

SCIENTIFIC PROGRAM

Venue: MK Bhan Auditorium, NCR Biotech Science Cluster, Faridabad

Tuesday, 15th November 2022

9.30 AM Inauguration

Welcome address by Prof. Sudhanshu Vratı (RCB) and Prof. Iqbal Parker (IUBMB)

Session I: Structural Virology

Chairs: Prof. Deepak T. Nair, Dr. Manjula Kalia

10.00-10.30 AM	L1 (Online)	Prof. Jack Johnson, Scripps Research Institute, USA Decoding maturation of a eukaryotic virus with cryo-EM structures of five intermediates
10.30-11.00 AM	L2	Prof. Manidipa Banerjee, Indian Institute of Technology, Delhi, India The role of a small membrane active protein in the assembly and egress of Chikungunya Virus from host cells
11.00-11.30 AM:	Tea Break	
11.30-12.00 PM	L3	Prof. BVV Prasad, Baylor College, Houston, USA Structural underpinnings of rotavirus entry, replication, and morphogenesis
12.00-12.30 PM	L4	Prof. Kalyan Das, Rega Institute, Leuven, Belgium Targeting viral polymerases – rewards and challenges
12.30-1.00 PM	L5	Prof. Shailly Tomar, Indian Institute of Technology, Roorkee, India Structure-assisted targeting of SARS-CoV-2 proteases for discovery of antivirals
1.00-2.00 PM:	Lunch	

Session II: SARS-CoV-2

Chairs: Prof. Sudhanshu Vratı, Prof. Kalyan Das

2.00-2.30 PM	L6	Prof. Kartik Chandran, Albert Einstein School of Medicine, USA Dissecting and Disabling the Spike Proteins of Emerging Enveloped Viruses
2.30-3.00 PM	L7	Dr. Shashank Tripathi, Indian Institute of Science, Bangalore, India Anti-Interferon armamentarium of SARS-CoV-2
3.00-3.30 PM	L8	Dr. Krishnan H. Harshan, Centre for Cell and Molecular Biology, Hyderabad, India Evolution of SARS-CoV-2 Variants and Silencing of Host Innate Response
3.30-3.45 PM	S1	Dr. Indranil Banerjee, Indian Institute of Science Education and Research, Mohali, India Diphenylurea derivatives broadly inhibit SARS-CoV-2 and influenza A virus infection by targeting viral endocytosis
3.45-4.00 PM	S2	Oyahida Khatun, Indian Institute of Science, Bangalore, India Identification of prognostic markers and therapeutic targets for COVID-19 through an OMICS meta-analysis and validation approach
4.00-4.30 PM:	Tea Break	

4.30-5.00 PM	L9	Prof. Bart Haagmans, Department of Virosciences, Erasmus MC Rotterdam, Netherlands Phenotypic evolution of SARS-CoV-2
5.00-5.30 PM	L10	Dr. Santosh Chauhan, CSIR-Centre for Cellular and Molecular Biology, Hyderabad, India Transgenic Mouse Models Support a Protective Role of Type 1 IFN Response in Lethal SARS-CoV-2 Infection-related Lung and Brain Neuropathology
5.30-6.00 PM	L11	Dr. Pragya Yadav, National Institute of Virology, Pune, India Immune response against Covaxin and Covishield vaccines
6.00-6.30 PM	L12 (Online)	Prof. Aneel Aggarwal, Icahn School of Medicine at Mount Sinai, New York Targeting RNA methylation in Zika and SARS-CoV-2
7.00 PM	Dinner	

Wednesday, 16th November 2022		
Session III: Host-Pathogen Interactions		
Chairs: Prof. Bart Haagmans, Dr. Krishnan H. Harshan		
9.30-10.00 AM	L13	Prof. Sudhanshu Vрати, Regional Centre for Biotechnology, Faridabad, India Japanese Encephalitis Virus NS4A Protein Interacts with PTEN-Induced Kinase 1 (PINK1) and Promotes Mitophagy in Infected Cells
10.00-10.30 AM	L14	Prof. Anirban Basu, National Brain Research Centre, Gurgaon, India Molecular basis of virus induced -acute flaccid paralysis; Correlation with motor neuron dysfunction
10.30-11.00 AM	L15	Dr. Sumana Sanyal, University of Oxford, United Kingdom Lipid droplets and the host-pathogen dynamic
11.00-11.30 AM:	Tea Break	
11.30-12.00 PM	L16	Prof. Saumitra Das, Indian Institute of Science, Bangalore, India RNA binding proteins and RNA viruses: A journey together
12.00-12.30 PM	L17	Dr. Ashley Lauren St. John, Duke NUS-Medical School, Singapore Host-targeted therapeutics for dengue
12.30-12.45 PM	S3	Dr. Atreye Majumdar, National Brain Research Centre, Haryana, India Role of short chain fatty acids in Japanese encephalitis virus infection; an in vitro whole genome microRNA profiling study
12.45-1.00 PM	S4	Dr. Riya Sarkar, Regional Centre for Biotechnology, Faridabad, India Japanese encephalitis virus hijacks ERAD regulators to derive membranous replication complex
1.00-2.00 PM:	Lunch	

