

Meeting Program		
Day 1: February 17, 2020 (Monday)		
10:00-10:45	Arrival + Registration	
10:45-11:00	Welcome & Introduction by BPS student chapter	
Session 1: Nanoscale Organization of Membranes - Chair: Durba Sengupta		
11:00-11:30	Siewert-Jan Marrink, U Groningen, Netherlands	Computational Modeling of Complex Membranes
11:30-12:00	Satyavani Vemparala, IMSC, India	Ternary Biomimetic Copolymers as Effective Antibacterial Agents
12:00-12:30	V A Raghunathan, RRI, India	Fluid-Fluid Coexistence in Lipid-Sterol Membranes
12:30-13:00	Poster Flash Talks	
13:00-15:00	Lunch + Poster + Breakout	
Session 2: Membrane Trafficking - Chair: Thomas Pucadyil		
15:00-15:30	Amit Chattopadhyay, CCMB, India	Role of Membrane Lipids in Endocytosis of G Protein-Coupled Receptors
15:30-16:00	Manojkumar Puthenveedu, U Michigan, USA	Spatial Encoding of GPCR Signaling by Membrane Trafficking
16:00-16:30	Padmini Rangamani, UCSD, USA	Multiscale Modelling of Clathrin-mediated Endocytosis
16:30-16:50	Break	
16:50-17:20	Arnab Gupta, IISER Kolkata, India	Unraveling the Decision Points in Polarized Membrane Trafficking: Lessons from 'Wilson Disease'
17:20-17:40	Dhiraj Bhatia, IIT Ghandinagar, India	Innovative DNA-Based Tools to Study Plasma Membrane-Based Receptor Organization and Trafficking in Live Cells
19:00	Banquet	
Day 2: February 18, 2020 (Tuesday)		
Session 3: Membranes and Physiology - Chair: A Surolia		
9:00-9:30	Siddesh Kamat, IISER Pune, India	An Integrated Chemoproteomics and Metabolomics Platform for Enzyme Function Annotation
9:30-10:00	Els Van Damme, Ghent U, Belgium	Lectin-Carbohydrate Interactions: From the Cytosol to the Membrane, and Beyond
10:00-10:30	Alessandro Prinetti, U Milan, Italy	Sphingolipid-Dependent Membrane Organization and Signaling Orchestrating Myelin Repair
10:30-10:50	Break	
Session 4: Membrane Topology - Chair: Padmini Rangamani		
10:50-11:20	Pramod Pullarkat, RRI, India	Actin Dynamics in Membrane Nanotubes
11:20-11:50	Kheya Sengupta, CNRS, France	Model Membranes as Test Cells for Adhesion Studies
11:50-12:20	TBA	TBA
12:20-13:00	Poster Flash Talks	
13:00-15:00	Lunch + Poster + Breakout	
Session 5: Membrane Mechanics and Physiology - Chair: Pramod Pullarkat		
15:00-15:30	Thomas Pucadyil, IISER Pune, India	Protein-Assisted Membrane Bending and Fission
15:30-16:00	Laurent Limozin, INSERM, France	From Single Nanobody-Antigen Bond to Antibody-Dependant Cell Cytotoxicity
16:00-16:30	Nagaraj Balasubramanian, IISER Pune, India	Cell-matrix Adhesion-Mediated Regulation of Membrane Trafficking
16:30-16:50	Break	
Session 6: Membranes and Glycans - Chair: Amit Chattopadhyay		
16:50-17:20	Subhash Basu, Notre Damme U, USA	Expression of Metastatic Cancer Cell Surface Glycome Codons During Apoptosis
17:20-17:50	Dipak Banerjee, University of Puerto Rico, USA	Membrane Component Biogenesis: Asparagine-linked (N-linked) Glycoproteins and their Regulation by Transmembrane Signaling
17:50-18:20	A Surolia, IISc, India	Structure, Carbohydrate Specificity and Therapeutic Potential of β -Prism Fold Lectins
19:00	Dinner	
Day 3: February 19, 2020 (Wednesday)		
Session 7: Membranes and Transport - Chair: Manojkumar Puthenveedu		
9:00-9:30	Jeet Kalia, IISER Bhopal, India	Employing the Double Knot Toxin-TRPV1 Ion Channel Complex as a Model System to Interrogate the Roles of Protein-Membrane Interactions in Protein Function
9:30-10:00	Mahendran KR, RGCB, India	Membrane Protein Pores for Single-Molecule Sensing
10:00-10:30	Nandita Madhavan, IIT Bombay, India	A Tetrapeptide Scaffold for Tunable Transmembrane Ion Transport
