

Scientific Program

Day 1: Wednesday, 2nd November 2022

Registration:

8:30 A.M. – 9:00 A.M.

SESSION I: GENETICS AND EPIGENETICS OF HUMAN DISEASES

Session In-Charge: Dr. Meenakshi Sharma, ACBR

TIME: 9:00 A.M. - 10:30 A.M.

Chair: Prof. Namita Aggarwal, Dept. of Zoology, DU and Prof. Vani Brahmachari, ACBR, DU		
PL-1	Vani Brahmachari, ACBR, DU: The eloquent language of epigenetics; Our efforts at understanding its alphabets & amp; grammar	9:00 am - 9:30 am
IL-1	Chandra Shekhar, CCMB: Trophoblast Stem cell derivation and Blastoid generation from pluripotent stem cells follow competing molecular trajectories	9:30 am - 9:55 am
IL-2	Debabrata Biswas,, CSIR-IICB: Understanding of Eukaryotic Transcriptional Regulatory Mechanisms Involving Super Elongation Complex and Its Implications in MLL Fusion-mediated Leukemogenesis	9:55 am - 10:20 am
OP-1	Sakshi Sharma ACBR, DU: Elucidating the functional relevance of Sin3B spliced variants in pathogenesis of Oral Squamous Cell Carcinoma	10:20 am - 10:30 am

TEA BREAK

10:30-11:00 A.M.



Dr. B.R. Ambedkar Center for Biomedical Research
University of Delhi
University Road, Delhi-110007, India
Presents



National Symposium on Frontiers in Biomedical Research 2022 (FBR-2022)

Communicable and Non-communicable Diseases: Prevention, Cure, and Future Preparedness

Programme for Inaugural Function

Venue: Conference Centre, University of Delhi North Campus

Date: November 2nd 2022

Time: 11:00 AM – 12:15 PM

Welcoming of Chief Guest and Dignitaries to the Dias

Lighting of Lamp

Saraswati Vandana

Opening Remarks and Welcome

Prof. Daman Saluja,
Director, ACBR

Felicitation of Dignitaries

Release of Symposium Abstract Book

Inaugural Remarks

Prof. Yogesh Singh
Vice Chancellor, University of Delhi

Introduction to the Inaugural Address Orator

Prof. RNK Bamezai
Former VC,
Shri Mata Vaishno Devi University, Katra

Inaugural Address

Prof. Randeep Guleria
Former Director, AIIMS-New Delhi

Vote of Thanks

Dr. Sanjay Kumar Dey
Organising Secretary, FBR-2022

(The function will be followed by Lunch at the venue)

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SESSION II: INFECTION AND IMMUNITY

Session In-Charge: Prof. K. Natarajan, ACBR

TIME: 2:00 P.M. - 3:40 P.M.

Chair: Prof. Suman Dhar, <i>Special Centre for Molecular medicine, JNU</i>		
PL-2	Pawan Malhotra, <i>ICGEB, New Delhi</i> : Unravelling and targeting Plasmodium falciparum merozoite invasion of human RBCs	2:00 pm - 2:30 pm
IL-3	Udaykumar Ranga, <i>JNCASR, Bengaluru</i> : Sleep like HIV to win the world!	2:30 pm - 2:55 pm
IL-4	Amit Singh, <i>IISc, Bengaluru</i> : Macrophage heterogeneity promotes drug tolerance in <i>Mycobacterium tuberculosis</i>	2:55 pm - 3:20 pm
OP-2	Shakuntala S. Saraswati, <i>ACBR, DU</i> : Investigations on the Immunological Roles of Host Derived Heat Shock Proteins during Mycobacterial Infection	3:20 pm - 3:30 pm
OP-3	Dhaneshwar Prusty <i>Central University of Rajasthan</i> : Rational designing of Peptide-Ligand Conjugates for the treatment of complicated malaria	3:30 pm - 3:40 pm

EVENING TEA 3:40 P.M. – 4:00 P.M.

SESSION III: CANCER STEM CELLS & LEUKEMIA

Session In-Charge: Prof. Daman Saluja, ACBR

TIME: 4:00 P.M. - 5:15 P.M.

