14th FAOBMB Congress and 84th Annual Meeting of SBC (I)

Current Excitements in Biochemistry and Molecular Biology for Agriculture and Medicine

Centre for Cellular and Molecular Biology, Hyderabad, India

27 – 30 November 2015

CSIR-CCMB

PROGRAMME

Time (h)	Day 1; Friday, 27 November 2015		
11.00 - 13.00	**Registration**		
12.30 - 13.30	***Lunch***		
13.30 – 14.00	**Inauguration**		
14.00 – 14.05	**Announcement of President Elect, FAOBMB**		
14.05 - 14.45 14.45 - 15.25	Plenary Lecture 1: **Kanury V S Rao**, India (**Takashi Murachi Memorial Lecture**) *Deciphering the host-pathogen interplay in human macrophages infected with Mycobacterium tuberculosis* *Plenary Lecture 2:* **Shubha Tole**, India (**Kunio Yagi Lecture**) *Towards a Blueprint for Building the Brain*		***Chairperson:*** **Kiyoshi Fukui,** Japan
15.25 - 15.55	***Tea/Coffee***		
16.00 - 18.00	**Protein Folding and Disease** *Chairperson:* **Masatsune Kainosho**, Japan	**Developmental Biology** *Chairperson:* **Polani B. Seshagiri**, India	**Epigenetics and miRNA** *Chairperson:* **K. Satyamoorthy**, India
16.00 - 16.30	**Manajit Hayer-Hartl**, Germany *The complex chaperone machineries for the folding and assembly of RuBisCO*	**L S. Shashidhara**, India *A comparative genomic analysis of targets of Hox protein Ultrabithorax amongst distant insect species: new insights into evolution of halteres in Drosophila*	**Rakesh K. Mishra**, India *Functional Compartmentalization of the Genome and Epigenetic Regulation of Genes*
16.30 - 17.00	**Kunihiro Kuwajima**, Japan *The problem of protein folding*	**Subramaniam Ganesh**, India *Mitochondrial homeostasis and neurodegeneration: Insight from Lafora disease*	**Tapas Kundu**, India *Lysine Acetylation and Arginine Methylation of Histones are critical for Neural Differentiation and Memory*
17.00 - 17.30	**Jayant Udgaonkar**, India *Mechanism of misfolding of the prion protein*	**Surendra Ghaskadbi**, India *Identification and characterization of BMP inhibitors Noggin and Gremlin from Hydra*	**Sanjeev Khosla**, India
17.30 - 18.00	**Zengyi Chang**, China *Understanding the Unusual Biological Function and Action Mechanism of the acid resistant molecular chaperone HdeA: from in vitro to in vivo*	**Anu Bashamboo**, France *Cellular Models to Understand Cell Fate Choice During Human Sex-Determination*	**Ritu Kulshreshtha**, India *Hypoxic Regulation of MicroRNAs: Implications for Cancer Biology*
18.05 - 18.35	*SBC(I) Award*: **B. J. Rao**, India (**Prof. M. Shadakshara Swamy Endowment Lecture Award**) *Genome Dynamics: Chromosome Territories & Replication Forks are dynamically regulated in mammalian genomes*		***Chairperson:*** **Ch. Mohan Rao,** India
18.35 – 19.30	**Poster / EC meeting of SBC(I)**		
20.00 - 21.00	***Dinner***		

