Scientific Programme

95th Annual Meeting of the SBC(I)

Conference on

Advancing Biochemistry and Translational Research to Address Evolving Challenges in Healthcare

October 28-30, 2026

DAY 1, Oct 28

Session 1 **Venue: Main auditorium**	
8.30 am – 9.30 am	Registration
9.30 am-9.35 am	Welcome by Director, CSIR-CDRI
9.35 am – 9.55 am	Presidential Address
9.55 am- 10.40 am	Plenary Lecture: Raghavan Varadarajan Design of efficacious vaccines against respiratory viruses
10.40 am-11.00 am	*Tea*
11.00 am – 11.30 am	Dr. Kamala Sohonie Memorial Lecture Award: Sandhya S. Visweswariah Fundamental 3Gs: Gut reactions, gut instincts and cGMP
11.30 am – 12.00 pm	Prof. I. S. Bhatia Award Lecture: Kaustuv Sanyal Emergence of anti-fungal drug resistance: Novel strategies adopted by *Candida auris*
12.00 pm – 12.30 pm	Sanjay Singh (ImmunoScript Life Science)** The mRNA vaccine revolution: Core principles, safety, and regulatory pathways of platform technologies
12.30-1.30 pm	*Lunch*

Session 2A **Cancer Biology** **Venue: Main auditorium** **Chairpersons: Dipankar Nandi & Saman Habib**		
1.30- 1.55 pm	Shilpak Chatterjee, CSIR-IICB	S1P-S1PR1 axis drives $CD8^+$ T Cell dysfunction in the tumor microenvironment

1.55-2.20 pm	Sorab Dalal, ACTREC	Iron homeostasis, tumour progression, and therapy resistance
2.20-2.45 pm	Shaida Andrabi, Kashmir Univ	FAK and PCTAIRE promote resistance against anti-cancer agents in ovarian cancer
2.45-3.10 pm	Dipak Datta, CSIR-CDRI	CXCR4 in cancer metastasis: Beyond GCPR signaling

Session 2B **Applied Structural Biology & Drug Discovery** **Venue: Hall 3** **Chairpersons: Vivek Natarajan & R. Ravishankar**		
1.30- 1.55 pm	Manidipa Banerjee, IIT-Delhi	Therapeutic and preventive strategies against arboviruses
1.55-2.20 pm	Deepti Jain, RCB	From inhibition to initiation: Regulation of late flagellar gene expression in *Pseudomonas aeruginosa*
2.20-2.45 pm	Saikrishnan Kayarat, IISER-Pune	Mode of substrate binding by the SARS-COV-2 NIRAN domain and the mechanism of modulation of its activities during RNA capping
2.45-3.10 pm	Mahavir Singh, IISc	Mechanisms of RNP assembly and toxin control in Type III toxin–antitoxin systems

Session 2C **Metabolism and Lifestyle Diseases** **Venue: Hall 2** **Chairpersons: Sandeep Eswarappa & Ravi Manjithaya**		
1.30- 1.55 pm	Nikhil Gandasi, IISc	Understanding targets at single-islet-cells for anti-diabetic treatment
1.55-2.20 pm	Naresh C Bal, KIIT	Targeting skeletal muscle to treat metabolic diseases: An exercise-mimetics approach
2.20-2.45 pm	Partha Chakrabarti, JCMLRI-Kolkata	Complement Factor D/Adipsin is a Novel Hepatic Glucose Effector
2.45-3.10 pm	Rohit Anthony Sinha, SGPGI	Hormonal therapy of MASH: An emerging hepato-endocrine disorder

3:10 pm – 3:30 pm: ***Tea Break***

Session 3A Immunobiology Venue: Main auditorium Chairpersons: Manidipa Banerjee & Monika Sachdev		
3.30-3.55 pm	Nimesh Gupta, BRIC-NII	The T cell blueprint of protective immunity : Lessons from human immunology
3.55-4.20 pm	Imroze Khan- Ashoka Univ.	Mutation load, pathogen growth and virulence dynamics drive immune adaptations against coinfections
4.20-4.45 pm	Karthika Rajeeve, BRIC-RGCB	Pathogen associated neutrophils shapes an immune-silent milieu
4.45-5.10 pm	Tripti Shrivastava, BRIC-THSTI	Translating virus biology from structural transition to transient conformational changes: key to vaccine design

