

A Hands on Training Program on Application of Sophisticated Instrumental Techniques for Evaluation of Drugs and Pharmaceuticals During Discovery and Development

Under the scheme of **Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI)**

An initiative by **Department of Science and Technology, India**

Organized by **Institute of Chemical Technology, Mumbai (PMU)**

Hosted and Co-organized by **Bombay College of Pharmacy (BCP)**

National Facility for Research and Training

in Integrated Analytical Techniques for Discovery, Development, and Testing for Drugs, Pharmaceuticals, and Nutraceuticals (NFRT), a facility established at BCP with support from the Department of Science and Technology under Drugs and Pharmaceuticals Research Promotion Scheme (DST-DPRP) and Indian Pharmaceutical Association- Maharashtra State Branch (IPA-MSB)

30TH MAY

TO

05TH JUNE

2022 | MUMBAI

ABOUT THE PROGRAM

The aim of the training program is to provide a general overview on the practical aspects of sophisticated instrumental techniques in various facets of drug discovery and development with live analytical runs and discussion on case studies. The sessions are interactive with stress on principle, method development, data interpretation and analysis, with a mélange of lectures, demonstrations and practical sessions, conducted by experts in the field.

The practical exposure to instrumentation include:

1. HPLC, UHPLC, HPTLC
2. LC-MS/MS, ICP-MS and HPTLC-MS
3. High Speed Homogenizer, High Pressure Homogenizer
4. Zetasizer and Cascade Impactor
5. RT-PCR

WORKSHOP DETAILS

Eligibility:

Minimum qualification should be Post Graduate (Science/ Pharmacy) or B. Tech. (Technology), Faculty Members/ Scientists/ Post-Doc Fellows/ Ph. D. Fellows/ Industry Personnel who are actively involved in R&D

Duration: 7 days

No. of participants: 30

Accommodation, if required, and food will be provided

REGISTRATION
DEADLINE:
May 23, 2022

KEYNOTE SPEAKER

- **Dr. Saranjit Singh**
Ex-Professor and
HoD-Pharmaceutical Analysis,
NIPER, SAS Nagar

REGISTRATION

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NO REGISTRATION FEE



Time	Agenda	Resource Person
DAY 1: Monday, 30.05.2022		
09.00am – 09:45am	Arrival, Registration and Breakfast	Resource person from host institute
09.45am – 10:15am	Welcome and Introduction to the Course and Objectives	Prof. Krishnapriya Mohanraj , Coordinator Dr. Vaishali Shirsat , Co-coordinator
10.15am – 12:00pm	Lecture session 1: Key Note address: Application of Sophisticated Hyphenated Techniques in Characterization of Micro/Trace Components	Dr. Saranjit Singh Ex- Professor & HoD-Pharmaceutical Analysis, NIPER, SAS Nagar
12.00pm – 13:00pm	Lecture session 2: Basic Principles in Mass Spectrometry Based Identification of Drug Metabolites	Prof. Krishna Iyer I/c Principal & Professor of Pharmaceutical Chemistry, Bombay College of Pharmacy, Mumbai
13.00pm – 14:00pm	Lunch Break	
14.00pm – 15:00pm	Lecture session 3: Introduction to LC-MS/MS, ICP-MS or HPTLC and HPTLC-MS practical sessions (3 batches)	Lab Coordinators
15.00pm – 17:30pm	Lab session and practical training on LC-MS/MS, HPTLC and HPTLC-MS or ICP-MS (3 batches)	
17.30pm – 17:45pm	Evening Break	
17.45pm – 18:00pm	Q&A Session, Feedback/ end of the day	In-charge of the event, speakers and lab incharge
DAY 2: Tuesday, 31.05.2022		
09.00am – 09:30am	Arrival and Breakfast	Resource person from host institute
09.30am – 10:00am	Welcome and Program orientation	In-charge of the event from the host institute
10.00am – 11:30am	Lecture session 1: LC-MS/MS and its applications in Impurity profiling and Herbal Drug Discovery	Prof. Krishnapriya Mohanraj Professor of Pharmaceutical Analysis, Bombay College of Pharmacy, Mumbai
11.30am – 13:00pm	Lecture session 2: Applications of ICPMS in Pharmaceutical Industry	Dr. Piyush Deokar Product Marketing Manager, ThermoFisher Scientific, Mumbai
13.00pm – 14:00pm	Lunch Break	
14.00pm – 15:00pm	Lecture session 3: Introduction to LC-MS/MS, ICP-MS or HPTLC and HPTLC-MS practical sessions (3 batches)	Lab Coordinators
15.00pm – 17:30pm	Lab session and practical training on LC-MS/MS, HPTLC and HPTLC-MS or ICP-MS (3 batches)	
17.30pm – 17:45pm	Evening Break	
17.45pm – 18:00pm	Q&A Session, Feedback/ end of the day	In-charge of the event, speakers and lab incharge
DAY 3: Wednesday, 01.06.2022		
09.00am – 09:30am	Arrival and Breakfast	Resource person from host institute
09.30am – 10:00am	Welcome and Program orientation	In-charge of the event from the host institute
10.00am – 11:30am	Lecture session 1: Mass spectrometric and chromatographic techniques: A case study for herbal drug discovery and development	Dr. Vaishali Shirsat Associate Professor & HoD-Pharmaceutical Analysis, Bombay College of Pharmacy, Mumbai
11.30am – 13:00pm	Lecture session 2: HPTLC technique and applications	Mr. Vishwajit Kale Project leader and Application Specialist, Anchrom Enterprises India Pvt. Ltd., Mumbai
13.00pm – 14:00pm	Lunch Break	
14.00pm – 15:00pm	Lecture session 3: Introduction to LC-MS/MS, ICP-MS or HPTLC and HPTLC-MS practical sessions (3 batches)	Lab Coordinators
15.00pm – 17:30pm	Lab session and practical training on LC-MS/MS, HPTLC and HPTLC-MS or ICP-MS (3 batches)	
17.30pm – 17:45pm	Evening Break	
17.45pm – 18:00pm	Q&A Session, Feedback/ end of the day	In-charge of the event, speakers and lab incharge