Chair: Prof. Ramesh K. Bamezai, Former VC, Shri Mata Vaishno Devi University, Katra		
PL-3	Jacqueline Cloos , <i>University of Amsterdam Cancer Center, Netherlands</i> : Relevance of leukemia stem cells for acute myeloid leukemia	4:00 pm - 4:30 pm
IL-5	Tulika Seth , <i>AIIMS, New Delhi</i> : Leukemias: unanswered questions Leukemia stem cells: holding the answers?	4:30 pm - 4:55 pm
OP-4	Ankit Mathur , <i>ACBR, DU</i> : Induction of terminal differentiation in leukemic blast cells with esculetin: Role of “axis shifts” of Wnt signaling	4:55 pm - 5:05 pm
OP-5	Sumeet , <i>ACBR, DU</i> : Ricolinostat suppresses proliferation and promotes apoptosis alone as well as in combination with topotecan/etoposide in cervical cancer cells	5:05 pm - 5:15 pm

Day 2: Thursday, 3rd November 2022

SESSION IV: SYSTEMIC INFLAMMATION VS NEUROINFLAMMATION: THE TWO DRIVERS OF NEURODEGENERATIVE DISORDERS

Session In-Charge: Prof. Anju Katyal, ACBR

TIME: 9:00 A.M. - 10:40 A.M.

Chair: Dr. Shashi Bala Singh, Director, NIPER, Hyderabad		
PL-4	Vaibhav Kumar , <i>University of Augusta Georgia</i> : Immune interaction in brain injury: what we know so far	9:00 am - 9:30 am
IL-6	Udayabanu Malairaman , <i>Jaypee University of Information Technology, Himachal Pradesh</i> : Quercetin Attenuates Neurological Complications Associated with Chronic Diabetes	9:30 am - 9:55 am
IL-7	Tauheed Ishrat , <i>University of Tennessee Health Science Center (UTHSC)</i> : Role of TXNIP in Brain Aging and Alzheimer's Disease	9:55 am 10:20 am
OP-6	Meetali , <i>ACBR, DU</i> : PPAR- β/δ agonist GW501516 attenuates neuroinflammation and blood-brain barrier breakdown in <i>Plasmodium berghei</i> ANKA-infected Balb/c mice	10:20 am - 10:30 am

TEA BREAK 10:30 A.M. - 11:00 A.M.

SESSION V: PROTEIN FOLDING DISEASES: MOLECULAR MECHANISMS AND THERAPEUTIC APPROACHES

Session In-Charge: Prof. L. R. Singh, ACBR

TIME: 11:00 A.M. - 12:40 P.M.

Chair: Prof. Rajiv Bhat, School of Biotechnology, JNU		
PL-5	Ipsita Roy, NIPER Mohali: Development of aptamers as therapeutic agents for C9 ALS-FTD	11:00 am - 11:30 am
IL-8	Krishnananda Chattopadhyay, CSIR-IICB, Kolkata: Metal cofactor Zn and interacting membranes modulate conformation-aggregation landscape in SOD1	11:30 am - 11:55 am
IL-9	Athi N. Naganathan, IIT Madras (Online): Dynamic Homo- versus Hetero-Oligomerization Drives the Thermo-Osmo Responsiveness of Enterobacterial Sensory Proteins	11:55 am - 12:20 pm
OP-7	Snigdha ACBR, DU: Taurine & derivates as enhancers of thyroxine-binding affinity transthyretin: an insight towards therapeutic intervention of pre-eclampsia	12:20 pm - 12:30 pm
OP-8	Reshmee Bhattacharya, ACBR: Organosulfurs, S-allyl cysteine and N-acetyl cysteine sequester dicarbonyls and reduces carbonyl stress	12:30 pm – 12:40 pm

LUNCH BREAK AND POSTER SESSIONS

12:40 P.M. – 2:20 P.M.

SESSION VI: APPLICATIONS OF STRUCTURAL BIOLOGY TO TREAT HUMAN DISEASES

Session In-Charge: Dr. Sanjay K. Dey, ACBR

TIME: 2:20 P.M. – 4:00 P.M.

Chair: Prof. T. P. Singh, AIIMS, New Delhi		
PL-6	Christian Betzel, Hamburg University, Germany: Past and Future in Structure-Based Drug Discovery to identify Lead Compounds	2:20 pm – 2:50 pm
IL-8	S. Gourinath, JNU: Structural based inhibitor development against cysteine biosynthetic pathway enzymes of <i>E. histolytica</i>	2:50 pm – 3:15 pm
IL-9	Manidipa Banerjee, IIT Delhi: Molecular pathways for non-enveloped capsid disassembly	3:15 pm – 3:40 pm
OP-9	Prakash Jha, ACBR, DU: Drug repurposing to treat Tuberculosis and SARS-CoV-2 infections: Insights from computational design into their mechanisms of action	3:40 pm - 3:50 pm

EVENING TEA 4:00 P.M. – 4:30 P.M.