Session 3B Bone and Reproductive Biology Venue: Hall 2 Chairpersons: Sorab Dalal & Atul Goel		
3.30-3.55 pm	Rupesh Srivastava, AIIMS-New Delhi	Delineating the autoimmune nature of inflammatory bone loss in post-menopausal osteoporosis
3.55-4.20 pm	Aritra Chatterjee, IIT-Guwahati	Multiscale structure–property relationships between knee joint function and tissue mechanics
4.20-4.45 pm	Geetanjali Sachdeva, ICMR-NIRRCH, Mumbai	Novel insights into the pathophysiology of endometriosis
4.45-5.10 pm	Ashish K. Tripathi, IIT-Bhilai	Beyond hematological benefits: Impact of hydroxyurea on bone health in Sickle Cell Disease

Session 3C Biochemistry of Rare Diseases Venue: Hall 3 Chairpersons: Deepti Jain & Akhilesh Tamrakar		
3.30-3.55 pm	Vivek Natarajan, CSIR-IGIB	Epigenetics of cellular identity: How melanocyte cell fates are specified, maintained, and lost
3.55-4.20 pm	Ravi Manjithaya, JNCASR	How to build and move autophagosomes

4.20-4.45 pm	Sandeep Eswarappa, IISc	Forbidden translation: Protein synthesis from the 'untranslated' regions of mammalian mRNAs
4.45-5.10 pm	Anshika Srivastava, SGPGI	PRUNE1 splice variant mediated AURKA upregulation dysregulates RNA metabolism as a novel pathogenic mechanism in NMIHBA

5:10 pm – 7:15 pm	**Poster Session**
5:15 pm – 6:15 pm	**EC Meeting**
7:15 pm – 8:15 pm	**Cultural Program**
8:15 pm Onwards	***Dinner***

DAY 2, Oct 29

Session 4 **Venue: Main auditorium**	
9:30 am– 10:00 am	Sreenivasaya Memorial Award: Sunil Laxman The cellular metabolic economy
10:00 am– 10:30 am	Prof. A. N. Bhaduri Memorial Lecture Award: Satish Mishra Molecular determinants of *Plasmodium* development and transmission
10.30 am -10.45 am	*Tech Talk:* Subir Biswas, Cytiva Deciphering Host-Parasite Molecular Interactions Using Label-Free SPR and Advanced Protein Analytics
10.45 am – 11.00 am	*Tea Break*

Session 5A **The Microbiome and its Interactions** **Venue: Hall 2** **Chairpersons: Radha Rangarajan & Imroze Khan**		
11.00-11.25 am	Souvik Mukherjee, NIBMG Kalyani	Metagenome Wide Association Studies (MWAS) on vaginal and oral microbiome in preterm birth and infant gut microbiome in growth failure: Precision microbiomics in developing the BHARAT webtool for rapid analysis of microbial WGS data

11.25-11.50 am	Amit Lahiri, CSIR-CDRI	Mitochondrial citrate exporter regulates dysbiosis and stress response outcome in Ulcerative colitis
11.50-12.15 pm	Vivek Rao, CSIR-IGIB	Metabolism as an immune strategy in fighting TB
12.15-12.40 pm	Prasenjit Bhaumik, IIT-B	Molecular insights of plasmepsins for understanding their inactivation mechanism and developing antimalarial inhibitors
12.40-1.05 pm	Prabhakar Tiwari, AIIMS-New Delhi	**Gut microbiome and host metabolism: Metagenomic and metabolomic findings in Alzheimer's disease**

Session 5B **Fungal and Parasite Biochemistry** **Venue: Hall 3** **Chairpersons: Krishnapal Karmodiya & Niti Kumar**		
11.00-11.25 am	Anindita Ukil, Univ of Calcutta	Silent sabotage: How *Leishmania* reprograms host immune metabolism for its sustained survival
11.25-11.50 am	Nishith Gupta, BITS-Hyd	Optogenetic illumination of cyclic nucleotides signaling in the intracellular pathogen *Toxoplasma gondii*
11.50-12.15 pm	Sneha Sudha Komath, JNU	The catalytic subunit of GPI-N-acetylglucosaminyltransferase which initiates GPI biosynthesis in Candida albicans also transcriptionally regulates the enzyme
12.15-12.40 pm	Srimonti Sarkar, Bose Instt	Trafficking Without a Golgi: Presence of a Divergent TRAPP Complex in *Giardia lamblia*