Time	Agenda	Resource Person
DAY 4: Thursday, 02.06.2022		
09.00am – 09:30am	Arrival and Breakfast	Resource person from host institute
09.30am – 10:00am	Welcome and Program orientation	In-charge of the event from the host institute
10.00am – 11:30am	Lecture session 1: Solid state forms of drug: Influence of formulation and processing factors	Prof. Mangal Nagarsenkar Professor Emeritus, Bombay College of Pharmacy, Mumbai
11.30am – 13:00pm	Lecture session 2: In vitro testing of Inhaled Product	Prof. Mala Menon Adjunct Professor, Bombay College of Pharmacy, Mumbai
13.00pm – 14:00pm	Lunch Break	
14.00pm – 15:00pm	Lecture session 3: Introduction to High Speed Homogenizer, High Pressure Homogenizer Zetasizer and Cascade Impactor practical session	Lab Coordinators
15.00pm – 17:30pm	Lab session and practical training on High Speed Homogenizer, High Pressure Homogenizer Zetasizer and Cascade Impactor	Lab Coordinators
17.30pm – 17:45pm	Evening Break	
17.45pm – 18:00pm	Q&A Session, Feedback/ end of the day	In-charge of the event, speakers and lab incharge
DAY 5: Friday, 03.06.2022		
09.00am – 09:30am	Arrival and Breakfast	Resource person from host institute
09.30am – 10:00am	Welcome and Program orientation	In-charge of the event from the host institute
10.00am – 12:00pm	Lecture session 1: HPLC method development and validation with case study	Prof. Krishnapriya Mohanraj Professor of Pharmaceutical Analysis, Bombay College of Pharmacy, Mumbai
12.00pm – 13:00pm	Lecture session 2: NMR spectroscopy in Drug Discovery	Prof. Evans Coutinho Ex-Professor of Pharmaceutical Chemistry, Bombay College of Pharmacy, Mumbai
13.00pm – 14:00pm	Lunch Break	
14.00pm – 15:00pm	Lecture session 3: Introduction to HPLC and UHPLC practical session	Lab Coordinators
15.00pm – 17:30pm	Lab session and practical training on HPLC and UHPLC	Lab Coordinators
17.30pm – 17:45pm	Evening Break	
17.45pm – 18:00pm	Q&A Session, Feedback/ end of the day	In-charge of the event, speakers and lab incharge
DAY 6: Saturday, 04.06.2022		
09.00am – 09:30am	Arrival and Breakfast	Resource person from host institute
09.30am – 10:00am	Welcome and Program orientation	In-charge of the event from the host institute
10.00am – 11:30am	Lecture session 1: Estimating drug content in rodent skin for preclinical dermal pharmacokinetic studies	Dr. Anuradha Majumdar Dean Science and Technology, University of Mumbai
11.30am – 13:00pm	Lecture session 2: RT- PCR	Dr. Rachna Kaul Assistant Professor in Biotechnology, Bombay College of Pharmacy, Mumbai
13.00pm – 14:00pm	Lunch Break	
14.00pm – 15:00pm	Lecture session 3: Introduction to RT-PCR and HPLC practical session	Lab Coordinators
15.00pm – 17:30pm	Lab session and practical training on RT-PCR and HPLC	Lab Coordinators
17.30pm – 17:45pm	Evening Break	
17.45pm – 18:00pm	Q&A Session, Feedback/ end of the day	In-charge of the event, speakers and lab incharge



Time	Agenda	Resource Person
DAY 7: Sunday, 05.06.2022		
09.00am – 09:30am	Arrival and Breakfast	Resource person from host institute
09.30am – 10:00am	Welcome and Program orientation	In-charge of the event from the host institute
10.00am – 11:00am	Lecture session 1: Basics of Mass fragmentation Pathways	Prof. Krishnapriya Mohanraj Professor of Pharmaceutical Analysis, Bombay College of Pharmacy, Mumbai
11.00am – 13:00pm	Lecture session 2: Structural characterization of biosimilars	Dr. Dipak Thakur Director, ACRNS Analytical Technologies, Mumbai
13.00pm – 14:00pm	Lunch Break	
14.00pm – 15:00pm	Lecture session 3: Mass spectrometry for characterization of Biosimilars and Biotherapeutics	Dr. Dipak Thakur Director, ACRNS Analytical Technologies, Mumbai
15.00pm – 17:30pm	Lab session: Workshop on Interpretation of Mass Spectra of peptides and proteins	Dr. Dipak Thakur Director, ACRNS Analytical Technologies, Mumbai
17.30pm – 17:45pm	Evening Break	
17.45pm – 18:00pm	Q&A Session, Feedback/ end of the day	In-charge of the event, speakers and lab incharge

CONTACT DETAILS

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