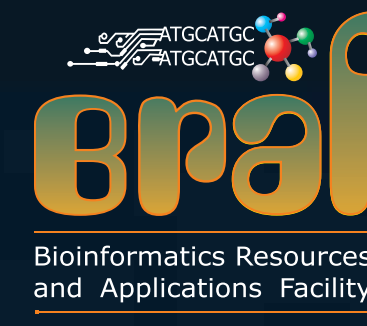




Symposium on

“Accelerating Biology 2026: Reimagining Biology in AI Era”

Sept 7-9, 2026

Technical Programme

Day 1

Monday, Sept 7, 2026

Time	Title	Speaker
08:30-09:00	Registration	
09:00-10:30	Session I: Inaugural Programme	
10:30-11:00	High Tea	
	Session II: Breakthroughs in Computational Structural Biology	
	Session Chair	
11:00-11:30	TBD	Prof. Shekhar Mande, INSA & SPPU
11:30-12:00	TBD	Talk
	Session III: Futuristic Computing: Challenges and Opportunities	
	Session Chair: Shri. Sanjay Wandhekar, Pune	
12:00-12:30	Federated fine-mapping across multi-ancestry biobanks using privacy-preserving federated learning	Dr. Ravi Madduri, ANL, USA
12:30-13:00	Programming Models in the Exascale Era	Dr. Sarat Sreepathi, C-DAC
13:00-14:00	Poster Inauguration followed by Lunch	
	Session IV: Predictive Biology at Scale	
	Session Chair: Dr. Chetan Gadgil, CSIR-NCL, Pune	
14:00-14:30	Characterizing Biomolecular Recognition Mechanisms through Massively Parallelized Multi-Dimensional Replica-Exchange Molecular Dynamics	Prof. Shinobu Ai, University of Osaka, Japan
14:30-15:00	Mechanistic Modeling in the AI Era: Integrating Life from Molecules to Environment	Prof. Yukiko Himeno, Ritsumeikan University, Japan
15:00-15:30	Computational approaches for understanding and predicting binding affinities of protein complexes and their mutants	Prof. Michael Gromiha, IIT-Chennai
15:30-16:00	TBD	Prof. Shandar Ahmad, JNU, New Delhi
16:00-16:15	Tea Break	
16:15-18:00	Poster Session I	
	Session V: Algorithm Design for Scientific Workflows	
	Session Chair: Prof. M. S. Madhusudan, IISER, Pune	
18:00-18:30	Solving 3D puzzles of biomolecular interactions by physics- and AI-based integrative modelling	Prof. A.M.J.J Bonvin, Utrecht University, The Netherlands (online)
18:30-19:00	Dynamic Workflows in HPC: Steering, Learning, and UQ	Dr. Antigoni Georgiadou,ORNL, USA (online)
19:00-20:00	Session VI: Panel discussion on “Reimagining Scientific Application Development in HPC-AI Era”	
20:00	Dinner at PIC	