SESSION VII: NEUROBIOLOGY AND EXPERIMENTAL NEUROLOGY

Session In-Charge: Dr. Aparna Dixit, ACBR

TIME: 4:30 P.M. - 6:10 P.M.

Chair: Prof. P. M. Luthra, ACBR, DU		
PL-7	Annamaria Vezzani , <i>Department of Neuroscience, Mario Negri Institute for Pharmacological Research in Milano, Italy:</i> Neuroinflammatory pathways in epilepsy as treatment targets and biomarker candidates in epilepsy	4:30 pm - 5:00 pm
IL-9	Surajit Sarkar , <i>DU:</i> A multi-target based novel combinatorial approach to dominantly restrict human Tau mediated neurotoxicity in <i>Drosophila</i> disease models	5:00 pm - 5:25 pm
IL-10	Baby Chakrapani , <i>Centre for Neuroscience, Department of Biotechnology, Cochin University of Science and Technology, Kerala:</i> Differentiation of peripheral blood mononuclear cell (PBMC) into tyrosine hydroxylase expressing Dopaminergic neurons for cell replacement therapy in Parkinson's disease	5:25 pm - 5:50 pm
OP-10	Nitin Yadav , <i>ACBR, DU:</i> Src Kinase mediates differential regulation of excitatory synaptic transmission in the hippocampus and ATL in temporal lobe epilepsy	5:50 pm - 6:00 pm
OP-11	Tuithung Sophronea , <i>ACBR, DU:</i> A _{2A} R antagonists mediate the restoration of mitochondrial calcium dysfunction using the 6-OHDA model of Parkinson's in primary neuronal cells of P ₀ /P ₁ rat pups	6:00 pm - 6:10 pm

*You are cordially invited to
join us for*

परवाज़

(Parvaaz)

A Cultural Program

On

Thursday, November 3, 2022 at 6:30 PM

at

National Symposium on Frontiers in Biomedical Research 2022 (FBR-2022)
**Communicable and Non-communicable Diseases: Prevention, Cure, and Future
Preparedness**

(Venue: Conference Centre, University of Delhi North Campus)

Featuring

Hindustani Vocal Music

By

Prof. Subhendu Ghosh (Rampur Sahaswan Gharana)

(Former Professor, Department of Biophysics, University of Delhi)

Bharatanatyam

By

Ms. Ishita Bhatia

Solo Performance

by

Ms. Srishti Srivastava and Ms. Sarika Bano

Classical and Semiclassical Group Dance

By

Ms. Surbhi Tripathi, Ms. Milky Mittal, Ms. Shreya Bhattacharjee, Ms. Shahjahan, Ms. Smaranjot Kaur, Ms. Neha Dixit, Ms. Diksha Saini, Ms. Bhawna Solanki, Ms. Riya Jain, Ms. Tejaswini, Ms. Shivam Yadav, Ms. Pratima, Mr. Dipesh Talukdar, Mr. Bhashkar Paul, Mr. Wilson Gbedema, Mr. Ashish Yadav, Mr. Altaf Asghar, and Mr. Jai Prakash

A Short Story with Guitar and Stand-up Poetry

By

Mr. Anish Vashisht

Song

By

Ms. Sumedha Sengupta, Mr. Dipesh Talukdar, and Ms. Vidhi

(The function will be followed by a Banquette Dinner at the venue)

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Day 3, Friday, 4th November 2022

SESSION VIII: NEW PARADIGM IN DRUG DISCOVERY RESEARCH

Session In-Charge: Prof. Madhu Chopra, ACBR

TIME: 9:00 AM - 10:40 A.M.

Chair: Prof. Diwan S. Rawat, Dept. of Chemistry, DU		
PL-8	Anil K. Mishra, DRDO, INMAS, New Delhi: Chemical Chaperones in Theragnostic using Nuclear Technology	9:00 am - 9:30 am
IL-11	Debashisa Mohanty, NII, New Delhi: Designing Allosteric inhibitors for PfCDPK1 by combining atomistic simulations with machine learning	9:30 am - 9:55 am
IL-12	Tavpritesh Sethi, IIIT-Delhi: Understanding DNA Sequences with Artificial Intelligence	9:55 am - 10:20 am
OP-12	Priya Poonia, ACBR, DU: Virtual screening combined with molecular modelling and designing approaches to identify HDAC6 selective inhibitors as anticancer agents	10:20 am - 10:30 am
OP-13	Ayush Thakur, Kirori Mal College, DU: Exploring the Therapeutic Potential of Nanotechnology based Phyto-pharmaceuticals	10:30 am - 10:40 am

TEA BREAK 10:40 A.M. - 11:00 A.M.

