



NATIONAL SEMINAR AND WORKSHOP ON



“Use of High Resolution Mass Spectrometry instruments in the analysis of secondary metabolites from Indian Medicinal Plants/parts and products”

20TH – 23RD JUNE-2018

**SOPHISTICATED ANALYTICAL INSTRUMENT FACILITY (SAIF),
CSIR-CENTRAL DRUG RESEARCH INSTITUTE, LUCKNOW**



**SPONSORED BY
DEPARTMENT OF SCIENCE & TECHNOLOGY
GOVT. OF INDIA**



Sophisticated Analytical Instrument facility (formerly known as Regional Sophisticated Instrumentation Centre - RSIC) at Central Drug Research Institute (CSIR), Lucknow has been providing excellent analytical service for the last 44 years and is one of the first four such facilities set up by the **Department of Science & Technology (DST)**, Government of India in 1973-74. The concept of the SAIF at Central Drug Research Institute evolved around the regional needs of scientists, research personnel and students engaged in research in the chemical and biological sciences. The sophisticated instruments at the center have been updated from time to time, keeping pace with the advancement of science and technology and the requirements of the users.

Objective of Workshop

This proposed workshop is aimed to cover basics of liquid chromatography (LC) followed by Q-TOF high resolution mass spectrometer (HRMS) and UPLC-QTrap-MS/MS to enable users to separate, identify, characterize and quantify pure phytochemicals as well as molecules in a mixture. The participants will benefit from this workshop in improving their understanding of the techniques and their applications in research activity. This will also help them to interpret the data for successful identification. All the participants will be able to watch the HPLC/UPLC-HRMS, MS/MS experiments on HPLC-QTOF-MS/MS, and UPLC-QTrap-MS/MS. The workshop includes both lectures (20% time) and laboratory sessions (80% time). One day seminar is planned to discuss real applications/case studies by experts using LC and/or LC-MS/MS.

Topics to be covered

1. Mass Spectrometry Basics
2. LC-MS/MS – Instrumentation and Applications
3. On-site Application Training on Mass Instruments
4. Lab Visit, Discussion and Certificate Distribution

Accommodation/Transportation

We will provide accommodation in Guest House (if available) on payment @ 300 per person per day from 19th – 23rd June 2018. **NO PICK and DROP service from Railway station or Airport.**

Lucknow

A sprawling historical city on the bank of river Gomti, Lucknow is the capital of Uttar Pradesh. A beautiful city of gardens, renowned for its Nawabi culture, shades of which still remain, it is now more famous for its Chikan garments, Dussheri mangoes, Awadhi cuisines and also for a large number of scientific institutions.

Last Date for receipt of Application with DD is 11th June 2018.

A late payment of 1000.00 from students and 2000.00 from others will be charged extra till 11th June 2018, if seats are available.

Registration fee for the Workshop

Private Organizations & Industry	Rs. 20,000.00
Academic faculty	Rs. 15,000.00
Students	Rs. 8,000.00

Participants from Organic Chemistry/Natural Products/Biotechnology/Pharmacy/Biochemistry etc are eligible to apply.

Note:

1. All the participants willing to join all (HPLC workshop followed by seminar and LC-MS workshop from 18th to 23rd June 2018) have to pay only 10,000.00 for students, 20,000.00 for Academic faculty and 30,000.00 for Industry participants.

Payments

Bank Draft should be drawn in favour of **Director, Central Drug Research Institute, Lucknow payable at Lucknow.**

Venue

SEN-F1 (Special Equipment Building)
Central Drug Research Institute,
B.S. 10/1 Sector-10
Janakipuram Extension, Sitapur Road, Lucknow-226031 (U.P.)
For any other information, please contact Organizing Secretary

Correspondence:

All correspondence should be addressed to:

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Senior Principal Scientist
(Organizing Secretary),
SEN-F1 (Special Equipment Building),
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CSIR-Central Drug Research Institute,
B.S. 10/1 Sector-10
Janakipuram Extension, Sitapur Road,
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E-mail: brijesh_kumar@cdri.res.in and seminar_mass@yahoo.in



SOPHISTICATED ANALYTICAL INSTRUMENT FACILITY
CSIR-Central Drug Research Institute, Lucknow

Workshop and Seminar On
**“Use of High Resolution Mass Spectrometry and LC-MS/MS
instruments in the analysis of secondary metabolites from Indian
Medicinal Plants/parts and products”**

20th to 23rd June 2018

Only 20 seats
Selection criterion: First cum first served

Registration form

Name:

Date of birth: Gender: M/F.....

Designation: E-mail:

Educational Qualification:

Department/Institute:

Address for Communication:

.....

Accommodation **required/not required**

Mobile:

Payment details:

Amount Rs: DD No.: Date:

Bank:

Signature of the candidate

Signature of head/supervisor

Completed and signed form with DD can be scanned and e-mailed to: seminar_mass@yahoo.co.in
and brijesh_kumar@cdri.res.in, followed by speed post to confirm your seat.

Payment Details DD/No. Dated..... For
INR..... in favour of Director, Central Drug Research Institute, Luknow, payable at
Lucknow, as registration fees.

Signature



SOPHISTICATED ANALYTICAL INSTRUMENT FACILITY
CSIR-Central Drug Research Institute, Lucknow

Combined Seminar and Workshop on HPLC and LC-MS/MS

18th to 23rd June 2018

Only 10 seats (Selection criterion: First cum first served)

Registration form

Name:

Date of Birth: Gender: M/F.....

