

Program Schedule

January 10, 2017

09.00 – 09.30 **Registration**

09.30 – 10.30 **Inauguration**

10.30 – 10.45 **Morning Tea**

Session 1 **Concept of Molecular Signaling** 10.45 – 12.55

Chairpersons : Dr. Malini Laloraya & Dr. C. D. Anuradha

- 1.1 **Rakesh Tyagi** Nuclear Receptor PXR: at the crossroads of human health and disease
- 1.2 **C. D. Anuradha** Stem Cell Therapeutics: Hits and Misses
- 1.3 **Malini Laloraya** Reactive Oxygen/Nitrogen Species - the good and the bad!
- 1.4 **Madhulika Dixit** Role of Protein Tyrosine Phosphatase SHP2 in endothelial inflammation
- 1.5 **Surendra Ghaskadbi** Cell signaling molecules in hydra: Insights into evolutionarily ancient functions of signaling pathways
- 1.6 **Sitabhra Sinha** Learning and Memory in the Eukaryotic Cell: Emergence of sensitization and adaptation in intra-cellular signaling

13.00 – 14.00 **Lunch**

Session 2 **Signaling in Parasitic Disease** 14.05 – 15.32

Chairperson : Dr. Rakesh Tyagi

- 2.1 **Nima Namsa** *In silico* mapping of B- and T-cell epitopes of rotavirus proteins
- 2.2 **Siddhartha Jana** Role of Actomyosin dynamics in Virus-Cell Fusion
- 2.3 **Malini Sen** Wnt5a Signaling Promotes Defense against *L. donovani*

Infection

- 2.4 **Parsuraman Jaisankar** A novel spirooxindole inhibits the growth of *Leishmania donovani* parasite both in vitro and in vivo by targeting type IB topoisomerase

15.35 – 17.25 **Poster Session 1 & Tea**

Session 3 **Signaling in Aquatic System** 17.30 – 18.12

Chairperson : Dr. T. Subramoniam

- 3.1 **B. Senthilkumaran** Transcriptional interaction of Pax2 and Wnt5 regulates ovarian development and recrudescence in catfish
- 3.2 **Surjya K. Saikia** Surface of snout is a site of sensory reception in Hilsa, *Tenulosa ilisha* (Hamilton, 1822)
- 3.3 **Nirmalendu Saha** Influence of high environmental ammonia on the production of nitric oxide and expression of inducible nitric oxide synthase in the freshwater air-breathing catfish (*Heteropneustes fossilis*): Possible roles of NFkB and MAPKs

Session 4 **Influence of Chemical Signaling on Cells** 18.14 – 19.18

Chairperson : Dr. Mukul Jain

- 4.1 **Surajit Sinha** Control Localization of Cellular Transporters for the delivery of Antisense Reagents
- 4.2 **Partha Roy** Kaemferol induced protection of pancreatic β -cells by autophagy in a lipotoxic environment
- 4.3 **Pronobesh Chattopadhyay** The regulatory framework of the biotechnology derived molecule

19.20 – 20.00 **Special Talk**

Chairperson : Dr. Shelley Bhattacharya

K. Muralidhar Career and Ethics in Biology Education and Research

20.00 **Dinner**

January 11, 2017

Session 5

Signaling in Plants

09.00 – 10.51

Chairpersons : Dr. A. S. Raghavendra & Dr. Subhra Chakraborty

- 5.1 **Subhra Chakraborty** Disease signaling and biomolecular network in the nucleus: comparative omics identify IRF1 as a major immunity regulator
- 5.2 **P. K. Agarwal** Molecular Signaling in rice and maize for disease resistance and quality traits
- 5.3 **Satya Bhattacharya** Fertilization sheme, plant age, and location strongly regulate hepato-protective efficiency of carlinoside and UGT1A1 gene expression in Pigeon peas (*Cajanus cajan* Mills sp.)
- 5.4 **Niranjan Chakraborty** Nuclear envelope protein, CaSUN1, participates in dehydration by modulating unfolded protein response
- 5.5 **A. S. Raghavendra** Convergence of Signaling Events in Guard Cells during Stomatal Closure by Plant Hormones, particularly at Reactive Oxygen Species and Calcium Channels