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Time (h)	Day 2; Saturday, 28 November 2015		
09.15 - 09.55 09.55 - 10.35	*Plenary Lecture 3*: **Ulrich Hartl**, Germany (**IUBMB Lecture**) *Molecular Chaperones: Guardians of the Proteome* *Plenary Lecture 4*: **David Craik**, Australia (**FAOBMB Award for Research Excellence**) *Discovery and applications of cyclic peptides in drug design*		***Chairperson:*** **Andrew H.-J. Wang**, Taiwan
10.35 - 13.30	**Agriculture** ***Chairperson:* Samit Adhya,** India	**Cardiovascular and Metabolic Diseases** ***Chairperson:* K. Muniyappa,** India	**Infection and Disease** ***Chairperson:* Hansel Fletcher,** USA
10.35 - 11.05	**Appa Rao Podile**, India *Chitooligosaccharides and immunity in plants*	**B. K. S. Sastry**, India *Clinical perspective of translational research in cardiovascular diseases*	**Aruni Wilson**, USA *Community microbial consortia of yet-un-cluturable bacteria and their implications in health and disease*
11.05 - 11.35	**Ramesh V. Sonti**, India *Induction and suppression of host innate immunity in plant-pathogen interactions*	**Shantanu Sengupta**, India *Understanding Coronary Artery Disease in India using multilayer–omics analysis*	**Joon Kim**, Korea *Ribosomal proteins play important roles in DNA repair, cancer and Candida infection with respect to cellular stress*
11.35 - 12.00	***Tea/Coffee Break***		
12.00 - 12.30	**Rajeev K. Varshney**, India *Next generation genomics for crop improvement-some examples in chickpea*	**P. S. Dhandapany**, USA *Cardiomyopathies:From Genes to Therapies*	**Leann Tilley**, Australia *Targeting the Cell Stress Response of Plasmodium Falciparum to Overcome Artemisinin Resistance*
12.30 - 13.00	**Ajit Kumar Shasany**, India *Channelling of intermediates for secondary metabolite biosynthesis: essential for metabolic engineering?*	**Nitish R. Mahapatra**, India *Chromogranin A Gly364ser variant profoundly alters the risk for hypertension in human populations via modulation of endothelial nitric oxide levels*	**Kim Chu-Young**, Singapore *Structural Biology of Enzymes Involved in NaturalProduct Antibiotic Biosynthesis*
13.00 - 13.15	*__Veena S. Anil__, Bangalore *Inherent and induced mechanisms of Late Blight resistance in potato crop*	*__M. Balasubramanyam__ , India *Excitements versus Deliverables of Omics Advancements in Diabetes*	**Apurba Kumar Sau**, India *Structural and Functional Insights into the Regulation of Helicobacter pylori Arginase Activity by an Evolutionary Non-conserved Motif*
13.15 - 13.30	*__Sharmila Chattopadhyay__, India Interaction of Glutathione with ethylene to control necrotrophic fungal infection in crop plant	*__Shakila Srikumar__, Malaysia *Hyperhomocysteinemia and Cardiovascular Disease: The Process and Prevention*	
13.30 - 14.45	***Lunch/Poster***		
14.45 - 15.15 15.15 - 15.45	*SBC(I) Award:* **G. Suresh Kumar, India (C. R. Krishna Murti Award)** *Nucleic acid interaction of small molecules: From lac repressor protein fragments, mitomycins to natural alkaloids* *SBC(I) Award:* **Subrata Chattopadhyay, India (P. B. Rama Rao Memorial Award)** *A Tale of Three Molecular Sisters*		***Chairperson:*** **Ch. Mohan Rao,** India
3.50 - 18.45	**Chromosome and Reproductive Biology** ***Chairperson:* Subramaniam Ganesh, India**	**Cancer Biology** ***Chairperson:* LS. Shashidhara, India**	**IUBMB Education Session** ***Chairperson:* Koh Siok Im**
15.50 - 16.20	**Polani B. Seshagiri**, India *Cellular and Molecular Control of Blastocyst Hatching*	**P. Kondaiah**, India *Role of Insulin like Growth Factor Binding Protien-2 in the pathogenesis of Glioblastoma*	**D. Balasubramanian**, India *Popularization of Science as an additional/alternate career*
16.20 - 16.50	**Tatsuo Fukagawa**, Japan *Molecular architecture of vertebrate centromeres*	**Rana P. Singh**, India *An adjuvant for enhancing radiotherapeutic efficacy in prostate cancer*	**Martin Stone**, Australia *Alternative career paths*
16.50 - 17.15	*Tea/Coffee Break*		
17.15 - 17.45	**Rima Dada**, India *Sperm DNA damage: Clinical Implications*	**Kumaravel Somasundaram**, India *Tumor-stroma interactions in glioblastoma: Identification of a novel angiogenic factor*	**Gracia Fe B Yu**, Philippines *From basic research to livelihood: a Ph.D as social entrepreneur*
17.45 - 18.15	**Rajender Singh**, India	**Sagar Sengupta**, India *The role of RECQL4 helicase, the protein mutated in Rothmund Thomson Syndrome, in mitochondrial functions*	**Hansel Fletcher**, USA *Diversity in the biomedical workforce – future anticipated career opportunities*
18.15 - 18.45	**Deepak Modi**, India *HOXA10 Functions in Endometrial Implantation and Decidualization*	**Suresh Mathivanan**, Australia *Intercellular transfer of mutant β-catenin via exosomes activates Wnt signalling pathway in the tumor microenvironment*	- Discussion
18.45 - 19.45	**General Body Meeting of SBC(I)**		
19.30 - 20.15	***Cultural Programme***		
20.30 - 21.30	***Dinner***		

