

Learning Outcomes

After completion of the workshop, participants will acquire the knowledge of-

- Dereplication techniques
- Natural Products (NP) database
- LC-MSanalysis

Important Dates

Registration ends - 30th July 2019
(Limited to 15 participants)

Fee Structure

For students (per head): Rs. 2500/-

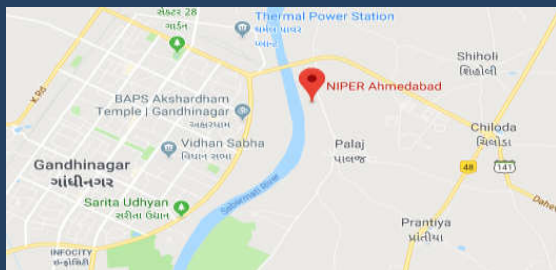
For faculty and industry person (per head):
Rs. 3500/-

Bank Details (SBI)

Name of A/C holder: NIPER AHMEDABAD
CONFERENCE

A/C No.: 37271317266 (IFSC code: SBIN0008434)

How to Reach at NIPER-A?



NIPER-Ahmedabad, Opp. Air Force Head
Quarters, Palaj, Gandhinagar-382355.

Contact us

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Agenda

Day 1 (August 2, 2019)

- Importance of dereplication techniques (early identification of known molecules) in Natural Products Research (NPR)
- Introduction of databases associated with NPR
- Use of Dictionary of Natural Products (DNP) and SciFinder[®] in dereplication process
- Role of HPLC-PDA in NPR

Day 2 (August 3, 2019)

- Application of LC-MS in NPR
- Case studies and data analysis
- Quiz session
- Certificate distribution

Whom Should Attend?

Natural Products, Pharmacognosy, Medicinal chemistry, Bioinformatics students (B. Pharm, M. Pharm, M.S. Pharm, M.Sc., and PhD), faculties, industry person, Govt. officials, etc.

Our Patron

Prof. Kiran Kalia
Director, NIPER-A



Instructors

Dr. Abhijeet S. Kate

Assistant Professor

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Mob. No. 9960248296

15 yrs of industrial and academic Research
Experience



Dr. Uma Ranjan Lal

Assistant Professor

E-mail: urlal@niperahm.ac.in

11 yrs of academic and research experience



Dr. Khemraj Bairwa

Post-Doctoral Fellow

E-mail: khemraj.bairwa@niperahm.ac.in

5 yrs of academic and research experience



A Workshop

on

Application

of

LC-MS/MS based

Dereplication tool

in

Natural Products Research

August 2-3, 2019

at



Organized By

Department of Natural Products

NIPER - Ahmedabad

Department of Pharmaceuticals, Ministry of
Chemicals and Fertilizers,
Govt. of India

NIPER-A

NIPER-A is an autonomous body set up under the aegis of Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, India in 2007. The Govt. of India has declared NIPERs as the 'Institutes of National Importance'. The Institute aspires to be an internationally recognized premier centre of excellence in teaching, research and entrepreneurial training in the field of pharmaceutical sciences.

Dept. of Natural Products

Department of Natural Products, NIPER-A, is involved in diverse research areas like:

- LC-MS based dereplication strategy for isolation of novel bioactive natural products from plants and microbial sources
- Phytochemical screening and anticancer activity of Indian medicinal plants
- Bio-prospecting of endolichenic fungi to discover novel bioactive scaffolds
- Fingerprinting of herbal extracts by LC-UV-MS for chemical marker identification
- Development of novel approaches for the separation and characterization of natural products
- Development and standardization of herbal formulations

Central Instrument Facility

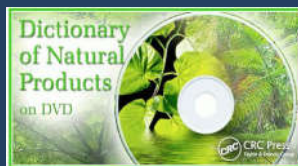
NIPER-A is well equipped with advanced instruments to support industry and academic research.

Here is the list of few instruments available in Central Instrument Facility (CIF) used in NPR:

- LC-MS/MS
- FTIR
- NMR (500 MHz)
- GC
- HPLCs
- Semi-Prep HPLC
- Polarimeter
- Flash Chromatography

Dereplication

Identification of drug like molecules within the immense biodiversity of forests, soils, and oceans still requires considerable investments in instruments, time, and human resources. An important part of this process is the early identification of known substances in order to concentrate the efforts on the discovery of new ones. A range of "dereplication" procedures are currently emerging to meet this challenge as key strategies to improve the performance of natural product screening programs. SciFinder[®], DNP, and AntiMarin are few of the examples for such kind of scientific screening.



LC-QTOF-MS Advantages

By combining HPLC and MS the strengths of both techniques can be utilized. The HPLC separates sample mixture into individual components, which are then fed into the mass spectrometer to produce respective MS spectrum. This data can be used to determine the accurate mass and molecular formula generation.

LC-MS/MS further fragment the molecular ion peak to produce product ion, which can be used to deduce the structure comparison.

These tools will be discussed/practiced during two days workshop.

REGISTRATION FORM

(Please fill the form in CAPITAL letters only)

Name:.....

Designation:.....

Qualification:.....

Age:.....

Official address:.....

Phone:.....

Mobile:.....

E-mail:.....

Registration fee: (Please tick the box)

Rs. 2500/- (for students)

Rs. 3500/- (for academic/industry person)

DD no. Date of issuing.....

Issuing Bank:.....

Signature of the Participant:

Date:

Forwarded by Principal/Head of the Institute
(Signature with seal)