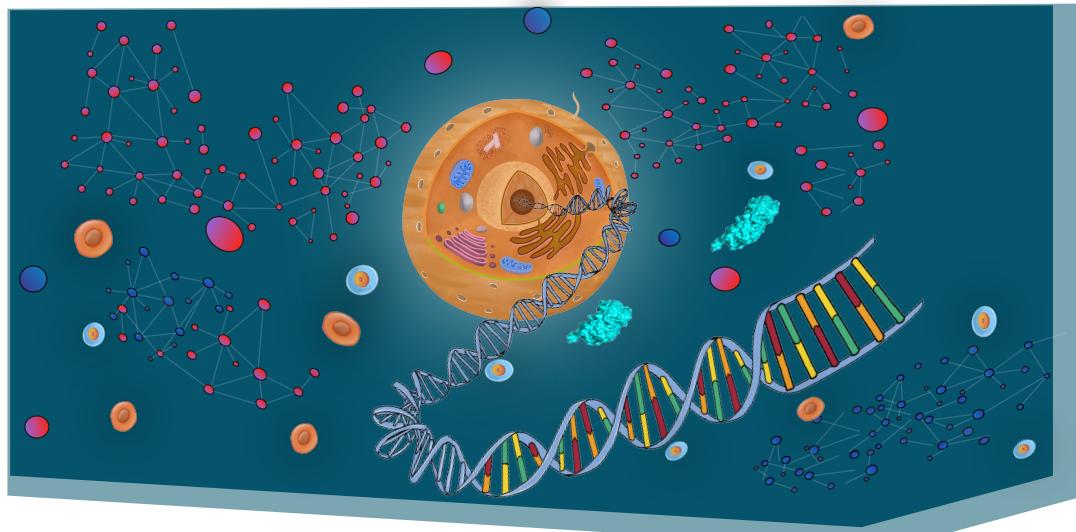


0930 – 1005	Manikandan Narayanan (IIT Madras) GWAS across borders: Simple models for cross-ethnic disease risk prediction
1005 – 1040	Satyavani Vemparala (IMSc Chennai) Functional group mediated mechanisms of membrane recognition in antimicrobial peptides and polymers
1040 – 1130	<i>Tea Break & Poster Session</i>
1130 – 1205	Pranay Goel (IISER Pune) The oral glucose tolerance test (OGTT), a 100 years later can we build an alternative?
1205 – 1240	Sandeep Choube (IMSc Chennai) Pearls on a string: Phase-separating proteins on biopolymers as functional assemblies
1240 – 1400	<i>Lunch</i>
1400 – 1435	Debayan Chakraborty (IMSc Chennai) Exploring energy landscapes of model polyampholytes and intrinsically disordered proteins using minimalist models
1435 – 1510	Nivedita Deo (University Delhi) Viewing protein structure through the random matrix and network lens
1510 – 1545	Parul Verma (IIT Madras) A neural mass modeling approach to understand biophysics of brain regional activity
1545 – 1600	<i>Concluding Remarks</i>



MODELLING AND TACKLING COMPLEX BIOLOGICAL SYSTEMS 2.0

16 - 18 February 2026

Invited Speakers



Aswin SN Seshasayee (NCBS Bengaluru)	Debnath Pal (IISc Bengaluru)	Parul Verma (IIT Madras)	Sanjay Jain (Univ Delhi)
Athi Naganathan (IIT Madras)	Deepak Agrawal (IIT Bombay)	Pranay Goel (IISER Pune)	Satyanaarayan Rao (IIT Roorkee)
Brato Chakrabarti (ICTS Bengaluru)	M. Michael Gromiha (IIT Madras)	Rahul Siddharthan (IMSc Chennai)	Satyavani Vemparala (IMSc Chennai)
Chetan Gadgil (NCL Pune)	Manikandan Narayanan (IIT Madras)	Ram Rup Sarkar (NCL, Pune)	Sitabhra Sinha (IMSc Chennai)
Chirag Jain (IISc Bengaluru)	Nagasuma Chandra (IISc Bengaluru)	Samrat Chatterjee (THSTI Faridabad)	Susan Idicula-Thomas (ICMR-NIRRH Mumbai)
Debarka Sengupta (IIIT Delhi)	Nivedita Deo (Univ Delhi)	Sandeep Choube (IMSc Chennai)	
Debayan Chakraborty (IMSc Chennai)	Olivier Martin (INRAE France)	Sangram Bagh (SINP Kolkata)	

