

BioAnveshana-2024

(Imagine & Innovate)

International conference on
Frontiers in Basic Biology, Biotechnology and Bioinformatics

15 - 18 February 2024

Program-Schedule

Day 1: 15th Feb 2024 (Thursday)

08:00 - 09:00 Registration

09:00 - 09:20 Inauguration

Inaugural Session (Chair: Dr. B. J. Rao, Vice Chancellor, University of Hyderabad)

09:20 - 09:50



Special lecture I

Dr. B. J. Rao, Vice Chancellor, University of Hyderabad,
Hyderabad, India

How does Chemistry become Biology?

09:50 - 10:20



Special lecture II

Dr. Rajesh S. Gokhale, Secretary, DBT, Ministry of Science
and Technology, Govt. of India

10:20 - 10:50



Special lecture III

Dr. D Nageshwar Reddy, Padma Bhushan Awardee
Chairman, Asian Institute of Gastroenterology (AIG),
Hyderabad, India

AI in healthcare – is it going to be a reality?

10:50 – 10:55 Vote of Thanks

10:55 – 11:20 Group Photo (In front of SLS) – Tea Break

Drug development, Vaccines and Industrial Biotechnology

(Chairs: Dr. Anand K. Kondapi, University of Hyderabad and Dr. N. Prakash Prabhu,
University of Hyderabad)

11:20 – 11:50



Plenary talk

Dr. Sangita Mukhopadhyay, CDFD, Hyderabad, India

A novel subunit vaccine to ameliorate tuberculosis-associated
diabetic complications

11:50 - 12:20



Plenary talk

Dr. Rajkumar Rajagopal, Dr. Reddy's laboratories, Hyderabad, India

Biomimetic molecular imprinting: Synthesis and Applications

12:20 - 12:50



Plenary talk

Dr. Vikas Kumar, Dr. Reddy's Biologicals, Hyderabad, India

Biosimilars Development Journey

12:50 - 14:00

Lunch Break

14:00 - 14:20



Invited talk

Dr. Suresh K Chintalapati, Mabgenex, Carlsbad, USA

The Symphony of Life: Composing Your Own Melody

14:20 - 14:40



Invited talk

Dr. Anthony Addlagatta, CSIR-Indian Institute of Chemical Technology, Hyderabad, India

Ribosome exit tunnel: critical target for drug development

14:40 - 15:00



Invited talk

Dr. Mohan CD, CSIR-Indian Institute of Toxicology Research, Lucknow, India

How BAD is a good target?

15:00 - 15:20

Tea Break

15:20 - 16:20

Oral session (Session I) (SLS Auditorium)

16:30 - 18:00

Poster session

18:15 - 19:30

Ms. Kamakshi Ambatipudi Violin Solo Concert followed by Dinner

Day 2: 16th Feb 2024 (Friday)

Microbial, Plant and Animal Biotechnology

(Chairs: **Dr. A. S. Raghavendra**, University of Hyderabad and **Dr. Appa Rao Podile**, University of Hyderabad)

09:00 - 09:30



Plenary talk

Dr. Anil K Tripathi, Institute of Life Sciences, Banaras Hindu University, Varanasi, India

Understanding and engineering of carotenoid biosynthetic pathway for the production of phytochemicals in a non-photosynthetic rhizobacterium

09:30 - 10:00



Plenary talk

Dr. Ashwani Pareek, National Agri-Food Biotechnology Institute, New Delhi, India

Ensuring food security in the era of climate change

10:00 - 10:30



Plenary talk

Dr. Martin Hagemann, University of Rostock, Rostock, Germany

Cyanobacterial carbon metabolism - Regulation and application

10:30 - 10:50

Tea Break

10:50 - 11:20



Plenary talk

Dr. Subeer Majumdar, Gujarat Biotechnology University, Gujarat, India

Biotechnology based solutions for reducing cost of therapeutic proteins and development of first cattle SNP chip of India

11:20 - 11:40



Invited talk

Dr. Gopaljee Jha, National Institute of Plant Genome Research, New Delhi, India

A multifaceted role of prophage tail protein of *Burkholderia* bacteria during endophytic growth and plant protection

