scan functions

1.00 PM – 2.00 PM – Lunch

2.00 PM – 3.30 PM – Practical session on Flow Injection Analysis (FIA) for source optimization

3.30 PM – 3.45 PM – Tea Break

3.45 PM – 5.00 PM – Method creation for LCMS analysis, and overnight data acquisition using targeted approach.

Day 2 (26/03/2019) at Amity University Haryana

10.00 AM – 10.45 AM – Theoretical session covering Lipidomics analysis using QTRAP

10.45 -11.15 – Lab session – Review of the data acquired last night.

11.15 – 11.30 – Tea break

11.30 – 1.00 PM – Analysis of targeted data using Multiquant software

1.00 PM – 2.00 PM – Lunch

2.00 PM – 3.30 PM - Untargeted Lipidomics analysis using Information Dependent Acquisition (IDA) method.

3.30 PM – 3.45 PM – Tea break

3.45 PM – 5.00 PM - LipidView software analysis of untargeted data.

Day 3 (27/03/2019) at Amity University Haryana

10.00 AM – 10.45 AM – Theoretical session – QTRAP and Proteomics

10.45 AM – 11.15 AM – Lab session – Method creation using targeted approach and running of trypsin digested beta galactosidase standard.

11.15 AM – 11.30 AM – Tea Break

11.30 AM – 1.00 PM – Lab session – Creation of IDA method for protein identification analysis and running of sample.

1.00 PM – 2.00 PM – Lunch

2.00 PM – 3.30 PM – Data analysis using online Mascot and ProteinPilot 5.0 software.

3.30 PM – 3.45 PM – Tea Break

3.45 PM – 5.00 PM – Continuation of software analysis.

Day 4 (28/03/2019) at Sciex, Gurgaon, Haryana

10.00 AM – 11.00 AM – Theoretical Session on High Resolution Mass Spectrometry analysis of Lipidomics and Proteomics

11.00 AM – 11.15 AM – Tea Break

11.15 AM – 1.00 PM - Demonstration of MS/MS ALL workflow for Lipidomics in Triple TOF system

1.00 PM – 2.00 PM – Lunch Break

2.00 PM – 3.30 PM – IDA method creation and data for acquisition for proteomics analysis using Triple TOF system.

3.30 PM – 3.45 PM – Tea Break

3.45 PM – 5.00 PM – Lipidomics and Proteomics data processing by PeakView, LipidView and ProteinPilot software.

Day 5 (29/03/2019) at Amity University Haryana

10.00 AM – 12.30 PM – General Interaction, Recap, Evaluation Test for participants

12.30 AM – 1.30 PM– Lunch

1.30 AM – 3.00 PM– Interaction with Faculty and Campus visit

3.00 AM – 3.30 PM– Distribution of Certificates by AIB/AIISH Director Prof. R Prasad

3.30 AM – Tea followed by Departure