



METABOLOMICS 2015

Convenors:
Prof. Utpal Tatu
Prof. Nagasuma Chandra
Prof. H.S. Savithri

January 12-13, 2015
Department of Biochemistry
Indian Institute of Science
Bangalore - 560012

Day 1 : 12th January, 2015

Venue: Biological Sciences Auditorium, IISc

9:00-10:45

Session Chairs: Prof. D.N.Rao, BC, IISc

Prof. Raghavendra Gadagkar, CES, IISc

9:00-9:15

Welcome

9:15-9:45

M.R.N. Murthy, IISc

Structure and Function of PLP dependant enzymes

9:45-10:15

M. Sugumaran, University of Massachusetts

Catecholamine metabolism for cuticular tanning and defense reaction in arthropods and marine organisms

10:15-10:45

Narayan Punekar, IIT Mumbai

Carbon-nitrogen interface of Aspergillusniger metabolism and NADP-Glutamate dehydrogenase

10.45 - 11.00 Coffee break

11:00-1:00

Session Chairs: Prof. Jayabhaskaran, BC, IISc

Prof. H.S.Savithri, BC, IISc

11:00-11:30

Venkat Manohar, ICMS, Chennai

Metabolite profiling – Impact of LCMS and MS/MS Technique

11:30-12:00

Prashant Phale, IIT Mumbai

Preferential Utilization of Aromatic Compounds Over Glucose in Pseudomonas putida CSV86

12:00-12:30

Hemalatha Balaram, JNCASR, Bangalore

Fumarate metabolism in the malarial parasite Plasmodium falciparum

12:30-1:00

Ajit Kamath, Pfizer, India

Gene Family Approach for Drug Discovery

1.00 - 2.00 Lunch & posters



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2:30-3:00

Session Chairs: Prof. A.J.Rao, BC, IISc
Prof. T. Ramasarma, BC, IISc

2:30-3:00

Rudolf Grimm, University of California, Davis, USA

Advancements in Mass Spectrometry in Metabolomics

3:00:3:30

K. Venkatesh, IIT Mumbai

Role of Global Transcriptional Factors in the Anaerobic Growth of Escherichia coli

3:30-4:00

P.N. Rangarajan, IISc

Regulation of carbon metabolism in the methylotrophic yeast, Pichiapastoris

4.00 - 4.15 Break

4:15-5:55

Session Chairs: Prof. P. Kondiah, MRDG, IISc
Prof. M.S.R.Rao, JNCASR

4:15-4:35

Meenakshi Bhat, Centre for Human Genetics, Bangalore

Emerging therapies in lysosomal storage disorders

4:35-4:55

C. Subhash Chandra Bose, National Chemical Lab, Pune

Phosphorylation Induces the Axonal Tau Conformation in Alzheimer's Disease

4:55-5:15

Anindya Roy, IIT Hyderabad

Oxidative Dealkylation by AlkB Family of Enzymes

5:15-5:35

Nagasuma Chandra, IISc

A systems biology study of metabolism in mycobacteria: Insights for drug discovery

5:35-5:55

Utpal Tatu, IISc

Redox Metabolomics in Plasmodium falciparum

LINKS

- Carbohydrates
- Amino Acids
- Lipids
- Nucleic Acids
- Nitrogen & Phosphorus
- Vitamins, Co-Factors & Prosthetic Groups
- Nitrogen Phosphorus Pathway
- Protein Synthesis
- Protein Degradation

Metabolism is essential for the growth and survival of all organisms. It involves the conversion of nutrients into energy and the synthesis of biomolecules. The study of metabolism is crucial for understanding the underlying mechanisms of various diseases and for the development of new drugs.