11:40 - 12:00



Invited talk

Dr. Chandra Nayaka S., (ICAR), University of Mysore, Mysore, India

Pearl millet: Food for the future world- Importance, biotic constraints and their management

12:00 - 13:00

Oral session II (Seminar Hall)

Oral session III (Auditorium)

13:10 - 14:00

Lunch Break

14:00 - 15:00



Distinguished lecture (Chair: Prof. B. J. Rao)

Sir. Prof. Richard J Roberts, Nobel Laureate
CSO, NEB, USA

The Path to the Nobel Prize

Live streaming: <https://www.youtube.com/@DoBBUoH>

15:00 - 15:20

Tea break

Genomics, proteomics and metabolomics

(Chairs: Dr. Martin Hagemann, University of Rostock and Dr. K. S. Rangappa, University of Mysore)

15:20 - 15:50



Plenary talk

Dr. Partha P. Majumder, John C. Martin Centre for Live Research & Innovations and Indian statistical Institute, Kolkata, India.

Celebrating human diversity to attain "peace, justice and strong institutions

15:50 - 16:20



Plenary talk

Dr. Iwane Suzuki, University of Tsukuba, Tsukuba, Japan

Development of Artificial sensor for regulating gene expression in Cyanobacteria

16:20 - 16:50



Plenary talk

Dr. Ganesh Nagaraju, Indian Institute of Science, Bengaluru, India

Homologous recombination and its regulation in mammalian cells

16:50 - 17:10



Invited talk

Dr. Yu Kanesaki, Shizuoka University, Shizuoka, Japan

Strain heterogeneity and adaptive laboratory evolution of a cyanobacterium *Synechococcus elongatus* PCC 7942

17:10 – 17:30

Tea break

17:30 - 17:50



Invited Talk

Dr. P. V. Shivaprasad, National Centre for Biological Sciences, Bengaluru, India

Histone variant H4.V: a gatekeeper to salt stress transcriptome

17:50 – 18:10



Invited Talk

Dr. Sreenivasulu Kurukuti, University of Hyderabad, Hyderabad, India

Epigenetic control of gene expression by chromatin supercoiling during lactogenic differentiation of mouse memory epithelial cells

18:10 – 18:30



Invited Talk

Dr. Niyaz Ahmed, University of Hyderabad, Hyderabad, India

Genomic epidemiology of antimicrobial resistance and virulence traits in pathogenic bacteria

18:30 - 20:00 Cultural program “Kaleidoscope of Cultures” at Amphi theatre, followed by dinner

Day 3: 17th Feb 2024 (Saturday)

Synthetic Biology and Biofuels

(Chairs: Dr. Iwane Suzuki, University of Tsukuba and Dr. J. S. S. Prakash, University of Hyderabad)

9:00 - 9:30



Plenary talk

Dr. Attipalli R. Reddy, University of Hyderabad, Hyderabad, India

Biofuels for energy independence

9:30 – 10:00



Plenary talk

Dr. Fikret Mamedov, Uppsala University, Uppsala, Sweden

Photosynthetic Hydrogen Production

10:00 - 10:20



Invited talk

Dr. A. Gangagni Rao, CSIR-Indian Institute of Chemical Technology, Hyderabad, India

The significance of high rate biomethanation technology in the context of growing demand for compressed biogas (CBG)

10:20 - 10:40



Invited talk

Dr. Pramod P Wangikar, Indian Institute of Technology, Mumbai, India

Metabolite signatures as new severity biomarkers for Type 2 Diabetes mellitus and its complications

10:40 – 11:00



Invited talk

Dr. Dharam Singh, Institute of Himalayan Bioresource Technology, Palampur, India

Industrially Important L-asparaginase from Himalayan Niches: A tale of an Extremozyme bioprospection

11:00 - 11:20



Invited talk

Dr. Sukanta Mondal, ICAR-National Institute of Animal Nutrition and Physiology, Bengaluru, India

CRISPR/Cas9 guided gene editing for augmenting early embryonic survival

11:20 – 11:40 Tea break

Computational Biology and Bioinformatics

(Chairs: Dr. H. A. Nagarajaram, University of Hyderabad and Dr. Vivek Thakur, University of Hyderabad)

11:40 - 12:10



Plenary talk

Dr. Torsten Semmler, Robert Koch Institute, Berlin, Germany
How Bioinformatics Research can contribute to an effective Genomic Surveillance of Public Health relevant Pathogens.