Session 5C **Cell and Developmental Biology** **Venue: Main auditorium** **Chairpersons: Nikhil Gandasi & JV Pratap**		
11.00-11.25 am	Saravanan Matheswaran, IIT-K	SWR1 chromatin remodeling regulates development, effector expression, and virulence in *Ustilago maydis*
11.25-11.50 am	Devanjan Sinha, BHU	Beyond Complex I: Mitochondrial electron flux plasticity in tumour cells
11.50-12.15 pm	Parul Mishra, UoHyd	Rewriting protein fate: The hidden regulatory language of Ubiquitin
12.15-12.40 pm	Sujit Kumar Bhutia, NIT Rourkela	Distinct molecular signaling pathways governing mitochondrial fission and their roles in mitochondrial biogenesis and mitophagy

12.40-1.05 pm	Abdur Rahaman, NISER-Bhubaneswar	A novel endocytic route delivers cardiolipin from plasma membrane to nuclear envelope: A role in nuclear expansion

1.05 pm – 2:00 pm: *Lunch*

Session 6A **Plant Biology and Defences 1** **Venue: Hall 2** **Chairpersons: Satish Mishra & Vidhu Sane**		
2.00- 2.25 pm	Gopalji Jha, BRIC-NIPGR	Molecular insights into fungal-eating properties of *Burkholderia* bacteria and utilizing them for the mitigation of fungal infections
2.25-2.50 pm	Jitendra Thakur, ICGEB	A molecular switch for survival: How mediator subunit MED14 couples cell-cycle control to DNA damage response
2.50-3.15 pm	Samir Sawant, CSIR-NBRI	Epigenetic landscape regulating fibre development in cotton
3.15-3.40 pm	Madhumita Barooah, Assam Agricultural Univ., Jorhat	Retention versus exclusion: Convergent and divergent mechanisms of Fe and Al toxicity tolerance in Assam's rice landraces

Session 6B **Neurobiology and Aging** **Venue: Main auditorium** **Chairpersons: Naresh Bal & PN Yadav**		
2.00- 2.25 pm	Anirban Basu, BRIC-NBRC	Neuroimmune circuits in brain health and disease:From neurotropic viral Infections to gut brain crosstalk
2.25-2.50 pm	Geetanjali Chawla, Shiv Nadar Univ (IoE)	MicroRNA pathways in aging and dietary restriction
2.50-3.15 pm	Sumantra Chattarji, CHINTA, TCG CREST	Tiptoeing into translational neuroscience in India: a small example
3.15-3.40 pm	Nihar Ranjan Jana, IIT-Khrg	Repurposing Ube3a imprinting biology for a neurodegenerative target

Session 6C **Clinical Biochemistry, Biomaterials and Tissue Engineering** **Venue: Hall 3** **Chairpersons: Siddharth Jhunjhunwala & Manish Chaurasia**		
2.00- 2.25 pm	Biman B. Mandal IIT-Guwahati	Bioengineered in vitro liver models for high throughput drug screening applications
2.25-2.50 pm	Indranil Bannerji, IIT-Jodhpur	NIR-responsive multifunctional phototherapeutics
2.50-3.15 pm	V Padmanaban, CMC Vellore **	Proteogenomic analysis identifies type 2 diabetes-influenced plasma proteins causally associated with microvascular and macrovascular complications of diabetes mellitus
3.15-3.40 pm	Satyaprakash Pandey, TIGS, Bangalore	Cervical cancer screening using HPV genotyping panel

3:40 pm – 3.55 pm: *Tea Break*

Session 7A **Flash Talks** **(Infectious diseases)** **Venue: Hall 2** ***Coordinator: Niti Kumar***	**Session 7B** **Flash Talks** **(Non-communicable diseases)** **Venue: Main auditorium** ***Coordinator: Dipak Datta***	**Session 7C** **Flash Talks** **(Structural, computational and molecular biology)** **Venue: Hall 3** ***Coordinator: Tejender Thakur***
3.55-5.20 pm	3.55-5.20 pm	3.55-5.20 pm
Time: 7 (5+2) min each	Time: 7 (5+2) min each	Time: 7 (5+2) min each
Presenters: Arunima Biswas Priyanka C. Yadav Amanullah Sayeed Krishan Kumar Sainath Polepalli, Gurvinder Kaur Kanchan Bhardwaj Simmi Pradhan Deneshraj Srinivasan Tashi Palmo Manisha Ghosh	Presenters: Arya Devi K P Shashi K. Gupta Bibhukalyan Mohapatra Udita Jindal Nitish Kumar Bhol Priya Saha Dipanjana Ghosh Debasree Dutta Syed Musthapa Meeran Shagun Bhupesh Mehta	Presenters: Imran Ansari Yogananda S M Alok Kumar Mishra Sandipan Mukherjee Samriddhi Thakur Shubham Krushna Talware Shalini Singh Sudarshan Gadadhar Abhijeet Mishra Abdul Basit Khan Atul Kumar