** Short presentation (15 min.)*

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Time (h)	Day 3; Sunday, 29 November 2015		
09.25 - 10.05	Plenary Lecture 5: **Giulio Superti-Furga**, Austria (**FEBS Lecture**) *Molecular networks, drug action and genome-informed medicine*		***Chairperson:*** **Ulrich Hartl,** Germany
10.10 - 13.10	**DNA Damage, Recombination and Repair** ***Chairperson:* Tatsuo Fukagawa**, Japan	**Emerging Technologies** ***Chairperson:* Kumaravel Somasundaram**, India	**Young Scientist Award Session** ***Chairperson:* Sheila Nathan,** Malaysia
10.10 - 10.40	**K. Muniyappa**, India *Molecular Insights into Meiotic Chromosome Pairing from Single Molecule Analysis*	**Erich Gnaiger**, Austria *Differences in mitochondrial function in brain microsamples in health and disease revealed by high-resolution respirometry*	**Urmi Dhagat**, Australia *The molecular basis of Interleukin-3 receptor signaling and strategies for targeting IL-3 activity in Acute Myeloid Leukaemia*
10.40 - 11.10	**Anindya Roy**, India *RecA protein stimulates demethylation of DNA*	**Ashok Gopinath**, Singapore *Recent Progresses in Genomics and their Applications in Oncology*	**Victor Anggono**, Australia *Molecular Mechanisms of AMPA Receptor Trafficking*
11.10 - 11.40	***Tea/Coffee Break***		
11.40 - 12.10	**Manas Kumar Santra**, India *Dedicated DNA damage checkpoint protein FBXO31 facilitates p53-mediated growth arrest following genotoxic stresses*	**Stephen Rudd,** Singapore	Oral Presentation from Selected Abstracts (6) **Sathish Kumar Ramalingam,** India *Next Generation DNA Barcoding for the Authentication of Herbal Admixtures*
12.10 - 12.40	**Akira Shinohara**, Japan *Prophase pathway for removal of a meiosis-specific cohesin from arms of chromosomes duringlate prophase I of meiosis*	**Jay Fox**, USA *Proteomic Analysis of Human Blister Fluids Following Envenomation by Three Snake Species: Differential Markers for Venom Mechanisms of Action and Potential for Personalized Therapeutic Intervention*	**B. Padmanabhan**, India *Structure based drug discovery of small molecules for the BRD2 bromodomain associated with cancer and neurodegenerative diseases*
12.40 - 13.10	**Mrinal Kanti Bhattacharya**, India *The non-redundant homologous recombination pathway of malaria parasites is essential for DNA double strand break repair*	**Prathap Naidu**, India *Ion S5™ and Ion S5™ XL Next-Generation Sequencing Systems for Targeted Sequencing*	**Kartik Sunagar**, India *The rise and fall of an evolutionary innovation*
13.10 - 14.25	***Lunch /Poster***		
14.25 - 15.05 15.05 - 15.45	*Plenary Lecture 6*: **Sathees C. Raghavan**, India (**FAOBMB Lecture**) *Homology and Enzymatic Requirements of an Alternate, Microhomology Dependent NHEJ and its Relevance in Generation of DNA Deletions and Rearrangements* *Plenary Lecture 7:* **Tej P. Singh** (**GN. Ramachandran Lecture**) *Structural basis of action of peptidoglycan recognition proteins and their possible applications as protein antibiotics*		***Chairperson:*** **David Craik,** Australia
15:45 - 16.15	**Tea/Coffee Break**		
16.15 - 18.15	**Structural Biology** ***Chairperson:* Manajit Hartl**, Germany	**Computational and System Biology** ***Chairperson:* Jay Fox**, USA	**Mitochondria in Health and Disease** ***Chairperson:* Keshav K. Singh**
16.15 - 16.45	**Masatsune Kainosho**, Japan *Recent Progress in the Selective SAIL Method for Studying Structures and Dynamics of Proteins and Protein Complexes*	**Alok Bhattacharya**, India *Whole Genome based analysis of Bacterial Evolution*	**Samit Adhya**, India *Mitochondrion-regulated mTORC activation of satellite cell proliferation: role of microRNAs*
16.45 - 17.15	**R. Sankaranarayanan**, India	**Vinod Scaria**, India *Personal Genomes to precision Medicine*	**Yau-Huei Wei**, Taiwan *Dysregulation of Ca^{2+} Homeostasis Caused by Dysfunction of Mitochondria-associated ER membranes Contributes to Insulin Insensitivity and Diabetes*
17.15 - 17.45	**R. Manjunatha Kini**, Singapore (Y) *Design of a Novel, Highly Selective Factor XIa Inhibitor from Banded Krait (Bungarus fasciatus) Venom*	**Leelavati Narlikar**, India	**Patrick D'Silva**, India *Uncovering the role of ISCU protein in the Fe/S cluster biogenesis: Implications in the development of mitochondrial myopathy*
17.45 - 18.15	**K.V.R. Chary**, India *βγ-crystallins: Intrinsic Order and Disorder*	**Shailza Singh**, India *Paradoxical components in Biological circuits and Negative Autoregulation of Transcriptional Factors: A Systems-theoretic model in Leishmaniasis*	**Naresh B.V. Sepuri**, India *Import of Cytosolic tRNAs into Mammalian Mitochondria*
18.30 - 19.30	***Cultural Programme***		
20.00 - 21.00	***Dinner***		