12:10 - 12:30



Invited talk

Dr. Tarini S Ghosh, Indraprastha Institute of Information Technology, New Delhi, India
Cross body site communications between the oral and gut microbiome: A data driven investigation.

12:30 - 12:50



Invited talk

Dr. Manjari Kiran, University of Hyderabad, Hyderabad, India
Inefficient splicing of long non-coding RNAs is associated with higher transcript complexity in human and mouse

12:50 - 14:00 **Lunch Break**

Pathogen Biology

(Chairs: Dr. Kota Arun Kumar, University of Hyderabad and Dr. Suresh Yenugu, University of Hyderabad)

14:00 - 14:30



Plenary talk

Dr. Sisinthy Shivaji, LVPEI, Hyderabad, India
Implications of the Gut microbiome in disease of the cornea, uvea, and retina of the human eye

14:30 - 15:00



Plenary talk

Dr. Uday Bandyopadhyay, Bose Institute, Kolkata, India
Novel apurinic/apyrimidinic nuclease activity of PfAlba3, an Alba domain protein in *Plasmodium falciparum*

15:00 - 15:30



Plenary talk

Dr. Suresh Kuchipudi, University of Pittsburgh, USA
Evolutionary and Public Health Implications of SARS-CoV-2 Circulation in Animals

15:30 - 15:50 **Tea Break**

15:50 - 16:10



Invited talk

Dr. Vivek Singh, LVPEI, Hyderabad, India

Cell-based therapy and 3D printing in corneal regeneration and wound Healing: Next generation approach

16:10 - 16:30



Invited talk

Dr. Masayuki Hashimoto, National Cheng Kung University, Taiwan

Prevention of Shiga toxin production in enterohemorrhagic *Escherichia coli*

16:30 – 16:50



Invited talk

Dr. Ching-Hao Teng, National Cheng Kung University, Taiwan

Unraveling the Impact of Periplasmic Protease Prc in *Escherichia coli* Pathogenesis

16:50 – 17:10



Invited talk

Dr. Sunanda Bhattacharyya, University of Hyderabad, Hyderabad, India

Chaperoning DNA repair: Usual protein, unusual function

17:10 – 17:30

Tea Break

17:30 - 18:30

Poster Session followed by dinner

Day 4: 18th Feb 2024 (Sunday)

Neurological disorders and medical Biotechnology

(Chairs: Dr. Prakash Babu P, University of Hyderabad and Dr. Torsten Semmler, Robert Koch Institute)

09:00 - 09:30



Plenary talk

Dr. Ishwariya Venkatesh, CCMB, Hyderabad, India

Decoding the molecular blueprint for central nervous system regeneration

09:30 - 10:00



Plenary talk

Dr. Saikat Chowdhary, CCMB, Hyderabad, India

Unravelling the molecular transitions in nucleators for actin cytoskeleton polymerization

10:00 - 10:30



Plenary talk

Dr. Kensuke Ikenaka, Osaka University, Japan

Pathomechanisms of Parkinson's disease and the development of the therapeutics

10:30 - 10:50

Tea Break

10:50 - 11:10



Invited talk

Dr. Jee Hyun Kim, Deakin University, Australia

Towards a biobehavioral understanding of methamphetamine use disorder: An interplay of psychiatric, cognitive, and genetic factors

11:10 - 11:30



Invited talk

Dr. Parul Mishra, University of Hyderabad, Hyderabad, India

Ubiquitin Symphony: Harmony and Discord in Proteostasis

11:30 - 11:50



Invited talk

Dr. Bhavani Shankar Sahu, NBRC, Gurugram Haryana, India

How ER stress impedes regulated exocytosis: Cues from Interorganellar crosstalk

11:50 - 12:10



Invited talk

Dr. Harish Kumar, SERB, Ministry of Science and Technology, India

12:10 - 13:10

Oral session IV (Auditorium)

Oral session V (Seminar Hall)

13:10 - 14:10

Lunch Break

14:10 - 15:30

Poster session

15:30 - 16:00

Tea Break

16:00 - 17:00

Valedictory session