5.25 pm – 7:15 pm	**Poster Session**

7.15 pm-8.00 pm	**SBC General Body Meeting**
8.00 pm Onwards	Dinner

DAY 3, Oct 30

Session 8 **Venue : Main auditorium**	
9:30 am – 10:10 am	Plenary Lecture: Soniya Nityanand Beyond regeneration/repair: Emerging role of stem cells in disease pathogenesis
10.10 am – 10.20 am	Tech Talk: HiMedia
10.20 am – 10.30 am	Tech talk: Leica
10.30 am-10.40 am	Tech talk: Nucleome Informatics
10.40 am-11.00 am	*Tea Break*

Session 9A **Biotherapeutics** **Venue: Hall 2** **Chairpersons: Dipak Datta & PK Singh**		
11.00-11.25 am	Siddharth Jhunjhunwala, IISc	Neutrophils drive immunopathology in chronic inflammatory states
11.25-11.50	Ashis Kumar Mukherjee, IASST-Guwahati	Snake venom Nerve Growth Factor-derived peptides impede the progression of oxidative stress-induced neurodegenerative diseases
11.50-12.15 pm	Bhavana Muralidharan, inStem, Bangalore	Chromatinopathies, ciliopathies, and brain malformations: From genetic mechanisms to disease models
12.15-12.40 pm	Suktilang Majaw, NEHU	From natural products to molecular targets: Linking Metabolic regulation to cancer cell survival
12.40-12.55	Durgesh Kumar, Immunoscript Life Sciences	Self-Amplifying RNA Vaccines: Harnessing Durable and Multifunctional T-Cell Immunity for Next-Generation Therapeutics

Session 9B Structural Biochemistry Venue: Main auditorium Chairpersons: Aravind Penmatsa & Sohail Akhtar		
11.00-11.25 am	Tanweer Hussain, IISc	Unique strategy and structural mimicry by viral mRNA help hijack host ribosomes
11.25-11.50	Prem Kaushal, BRIC-RCB	Cryo-EM studies of ribosome assembly in mycobacteria
11.50-12.15 pm	Mahipal Ganji, IISc	Biochemistry in singulo: A single-molecule view of bacterial genome organization
12.15-12.40 pm	Sujata Sharma, AIIMS-New Delhi	From mother's milk to molecular medicine: Lactoferrin from structure to patient care

Session 9C Viruses and Phage Therapy Venue: Hall 3 Chairpersons: Jayanta Sarkar & Meetali Singh		
11.00-11.25 am	Vikas Jain, Krea Univ.	Antiphage defense in mycobacteria through a phage-derived protein domain
11.25-11.50 am	Rajesh Ringe, NIPER-Mohali	Escape from neutralization: The role of differential sugarcoating of SARS-CoV-2 Spike protein
11.50-12.15 pm	Syamala Maitreyi Rajala, JNU	Recombinant measles virus with a pro-apoptotic gene: a potential therapeutic approach to target breast cancer
12.15-12.40 pm	Sutharsan Govindarajan, SRM Univ., Guntur	From mechanism to medicine: Translating Jumbo Phage biology into clinical potential against drug resistant pathogens

12:45 pm – 2:15 pm: ***Poster Session and Lunch***

Session 10A Parasite Biology Venue: Hall 2 Chairpersons: Tripti Shrivastava & Arun K. Haldar

2:15-2:40 pm	Meetali Singh, IISc	Small RNA-mediated epigenetic regulation of pathogenesis and host-parasite interaction
2:40-3:05 pm	Budhaditya Mukherjee, IIT-Khrgpr	From dermal to visceral adaptation: genome plasticity drives GP63 paralogue specialization in *Leishmania*
3:05-3:30 pm	Krishnapal Karmodiya, IISER-Pune	Non-coding RNAs in regulating gene expression and chromatin dynamics in *P. falciparum*
3:30-3.55 pm	Amit Prasad, IIT-Mandi	A fight for eradication of neurocysticercosis against all the odds: Immunology, inflammation, and epileptogenesis of *Taenia solium*