SESSION IX: THERAPEUTIC VENTURE TO TARGET CANCER CELL AND ITS REPROGRAMMED BIOLOGY

Session In-Charge: Prof. Ajay K. Yadav, ACBR

TIME: 11:00 A.M. - 12:15 P.M.

Chair: Prof. S. N. Das, Adjunct Faculty, Jamia Hamdard		
PL-9	Durga Prasad Mishra, CSIR-CDRI: Therapeutic Targeting of Metabolic Reprogramming in Glioma	11:00 am - 11:30 am
IL-13	Ritu Kulshreshtha, IIT-Delhi: miR-210: An attractive target for cancer therapy	11:30 am - 11:55 am
OP-14	Sachin Bhardwaj, ACBR, DU: SMAC mediating a switching point in TRAIL drive sensitization	11:55 am - 12:05 pm
OP-15	Akansha Chauhan, Amity Univ, Noida UP: Targeting NF- κ B50 DNA binding region through active phytochemicals from <i>Spaheeranthus indicus</i>	12:05 pm - 12:15 pm

**SESSION X: RECENT ADVANCES IN ALTERNATIVE MEDICINE: WITH
EMPHASIS ON AYURVEDA**

Session In-Charge: Prof. Pratibha M. Luthra and Prof. Manisha Tiwari, ACBR

TIME: 12:15 P.M. - 1:30 P.M.

Chair: Prof. Veena Aggarwal, Dept. of Botany, DU		
PL-10	VM Bhandari, CSIR-NCL: SWASTIIK Technology- Exploiting knowledge of Ayurveda for water disinfection and for possible health benefits.	12:15 pm - 12:45 pm
IL-14	Sunita Dhawan, CIMAP: <i>Exploration of biosynthetic potential for new therapeutic.. provide chemotypic in Ocimum basilicum: validations through genomics</i>	12:45 pm - 1:10 pm
OP-16	Shruti Shalini, ACBR, DU: Biological evaluation of hydro-alcoholic extract of Bacopa monnieri for the treatment of Alzheimer's disease	1:10 pm - 1:20 pm
OP-17	Rambir Singh, Mizoram University: Standardization and quality control in medicinal and aromatic plants for phtopharmaceutical drug discovery	1:20 pm - 1:30 pm

LUNCH BREAK AND POSTER SESSION III

1:30 P.M. – 3:00 P.M.

**SESSION XI: ART OF WAR AGAINST CARDIOVASCULAR DISEASE
PROGRESSION AND OUTCOMES**

Session In-Charge: Dr. Kamna Srivastava, ACBR

TIME: 3:00 P.M. - 4:30 P.M.

Chair: Prof. Jagriti Bhatia, AIIMS New Delhi		
PL-11	Dhavendra Kumar, Spire Cardiff Hospital, UK: Cardiovascular disease in the Genome era	3:00 pm - 3:30 pm
IL-15	R. Lakshmy, AIIMS, New Delhi: Endothelial progenitor cells in cardiovascular disease	3:30 pm - 3:55 pm
IL-16	Vivek Chaturvedi, Amrita Institute of Medical Sciences, Faridabad: Art of war against cardiovascular disease	3:55 pm – 4:20 pm
OP-18	Shelly Aggarwal, ACBR, DU: Elevated expression of SORT1 gene in patients with Coronary Artery Disease	4:20 pm - 4:30 pm

EVENING TEA 4:30 P.M. – 5:00 P.M.



You are cordially invited to

join us for

Valedictory Lecture

By

Prof. Sudhanshu Vrati

(Director, Regional Centre for Biotechnology, Faridabad)

On

“Rotavirus vaccine development: The India story”

On Friday, November 4, 2022 at 5:00 PM

at

National Symposium on Frontiers in Biomedical Research 2022 (FBR-2022)

Communicable and Non-communicable Diseases: Prevention, Cure, and Future Preparedness

(Venue: Conference Centre, University of Delhi North Campus)

Chaired by

Prof. Yogendra Singh

(Former Dean, Life Sciences & Director, DSPH, IoE, University of Delhi)

Poster Awards by Dignitaries

Vote of Thanks

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