Venue

Ramanujan Auditorium, The Institute of Mathematical Sciences (IMSc), Chennai



The Institute of Mathematical Sciences (IMSc), Chennai

Designed by Kishan Kumar & Camelia Guha

Meeting Schedule

16 February 2026

0845 – 0930	<i>Registration with Tea/Coffee</i>
0930 – 0940	<i>Opening Remarks</i>
0940 – 1015	Sitabhra Sinha (IMSc Chennai) Devo-Eco: Environment, interactions and the embryo
1015 – 1050	Deepak Agrawal (IIT Bombay) Optimizing chemotherapy balance with reinforcement learning
1050 – 1130	<i>Tea Break and Poster Session</i>
1130 – 1205	Chetan Gadgil (NCL Pune) A systems pharmacology model for extrapulmonary tuberculosis
1205 – 1240	Samrat Chatterjee (THSTI Faridabad) Targeting calcium-dependent perturbations in the functioning of pancreatic beta cells using mathematical modelling
1240 – 1400	<i>Lunch</i>
1400 – 1435	M. Michael Gromiha (IIT Madras) Development of computational models for predicting the binding affinities of protein complexes and their mutants
1435 – 1510	Nagasuma Chandra (IISc Bengaluru) Exploiting immune selfness, A tumour immunosculpting strategy
1510 – 1535	<i>Tea Break and Poster Session</i>
1535 – 1610	Athi Naganathan (IIT Madras) Proteins, strings, ensembles and mechanisms
1610 – 1645	Debnath Pal (IISc Bengaluru) From static structure to dynamic landscapes: Understanding macromolecular function
1645 – 1740	<i>Poster Session and High Tea</i>
1740 – 1815	Debarka Sengupta (IIIT Delhi) AI approaches in detecting and treating cancers.
1815 – 1850	Aswin SN Seshasayee (NCBS Bengaluru) The beginnings of transcription regulation
1900 – 2100	<i>Conference Dinner</i>

17 February 2026

0900 – 0930	<i>Registration with Tea/Coffee</i>
0930 – 1005	Rahul Siddharthan (IMSc Chennai) Gene regulatory sequence : Beyond motifs
1005 – 1040	Satyanarayan Rao (IIT Roorkee) Understanding gene regulation: from sub-angstrom sensitivity of transcription factors to language models
1040 – 1130	<i>Tea Break & Poster Session</i>
1130 – 1205	Sanjay Jain (University Delhi) A mechanism for the evolution of protocells without genes
1205 – 1240	Brato Chakrabarti (ICTS Bengaluru) The physical consequence of sperm gigantism
1240 – 1400	<i>Lunch</i>
1400 – 1435	Chirag Jain (IISc Bengaluru) Algorithms for assembling human genome sequence
1435 – 1510	Susan Idicula-Thomas (ICMR-NIRRH Mumbai) Multiscale systems analysis of host- <i>Candida albicans</i> interactions in vulvovaginal candidiasis
1510 – 1545	<i>Tea Break & Poster Session</i>
1545 – 1620	Olivier Martin (INRAE France) Inferring driver-to-target interactions in gene regulatory networks
1620 – 1655	Ram Rup Sarkar (NCL Pune) Multi-scale modelling of immune dysregulation under microgravity
1655 – 1730	Sangram Bagh (SINP Kolkata) Towards AI bacteria
1730 – 1900	<i>Poster Session and High Tea</i>
1900 – 2045	<i>Conference Dinner</i>