Intensive Workshop on Clinical Proteomics

October 24 - 27, 2013
Institute of Bioinformatics, Bangalore

Institute of Bioinformatics (IOB) (http:www.ibioinformatics.org) is a premier center for Proteomics and Computational Biology. IOB has also established a state-of-the-art proteomics facility to discover and validate candidate biomarkers in human diseases including neurological disorders, infectious diseases and cancers.

Scientists at IOB will share their expertise in using high-resolution proteomic technologies to highly motivated young researchers in India through a series of workshops. We have successfully conducted four workshops on high resolution mass spectrometry - based proteomics. Several faculties and students from reputed National Institutes and Universities from India participated in these workshops (http://www.ibioinformatics.org/workshop.php).

This 4-day long intensive workshop will offer a theoretical and practical understanding of high-resolution mass spectrometry-based proteomic technologies and their application to clinical and biological research. Each participant will get hands on training for sample prep and mass spectrometry-derived proteomic data analysis.

Eligibility
Open to students and researchers from academia and industry.
Applications must include a statement of purpose (<100 words) along with their CV.

Registration
Visit http://www.ibioinformatics.org/registration_proteomics.php to register for the workshop. Participants will be selected on first-come, first-served basis. Participants can also reserve their slots by directly contacting the organizers.

Registration fee:
Participants from Academia - Rs. 20,000
Participants from Industry - Rs. 30,000

Focus of the Workshop

- **Principles of mass spectrometry**
- **Sample preparation strategies**
- **Fractionation techniques**
- **Depletion/enrichment strategies**
- **LC-MS/MS analysis**
- **Operation of LTQ-Orbitrap Velos mass spectrometer**
- **Proteomic data analysis**
- **Quantitative proteomics**

Resource Personnel

- **Dr. T. S. Keshava Prasad**
- **Dr. Nandini A. Sahasrabuddhe**
- **Dr. S. K. Shankar**
- **Dr. Ravi Sirdeshmukh**
- **Dr. Aditi Chatterjee**
- **Dr. Ramu Gundimeda**
- **Dr. Rajesh Raju**

A discount of Rs.5000/- will be provided to the participants of a previous workshop at IOB.

Refreshments and lunch will be provided throughout the day.

Applicants can contact organizers for accommodation with an additional cost (Single occupancy Rs.1100/day; Deluxe sharing: Rs.800/day: inclusive of taxes).

Workshop Program

Day 1: Tutorial Lectures
Mass spectrometry-based proteomics
Quantitative proteomics
Hands on training
Sample prep I: In-gel and in-solution digestion
Fractionation strategies - SCX/bRPLC

Day 2: Tutorial Lectures
Introduction to mass spectrometry data analysis
Hands on training
Sample prep II - peptide extraction and iTRAQ labeling
Fractionation: depletion strategies
Introduction to Mass spectrometry data analysis

Day 3: Tutorial Lectures
Analysis of post-translational modifications
Operation of LC-MS/MS (demo)
Multiple reaction monitoring (demo)
Hands on training
Data analysis – quantitative proteomics
Phosphopeptide enrichment

Day 4: Tutorial Lectures
Multipronged proteomic analysis
Biological interpretation of proteomics data (demo)
Introduction to metabolomics
Hands on training
Analysis of phosphoproteomic data
Biological interpretation of proteomics data

Contact
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