Designation: E-mail:

Educational Qualification:

Department/Institute:

Address for Communication:

Accommodation **required/not required**

Mobile:

Payment details:

Amount Rs:

DD No.:

Date:

Bank:

Signature of the candidate

Signature of head/supervisor

Completed and signed form with DD can be scanned and e-mailed to: seminar_mass@yahoo.co.in and brijesh_kumar@cdri.res.in, followed by speed post to confirm your seat.

Payment Details

DD/No.Dated.....For INR.....in favour of Director, Central Drug Research Institute, Luknow, payable at Lucknow, as registration fee.

Signature

Note:

All those willing to join all (HPLC workshop, Seminar and LCMS workshop) have to pay only 10,000.00 for students, 20,000.00 for Academic faculty and 30,000.00 for Industry participants.

6520 Quadrupole Time of Flight (Q-TOF) Mass Spectrometer

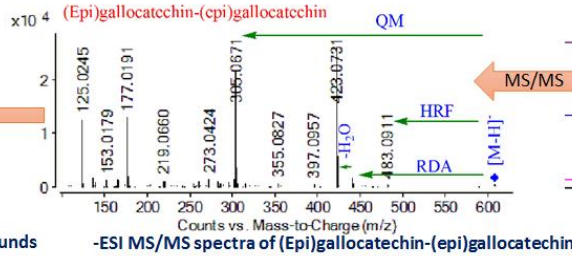
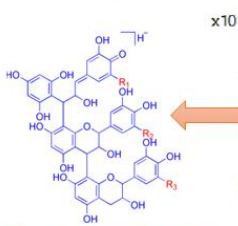


Ethanollic Extracts

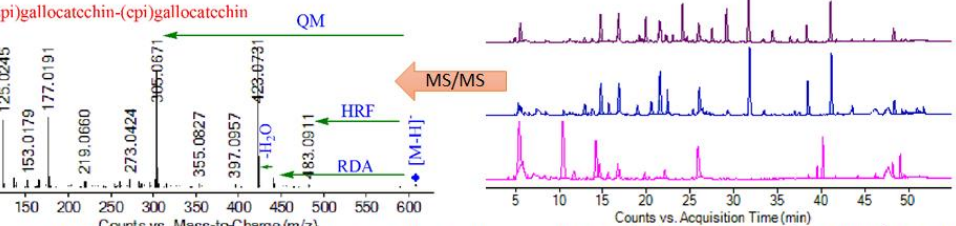


BPC

Some herbal formulations related to Terminalia spp



Identification of compounds



Base Peak Chromatograms of *T. arjuna* plant part

4000 Q-TRAP (Triple Quadrupole Linear Ion Trap) Mass spectrometer



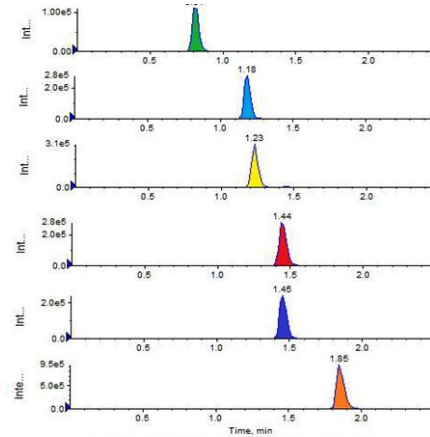
Withania somnifera



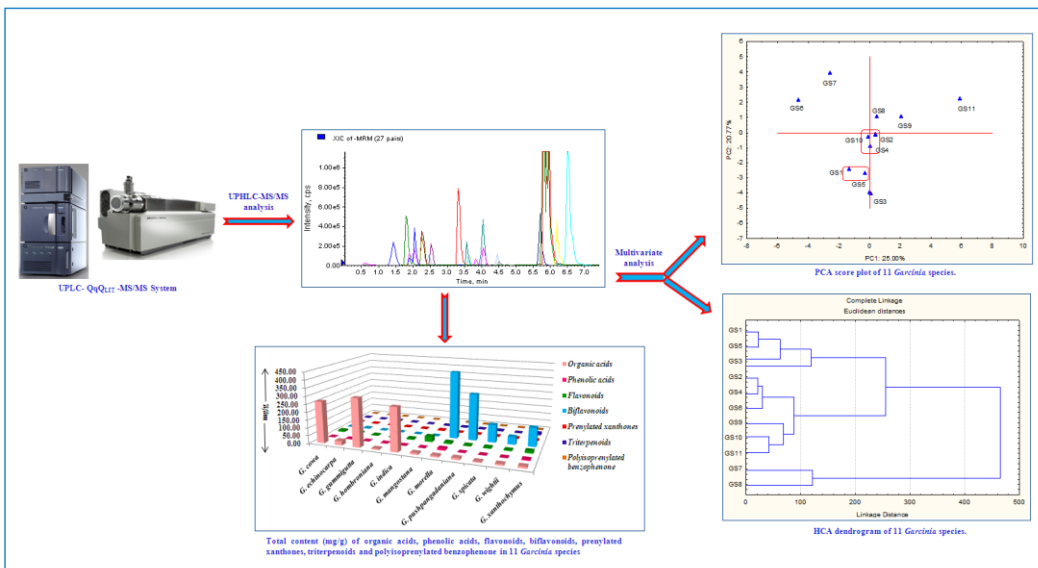
Formulations



Quantitative analysis by UPLC-MS/MS



Extracted ion chromatogram of reference analytes



Total content (mg/g) of organic acids, phenolic acids, flavonoids, diterpenoids, prenylated xanthones, triterpenoids and polyprenylated benzophenone in 11 *Garcinia* species

HCA dendrogram of 11 *Garcinia* species.