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Time (h)	Day 4; Monday, 30 November 2015		
09.25 - 10.05	*Plenary Lecture 8:* **Keshav K. Singh,** USA (**Jisnuson Svasti Lecture**) *MipiGenetic and MipiGenomic: Integration of mitochondria-induced cellular mayhem at epigenetic and genetic level*		***Chairperson:*** **Yau-Huei Wei,** Taiwan
10.10 - 13.10	**Alternate Model System for Human Disease** ***Chairperson:* William Y Tsang**, Canada	**Ancient and Traditional Medicine in Modern Context** ***Chairperson:* P. Kondaiah**, India	**Evolutionary Biology** ***Chairperson:* G. Kumaramanickavel**, India
10.10 - 10.40	**John Mercer**, USA *A multilevel approach to inherited sarcomeric cardiomyopathies*	**Bhusan Patwardhan**, India *Ancient and Traditional Medicine in Modern Context*	**Marie Allen**, Sweden *Novel tools for Forensic DNA testing*
10.40 - 11.10	**Sridhar Sivasubbu**, India *Non-Protein Coding RNA Based Regulation of Vascular Development in Zebrafish*	**K. Satyamoorthy**, India *Prakriti Relationship to DNA Methylation Differences for Phenotype Descriptions*	**B. Venkatesh**, Singapore *The slow -evolving genome of elephant shark: a valuable reference genome*
11.10 - 11.40	***Tea/Coffee Break***		
11.40 - 12.10	**C. Sachidanandan**, India *From Fish to Men : drugging Iron Regulatory Disorders*	**Padma Venkat**, India	**Gyaneshwer Chaubey**, Estonia *Migration, admixture and assimilation: case of Jewish and Parsi populations in India*
12.10 - 12.40	**Chiranjib Chakraborty**, South Korea *Zebrafish model: an Absolute Animal Model to Study in vitro Drug Discovery, Different Diseases Mechanism and miRNA Research*	**Bhavana Prasher**, India *Ayurgenomics: Exploring the genomic basis of Ayurveda principles for development of predictive and personalized medicine*	**Kamani Tennekoon**, Sri Lanka *Maternal lineages of major ethnic groups in Sri Lanka including the Vedda population*
12.40 - 13.10	**Upendra Nongthomba**, India *Indirect flight muscles of Drosophila as a model system to study myogenesis and myopathies*	**Mitali Mukerjee**, India *Ayurgenomics : An integrative genomics approach for partitioning the human genome variability for stratified medicine*	**Heui Soo Kim**, South Korea *Alternative Splicing and Transcriptional Regulation of Functional Genes by Transposable Elements*
13.10 - 14.25	**Lunch/Poster**		
14.25 - 15.05	*Plenary Lecture 9:* **Ikuro Abe**, Japan (**Osamu Hayaishi Lecture**) *Engineered Biosynthesis of Medicinal Natural Products*		***Chairperson:*** **Tej P. Singh**, India
15.10 - 16.40	**Eye Disease** ***Chairperson:* Kamani Tennekoon**, Sri Lanka	**Nanotechnology and Stem Cell** ***Chairperson:* John Mercer**, USA	**Neurobiology** ***Chairperson:* Chiranjib Chakraborty,** South Korea
15.10 - 15.40	**William Y Tsang**, Canada *Characterization of NPHP5, A Ciliary Protein Mutated in Eye Disease*	**Rama Shanker Verma**, India *Hybrid Tissue Engineered scaffold for Fabrication of a Bioprosthetic Heart Valve*	**Kiyoshi Fukui**, Japan *Chiral Science and Pathophysiology of Amino Acid Metabolism: regulation of human D-amino acid oxidase gene expression and implication for human psychiatric disorders*
15.40 - 16.10	**G. Kumaramanickavel**, India *Ophthalmic Genomics: Current Trends and its Applications in Clinical Practice*	**Ambarish Ghosh**, India *Biological applications with magnetic nanoswimmers*	**G. Venkatasubramanian**, India *Translational Implications of Neuroimmune - Neuroplastic Interactions in Schizophrenia: Insights from Imaging Genetics*
16.10 - 16.40	**P. Sundaresan**, India *Ocular Disease Gene discovery*	**George Thomas**, India	**Ramakrishnan Kannan**, India *Cellular pathogenesis of Spatacsin and Spastizin in autosomal recessive (AR) hereditary spastic paraplegia (HSP)*
16.40 – 17.10	***Tea/Coffee Break***		
17.10 - 18.00	**Closing Session**		