Session 10B **RNA Biology in the Origin and Evolution of Life** **Venue: Hall 3** **Chairpersons: Hamim Zafar & Arunava Dasgupta**		
2:15-2:40 pm	Shovamayee Maharana, IISc	Role of RNA metabolism in controlling RNA-RBP condensate dynamics in ageing and inflammation
2:40-3:05 pm	Sudha Rajamani, IISER-Pune	The emergence and evolution of biomolecules on the early Earth: Implication for life's origin
3:05-3:30 pm	Soma Banerjee, IPGMER-Kolkata	The circular RNA–Stemness circuit: A hidden driver of Sorafenib resistance in hepatocellular carcinoma
3:30-3.55 pm	Amanjot Singh, MAHE	RNA-dependent regulation of ribonucleoprotein complex dynamics by an E3 Ligase

Session 10C **Bacterial Infections and AMR** **Venue: Main auditorium** **Chairpersons: Suman K. Dhar & YK Manju**		
2:15-2:40 pm	Vinay Nandicoori, CSIR-CCMB	Tuberculosis: From molecular mechanisms to genomic surveillance
2:40-3:05 pm	Raju Mukherjee, IISER-Tirupati	Induced innate immunity in *Mycobacterium* against mycophages
3:05-3:30 pm	Ashwani Kumar, CSIR-IMTech	Mycobacterial Biofilms; Another armor is rise of a superbug
3:30-3.55 pm	Tushar Kanti Beuria, ILS-Bhubaneshwar	Inhibition of efflux pumps: Making resistant bacteria susceptible to existing antibiotics

3.55 pm – 4:10 pm: *Tea Break*

Session 11A **Towards Precision Medicine/Genomics and Metagenomics** **Venue: Hall 3** **Chairpersons: Sudha Rajamani & Shakil Ahmad**		
4:10-4.35 pm	Sauvik Maiti, CSIR-IGIB	Indigenous CRISPR-Cas9 Tools: Advancing Gene Therapy Through Precision
4:35-5:00 pm	Vinod Scaria, Karkinos Healthcare	Personal genomes for precision medicine
5:00-5:25 pm	Shankar Manoharan, IIT-Jodhpur	Genetic and physiological adaptations in *Klebsiella pneumoniae* customized for the bloodstream
5:25-5:50 pm	Ranjana Arya, JNU	Exploring pathomechanisms and potential therapeutic leads for rare diseases

Session 11B **AI-ML in Biochemistry and Drug Discovery** **Venue: Hall 2** **Chairpersons: Tanweer Hussain & MI Siddiqi**		
4:10-4.35 pm	Biplab Bose, IIT-Guwahati	Beyond adhesion: Active cell sorting
4:35-5:00 pm	Hamim Zafar, IIT-K	Computational analysis of single-cell and spatial omics datasets for elucidating cancer heterogeneity
5:00-5:25 pm	MS Madhusudhan, IISER-Pune	Reading Genomes with DNA motifs
5:25-5:50 pm	Kasturi Mitra, Ashoka Univ	Quantitative elucidation of mitochondrial structure-function heterogeneity to decipher specification of the potent mitochondria primed neoplastic stem cells and their therapeutic vulnerabilities

Session 11C **Plant Biology and Defences 2** **Venue: Main auditorium** **Chairpersons: Gopalji Jha & Samir Sawant**

4:10-4.35 pm	PK Singh, CSIR-NBRI	Engineering of a Bt protein for the development of pink bollworm-resistant transgenic cotton
4:35-5:00 pm	Hitendra Kumar Patel, CSIR-CCMB	Durable resistance to bacterial blight disease and development of super rice varieties
5:00-5:25 pm	Sridev Mohapatra., BITS-Hyd	Molecular mechanisms in plant-rhizobacterial interaction for abiotic stress tolerance
5:25-5:50 pm	T. Narender, CSIR-CDRI	Challenges in development of plant secondary metabolites as phytopharmaceuticals

5.50-6.20 pm	**Student Awards and Concluding Session**
6.20 pm	*Tea*