10.53 – 11.05 **Morning Tea**

Session 6

Signaling in Metabolic Syndrome

11.07 – 13.27

Chairpersons : Dr. J. F. Dufour & Dr. T. S. Ganesan

- 6.1 **Mukul Jain** Saroglitazar in NASH: Symphony of PPAR? and PPAR? Signaling
- 6.2 **Samir Bhattacharya** Lipid dictates disruption of energy homeostasis through inflammasome that causes insulin resistance
- 6.3 **Tushar Maiti** Nitric oxide a critical gasotransmitter regulating Parkinson disease
- 6.4 **Nihar Ranjan Jana** Impaired protein homeostasis and its rescue in a mouse model of Huntington's disease
- 6.5 **Malbika Datta** Role of miRNAs in promoting delayed wound closure during diabetes
- 6.6 **C. V. Anuradha** Inhibition of GC action reduces metabolic abnormalities in

insulin resistant mice

13.30 – 14.30 Lunch

Session 7 Signaling in Cancer 14.32 – 17.04

Chairpersons : Dr. P. K. Agarwal & Dr. Bandana Chatterjee

- 7.1 Jean Francois Dufour** Effect of regular exercise on the growth of hepatocellular carcinoma
- 7.2 Bandana Chatterjee** Nuclear Receptor Interplay in Prostate Cancer: Roles for the Androgen Axis and Beyond
- 7.3 Prasanta Maiti** Induction of apoptosis by Fe(salen)Cl through caspase-dependent pathway specifically in tumor cells
- 7.4 Ansuman Chattopadhyay** Biogenic silver nanoparticles: anticancer and antimicrobial attributes
- 7.5 T. S. Ganesan** Identification by mass spectrometry of unique phosphoproteins subsequent to signalling through c-ErbB2
- 7.6 Sib Sankar Roy** Metabolic Reprogramming and cancer progression
- 7.7 Arun Bandopadhyay** Mechanism of Mitochondrial Dysfunction in Hypertrophied Cardiomyocytes

17.06 – 17.50 Poster Session 2 and Tea

Session 8 Reproductive Signaling 17.52 – 19.18

Chairpersons : Dr. K. Muralidhar & Dr. G. Pradeep Kumar

- 8.1 G. Pradeep Kumar** Signalling cascades during germline stem cell differentiation in mouse testis
- 8.2 Subeer Majumdar** Deciphering the cell signaling modulators governing germ cell proliferation within testis
- 8.3 Chandan Goswami** TRPV4 is endogenously expressed in vertebrate spermatozoa and regulates intracellular calcium in human sperm

8.4 Asamanja Chattoraj A study of Ovarian Maturation under Different Photic Conditions in Zebrafish (*Danio rerio*): Inhibition of Gonadotropin Inhibitory Hormone (GnIH) in the Brain-Pituitary-Reproductive Axis is Influenced by Melatonin

19.20 – 20.00 Special Talk

Chairperson : Dr. Surendra Ghaskadbi

Gaurangi Maitra Winking in the dark: Brand Lamarck vs. Brand Darwin

20.00 Dinner & Cultural Program

January 12, 2017

Session 9 Signaling Defects and Disease 09.00 – 11.13

Chairpersons : Dr. Arun Bandopadhyay & Dr. Shelley Bhattacharya

9.1 Ilora Ghosh Probable Signaling Pathway in Cadmium Ingested Mice Liver

9.2 Palanivel Gajalakshmi Stem Cell Therapy in Liver Fibrosis: Liver Stem Cells Induce Apoptosis of Activated Hepatic Stellate Cells

9.3 J. Tamilselvan Effects of insulin signaling on mitochondrial turnover by targeting autophagy and mitochondrial biogenesis Parkinson disease

9.4 Shelley Bhattacharya Metal-induced Signals of Autophagy and Apoptosis in Adult Rat Hepatic Stem Cells

9.5 M. Balasubramanyam Miscommunication and Short-circuit Signaling between gut microbiome and humans with special reference to type 2 diabetes

9.6 Amitava Das Molecular Signaling During Hepatocyte-Hepatic Stellate Cell Interactions: Targets for Anti-Fibrotic Therapeutics

11.15 – 11.30 Morning Tea

Session 10 **Signaling Cascade** 11.32 – 12.58

Chairperson : Dr. Rajasekaran N. S.

- 10.1 Suman Dasgupta** LPS induced activation of TLR4-mTORC1-Akt signaling cascade compelled macrophage foam cell formation
- 10.2 Suvro Chatterjee** An Omics approach to understand pro-vascular signaling under low gravity
- 10.3 Ashish Bhattacharjee** 15-Lipoxygenase (15-LO) dependent and independent regulation of Monoamine Oxidase-A (MAO-A) gene expression and function in IL-13-activated cells
- 10.4 Rajasekaran N. S.** Novel Redox Mechanisms for Pathological Cardiac Remodeling and Diastolic Dysfunction

13.00 – 14.00 Lunch

Session 11 **Young Scientist Presentation** 14.00 – 16.00

Chairperson : Dr. Nirmalendu Saha

Jury Dr. Jean Francois Dufour
Dr. Shelley Bhattacharya
Dr. A. S. Raghavendra

Young Scientist Oral Presentations to be scheduled

16.00 – 16.30 Prizes for Poster and Oral Presentations

16.30 – 17.00 Closing Remarks – Dr. Suvro Chatterjee