10:30-10:50	Jyothilakshmi Vadassery, NIPGR, India	Mechanistic role for Ca2+ Channels in Defense Signaling in Plants
10:50-11:10	Break	
Session 8: Membranes and Transport - Chair: Els Van Damme		
11:10-11:40	K Ganapathy Ayappa, IISc, India	Unravelling Protein-Membrane Interactions for α Pore-Forming Toxins: A Multiscale View
11:40-12:10	Kausik Chattopadhyay, IISER Mohali, India	Structural Basis and Functional Implications of the Membrane Pore Formation Mechanisms Employed by Bacterial Pore-Forming Toxins
12:10-12:40	Rochish Thaokar, IIT Bombay, India	Experiments, Molecular and Continuum Studies on Membrane Electroporation and Liposomes in Strong Electric Fields
12:40-13:00	Poster Flash talks	
13:00-15:00	Lunch + Poster + Breakout + Executive Council Meeting	

Session 9: Nanoscale Organization of Membranes - Chair: Siewert-Jan Marrink		
15:00-15:30	Anand Srivastava, IISc, India	Interpretation of Phase Boundary Fluctuation Spectra in Biological Membranes with Nanoscale Organization
15:30-16:00	Nicoleta Bondar, Freie U, Germany	Molecular Simulations and Role of Water in Membrane Proteins
16:00-16:30	Ankona Datta, TIFR Mumbai, India	Reversible Chemical Tools for Probing Phospholipid Dynamics
16:30-17:00	Break	
Session 10: Nanoscale Organization of Membranes - Chair: Nicoleta Bondar		
17:00-17:30	Ananya Debnath, IIT Jodhpur, India	Dynamic Coupling of Hydration Layers to Fluid Phospholipid Membranes: Intermittency and Multiple Time-Scale Relaxations
17:30-18:00	Moutusi Manna, IISER Bhopal, India	Omega-3 Polyunsaturated Fatty Acids Modulate Conformation and Toxicity of α -Synuclein by Modulating the Membrane Microenvironment through Lipid-Protein Interactions
18:00-18:30	Pinaki Talukdar, IISER Pune, India	Supramolecular Channel Machinery to Target Cancer with Ions
19:00	Dinner	
Day 4: February 20, 2020 (Thursday)		
Session 10: Functions of Membrane-Associated Proteins and Pathophysiology - Chair: Jeet Kalia		
9:00-9:30	Shalini Low-Nam, Purdue U, USA	Receptor Tyrosine Kinase Activation at the Cell Surface is Tuned by Environmental Mechanics
9:30-10:00	Sadashiv Karnik Cleveland Clinic, USA	Allosteric Modulation of Angiotensin Receptor
10:00-10:30	Manali Joshi, U Pune, India	Molecular Insights Towards Inter-Individual Variability in the β 2-Adrenergic Receptor
10:30-10:50	Break	
10:50-11:10	Sandhya Koushika, TIFR Mumbai, India	LRK-1/LRRK-2 Controls Biogenesis and Polarized Trafficking of Synaptic Vesicle Precursors Through the Redundant Actions of SYD-2/Liprin- α and AP Complexes
11:10-11:30	Hirak Chakraborty, Sambalpur University, India	Development of Peptide-based Membrane Fusion Inhibitors utilizing Host's Defense Mechanism
11:30-11:50	Moumita Bhaumik, ICMR-NICED, India	Unveiling the Role of Short Chain Fatty Acid in Cholesterol Regulation: Implication in Pathogen Colonization in Gut
11:50-12:20	Durba Sengupta, NCL Pune, India	Dynamic protein interfaces and conformational landscapes of membrane protein complexes
12:30-13:00	Poster Flash talks	
13:00-15:00	Lunch + Posters	
Session 12: Organelles and biogenesis - Chair: Arnab Gupta		
15:00-15:20	Mahendra Sonawane, TIFR Bombay, India	Concerted activities of Myosin Vb and TOR pathway regulate membrane biogenesis to promote compensatory cell size increase in the developing epidermis
15:20-15:50	Dibendyu Bhattacharya, ACTREC, Navi Mumbai, India	Interplay and Relative Positioning of Functional Sites of Early Secretory Pathway
15:50-16:10	Break	
Session 13: Wrap Up - Chair: Thomas Pucadyil		
16:10-16:40	Sponsored talks (RSC, DAAD)	
16:40-17:00	Poster prizes	
17:00	Conclusion	