Day 2

Tuesday, Sept 8, 2026

	Session VII: AI-based Drug Discovery	
	Session Chair: Prof. Arnab Mukherjee, IISER, Pune	
09:00-09:30	Protein language models for advancing therapeutic protein design	Dr. Shruthi Viswanath, NCBS, Bengaluru
09:30-10:00	AI-Guided Prediction and Design of IDR–Protein Interactions	Dr. Jagannath Mondal, TIFR, Hyderabad
10:00-10:30	Lipid transfer mechanism of cholesteryl ester transfer protein between HDL and LDL	Prof. Sanjib Senapati, IIT-Chennai
10:30-11:00	Rational Drug design strategies for Intrinsically Disordered Proteins (IDPs) using biomolecular simulations and machine learning approaches	Dr. Anand Srivastava, IISc, Bengaluru
11:00-11:15	Tea Break	
	Session VIII: Genomics and Metagenomics Insights	
	Session Chair:	
11:15-11:45	TBD	Dr. Mahesh Dharne, CSIR-NCL, Pune
11:45-12:15	Beyond Immune Recovery: A Gut Microbiome Perspective on Recovery in People Living with HIV and Latent Tuberculosis	
12:15-12:45	TBD	Dr. Vikrant Bhor, ICMR-NIRRH, Mumbai
12:45-13:15	The Genome India Project: population-scale insights into genetic diversity and medical genetics	Dr. Dhiraj Dhotre, BRIC-NCCS, Pune
13:15-14:15		Dr. Chandrika Bhattacharyya, Sydney Brenner Institute for Molecular Bioscience
13:15-14:15	Lunch Break	
	Session IX: Multiomics Frontiers	
	Session Chair: Dr. Abhijeet Kulkarni, SPPU, Pune	
14:15-14:45	TBD	Dr. Nidhan Biswas, BRIC-NIBMG, Kalyani
14:45-15:15	TBD	Dr. Ishaan Gupta, IITD
15:15-15:45	Milestones and Momentum: Tracking ICGA's Growth and Objectives	Dr. Ankita Singh, ICGA
15:45-16:15	HPC/Cloud - AI Workloads for Bioinformatics Applications at C-DAC	TBD
16:15-16:30	Tea Break	
16:30-17:30	Poster Session-II	
	Session X: Ideas to Impact	
	Session Chair: Dr. Durba Sengupta, CSIR-NCL, Pune	
17:30-18:00	TBD	Dr. Taslimarif Saiyed, C-CAMP, Bengaluru
18:00-18:30	TBD	Dr. Sudip Roy, Prescience Insilico, Bengaluru
18:30-19:00	TBD	Dr. Parveen Goyal, CSIR-NCL, Pune
19:00-20:00	Poster Session-III	
20:00	Dinner at PIC	

Day 3

Wednesday, Sept 9, 2026

	Session XI: Partners & Collaborators	
	Session Chair: Dr. Sanjay Gupta, ACTREC, Kharghar	
09:00-09:30	Extending Molecular Simulations to Medicinal Phytochemicals: Development of CHARMM Force Fields for Natural Products	Prof. Sairam Swaroop Mallajosyula, IIT Gandhinagar
09:30-10:00	Embedded Genomics: Taming the Petabyte-Scale Data Tsunami with Energy-Efficient Custom Computing	
10:00-10:30	Integrating Digital Pathology in Cancer Research and Patient Prognostication	Dr. Siddharth Maheshwari, IIT-Jammu
10:30-11:00	Stimuli-responsive modulation of nucleic acid structures for nanobiotechnology applications	Dr. Madhura Kulkarni, PCCM, Pune
11:00-11:15	Tea Break	
11:15-11:45	Understanding ribosome structures function using cryo- EM	Dr. Ashwani Sharma, IISER, Tirupati
11:45-12:15	A top-down–bottom-up pipeline for the automatic construction of a mechanistic mathematical model of breast cancer resistance	
12:15-12:45	TBD	Dr. Prem Kaushal, RCB, Faridabad
12:45-13:15	Decoding the role of Receptor-Specific Residues in β 1-Adrenergic Receptor Activation: Insights from Computational Simulation	Prof. Vikas Pandey, Osaka University, Japan
13:15-14:00		Dr. Durba Sengupta, CSIR-NCL, Pune
13:15-14:00	Lunch Break	
14:00-14:20	TBD	Dr. Manali Joshi, SPPU, Pune
14:20-14:40	From Clinical Care to Discovery: An Integrated Approach to Congenital Heart Defects Research	
14:40-15:00	TBD	Mr. Vijaya Raghavan R, NIOT, Chennai
15:00-15:20	Genomics of Schizophrenia: From Diagnosis to Therapeutic Strategies	Dr. Radha Joshi, Sri Sathya Sai Sanjeevani Research Foundation, Kharghar
15:20-16:20		Dr. Bajarang Kumbhar, NMIMS Deemed to be University, Mumbai
15:20-16:20	Poster Oral Presentations	Dr. Satyajeeet Khare, Symbiosis International University, Pune
16:20-16:30	Session XII: Valedictory Session	
	Session Chair: Dr. Uddhavesh Sonavane, C-DAC	
	Poster awards and feedback	
16:30	Tea and Goodbye	

Symposium Venue: Pune International Center, Panchawati, Pune, Maharashtra 411008