Title: Hands-on-training program on CQA of biologics/biosimilar
Venue: Institute of Chemical Technology, Mumbai
Dates: 3rd Feb – 7th Feb, 2020
Keynote Speakers **Dr. Jyoti Iyer, General Manager , Biocon** **Dr.Venkata Yeturu, Head R&D Analytical, Lupin** **Dr. Dipak Thakur, Director,ACRNS Analytical Technologies** **Prof. Utpal Tatu, IISC Bangalore** **Speaker (Senior Expert)** **Dr. Navratna Vajpai , Biocon** **Dr. Ashish Pargaonkar, Application Specialist, Agilent Technologies** **Dr. Debdip Ghosh, Agilent Technologies** **Dr. Amarnath Chatterjee, Wockhardt** **Junior Expert** **Deepti Bhandarkar, Shimadzu** **Prashnat Dour, Application Specialist, Sciex** **Marianne Saldanha, ICT** **Amita Puranik, ICT** **Jayprakash Natrajan, Stelis Biopharma**

Day-1: 3rd Feb, 2020		
Sr. No.	Time	Activity
1	09:30 – 11:00Am	Classroom Session: Introduction to Mass Spectrometry & its importance in CQA analysis of biopharmaceuticals
2	11:15Am – 1:00 pm	Lab Session: Introduction to MS Hardware & brief overview of software part
		Sample preparation initiation – Desalting using centrifugal ultrafilters
3	2:00 pm – 3:00 pm	Lab Session: PNGase enzyme treatment for deglycosylation& incubation for over night
4	3:00pm – 4:00pm	Classroom Session: Introduction to Capillary Electrophoresis &itscrucial role in CQA analysis
5	4:30pm– 6:00 pm	Lab Session: Introduction to hardware & software of Capillary Electrophoresis

Day-2: 4th Feb, 2020		
1	9:30Am – 11:00 Am	Lab Session: PNGase enzyme removal and sample purification by using cartridges
		Initiation of Glycan labelling & incubation
2	11:30 Am – 1:00 pm	Lab Session: Introduction to Mass Spectroscopy based method development for glycan analysis & guidelines for method validation
		Mobile phase preparation
		Initiation of HILIC column Cleaning
3	2:00pm – 4:00 pm	Lab Session: Glycan Analysis on Mass Spectroscopy
4	4:30pm – 6:00pm	Lab Session: Data Analysis & discussion session
Day-3: 5th Feb, 2020		
1	09:30 Am – 11:00 Am	Lab Session: Capillary electrophoresis based glycan analysis
2	11:30 – 1:00 pm	Classroom Session: Introduction to LC-MS based charge variants analysis & Capillary electrophoresis based Charge variants analysis
3	2:00pm – 4:00pm	Lab Session: LC-MS & Column Cleaning, Mobile phase preparation
		Sample preparation (Desalting)
4	4:30 – 6:00pm	Lab Session: LC-MS Based Charge variants analysis
Day-4: 6th Feb, 2020		
1	9:30 – 11:00 Am	Lab Session: Capillary Electrophoresis based charge variants analysis
2	11:30 - 1:00pm	Classroom Session: Introduction to 2D LC MS
3	2:00 – 4:00 pm	Lab Session: 2D LC-MS based glycan & Charge variants analysis
4	4:30 – 6:00pm	Lab Session: 2D LC-MS based glycan & Charge variants analysis
Day-5: 7th Feb, 2020		
1	9:30 – 11:00Am	Lab Session: Data analysis & discussion session 2D LC-MS based sample analysis
2	11:30 – 1:00pm	Classroom Session: Introduction to Protein Matrix Software for biopharmaceuticals characterization
3	2:00 - 4:30 pm	Lab Session: Demo on application of Protein Matrix Software using previous MS based analysis data