Dear Participants,

We have great pleasure and honour in inviting you to participate in this workshop to be held on 9th &10th November, 2017.

About the Institute:

University Institute of Pharmacy & Institute of BSBT established in 2004, is one of the premier Institute in the field of Pharmacy & Biosciences in Uttar Pradesh imparting the best training to biology & Pharmacy graduates. Special emphasis is given to train the students in practical skills.

About the workshop:

The workshop is specially designed for Pharmacy and life science researchers/teachers for getting enriched with various analytical skills: HPLC, HPTLC, FTIR, U.V. Spectrophotometer, Brookefield viscometer, Gel Doc, PCR, ELISA. The topics chosen will be delivered by the experts in the field and will be beneficial to the researchers and beginners.

Eligibility and Registrationn Details:

Faculty/Research Scholars from Pharmaceutical Sciences and Life Sciences

Registration Fees is Rs. 1000/ (includes certificate, kit, lunch, refreshments) No. of registrations is limited to 50. The registration fees must be paid along with registration form through Demand draft in favour of F.O. C.S.J.M.U. Kanpur or cash. No TA/DA will be paid to participants. Accommodation may be arranged in Guest House on payment basis.

Last Date of Registration: 30th October, 2017

Date of confirmation: 1st November

Workshop registration form:

Name:_____

Designation: _____

Name of Institution: _____

Address: _____

Telephone no. _____

Email: _____

Registration fees details: Amount :

DD no. Bank Name:

Signature of Participant:

Signature of Head of Institution :

Conveners: Dr. Nisha Sharma, (Head, Pharmacy)
Dr. Shilpa Kaistha (Microbiology)
Dr. Varsha Gupta (Biotechnology Department)

Co-conveners:
Mrs. Meenakshi Gupta
Mrs. Kalpana
Dr. P.C. Gupta
Mr. Vinod Doharey
Dr. Vishal Chand
Dr. Neerja Srivastava
Dr. Shalini Verma

Contact no.'s: 9415477222, 9450442861, 7704985491 Email: uipcsjmu@gmail.com

UNIVERSITY INSTITUTE OF PHARMACY AND INSTITUTE OF BIOSCIENCES & BIOTECHNOLOGY C.S.J.M.U. KANPUR

Organizes "

TWO DAYS NATIONAL WORKSHOP ON ANALYTICAL INSTRUMENTS"

On 9th and 10th November, 2017

HPTLC; GEL ELECTROPHORESIS; HPLC; ELISA; FTIR; REAL TIME PCR U.V. SPECTROPHOTOMETER;

Chief Patron

Prof. J.V. Vaishampayan

Vice-Chancellor

C.S.J.M. University, Kanpur

HPLC (High performance liquid chromatography)

It is one of its kinds of Chromatographic techniques with high sensitivity i.e. ability to evaluate samples of very minute concentrations like in nano-gram and picogram

This is possible in HPLC analysis due to efficient separation of molecules under pressure over a large surface area. Besides there is also availability of highly sensitive detectors like UV-visible and florescence spectrophotometers, electrochemical detectors etc. But unlike other analytical techniques, HPLC analysis is time taking easy and trouble shooting is very important to run the test smoothly.

This method of chromatography finds vast use in

1. Clinical diagnosis of diseases, disorders.
2. In scientific research for discovery.
3. In pharmaceutical labs for analysis.
4. In food industry for quality control.
5. For standards control by government.
6. For separation of similar molecules.

HPTLC (High Performance thin layer chromatography)

High-performance thin-layer chromatograpl (**HPTLC**) is an enhanced form of thin-lay chromatography (TLC).

REAL TIME PCR (qPCR)

The participants would get an overview of the technique of real time PCR which is used for rapid and sensitive determination and quantitation of nucleic acids in various biological samples.

Researchers working in life sciences, biotechnology, medicine, forensics, diagnostics etc. utilize it in wide range of applications. The technique of Real-time PCR is utilized for both qualitative and quantitative analysis. Unlike conventional PCR, the amplicon in real time PCR is detected as the reaction progresses in real time PCR with product amplification after each cycle.

ELISA

(Enzyme Linked immunosorbent assay)

ELISA is a plate-based assay, enabling detection and quantification of substances as peptides, proteins, antibodies, and hormones. Enzyme immunoassay (EIA), is also used to describe the same technology. ELISAs are done in 96-well (or 384-well) polystyrene plates. These passively bind proteins and antibodies. It is this binding and immobilization of reagents that makes ELISAs so easy to design and perform. Many different forms of ELISA are available which may be utilized for detection of antigen or antibody in a sample. It is widely used in diagnostics.

Gel Documentation system

Isolation of DNA is a prerequisite in many reactions involving its analysis using wide variety of techniques. DNA is used in southern blotting and in genome wide association studies.

Here the participants would learn DNA isolation from blood using a standard phenol-chloroform protocol

Quantitation: Quantitation would be done by using gel documentation system using TAE-agarose gel and also by measuring OD at 260nm using UV-Visible spectrophotometer.. The ratio of absorbance at 260 and 280nm of DNA should be around 1.7-1.9 for a good quality DNA.

FTIR

(Fourier Transform Infrared Spectroscopy)

FTIR Analysis or **FTIR** Spectroscopy, is an analytical technique used to identify organic, polymeric, and in some cases, inorganic materials. The **FTIR Analysis** method uses **infrared** light to scan test samples and observe chemical properties. To obtain an IR spectrum of a solid, a sample is combined with **Nujol** in a mortar and pestle or some other device to make a **mull** (a very thick suspension), and is usually sandwiched between potassium- or sodium chloride plates before being placed in the spectrometer.