Session IV: Host-Pathogen Interactions		
Chairs:		<i>Prof. Adolfo Garcia-Sastre, Dr. Karthigeyan Dhanasekaran</i>
2.00-3.00 PM	Plenary L18 (Online)	Prof. Ralf Bartenschlager, University of Heidelberg, Germany New insights into the flavivirus replication cycle and use of gained knowledge for the development of antiviral therapy
3.00-3.30 PM	L19	Dr. Laureant Chatel-Chaix, Armand-Frappier Sante' Biotechnologie Research Centre, Canada Mitochondrial manipulations by flaviviruses
3.30-4.00 PM	L20	Dr. E. Sreekumar, Institute of Advanced Virology, Kerala India Host factors restricting Chikungunya virus infection
4.00-4.30 PM	L21	Dr. Sankar Bhattacharyya, Translational Health Science and Technology Institute, Faridabad, India Dengue virus replication inhibits megakaryopoiesis through inhibition of ROS accumulation in differentiating megakaryocytes
4.30-6.30 PM:	Tea & Poster Session 1	
6.30 PM:	Cultural Program	
7.30 PM:	Dinner	

Thursday, 17 th November 2022		
Session V: Immunogens, Antivirals, & Vaccine Design		
Chairs:		<i>Prof. Saumitra Das, Prof. Kartik Chandran</i>
9.30-10.00 AM	L22	Prof. Raghavan Varadarajan, Indian Institute of Science, Bangalore, India Design of a thermostable SARS-CoV-2 vaccine formulation
10.00-10.30 AM	L23	Prof. Adolfo Garcia-Sastre, Mount Sinai Medical Centre, New York, USA The SARS-CoV-2 interactome as a guide for antiviral discovery
10.30-11.00 AM	L24	Dr. Stalin Raj, Indian Institute of Science, Education and Research, Trivandrum, India Characterizations of SARS-CoV-2 Spike Variants to Understand Viral Entry and Development of Vaccine Candidate
11.00-11.30 AM:	Tea Break	

Session VI: Immune Responses-1		
11.30-12.00 PM	L25	Prof. Jayanta Bhattacharya, Translational Health Science and Technology Institute, Faridabad, India Diversity in neutralizing antibody responses developed in an unvaccinated SARS-CoV-2 infected individual
12.00-12.30 PM	L26	Dr. Anmol Chandele, International Centre for Genetic Engineering and Biotechnology, New Delhi, India B cell responses during acute febrile natural dengue infection
12.30-12.45 PM	S5	Dr. Sourav Halder, CSIR-Central Drug Research Institute Lucknow, India New Insights into Influenza Virus Fusion

12.45-1.00 PM	S6	Surender Rawat, Regional Centre for Biotechnology, Faridabad, India Dengue virus induces phenotypic modulation to produce pro-inflammatory neutrophils with endothelium damaging potential
1.00-2.00 PM:	Lunch	

Session VII: Immune Responses-2		
Chairs: Prof. Raghavan Varadarajan, Dr. Laureant Chatel-Chaix		
2.00-2.30 PM	L27	Dr. Nimesh Gupta, National Institute of Immunology, New Delhi, India A Tfh-like T helper subset drives antibody response to dengue virus
2.30-3.00 PM	L28	Dr. Jayasri Das Sarma, Indian Institute of Science, Education and Research, Kolkata, India The CD40/CD40 ligand system in linking acute neuroinflammation with chronic progressive demyelination
3.00-3.30 PM	L29	Prof. Milan Surjit, Translational Health Science and Technology Institute, Faridabad, India Exploring the cross-talk between human endogenous retroviruses and SARS-CoV-2
3.30-3.45 PM	S7	Sharda Kumari, Regional Centre for Biotechnology, Faridabad, India Characterization of circulating exosomes and their immunopathogenic role in dengue virus infection
3.45-6.00 PM:	Group Photo, Tea & Poster Session 2	

Session VIII: Virus Replication		
Chairs: Dr. Manjula Kalia, Dr. Arup Banerjee		
6.00-6.30 PM	L30 (Online)	Prof. Volkar Lohmann, University of Heidelberg, Germany Assessing the replication fitness of Hepatitis C Virus wildtype isolates in cell culture
6.30-6.45 PM	S8	Sanchari Chatterjee, Institute of Life Sciences, Bhubaneshwar, India DNA damage response signaling is essential for efficient Chikungunya virus replication
6.45-7.00 PM	S9	Dr. Ajit Chande, Indian Institute of Science Education and Research, Bhopal Post-entry viral replication events targeted by the antiviral protein SERINC5
7.00 PM:	Gala Dinner	

Friday, 18th November 2022

Session IX: Virus Evolution

Chairs: Prof. R P Roy, Dr. Jayasri Das Sarma

9.30-10.00 AM	L31 (Online)	Prof. Scott Weaver, University of Texas Medical Branch, Galveston, Texas Mechanisms of Urban Arbovirus Emergence
10.00-10.30 AM	L32	Prof. Arindam Mondal, Indian Institute of Technology, Kharagpur, India Tracking the mutational hotspots to predict adaptation of bat influenza viruses into non-bat hosts
10.30-11.00 AM	L33	Dr. Sweety Samal, Translational Health Science and Technology Institute, Faridabad, India Mapping of SARS-CoV-2 mutations to understand the mechanisms of SARS-CoV-2 entry and fusion into cells

11.00-11.30 AM: Tea Break

Session X: Antivirals

Chairs: Dr. Ashley St. John, Dr. Shashank Tripathi

11.30-12.00 PM	L34	Prof. Prasenjit Guchhait, Regional Centre for Biotechnology, Faridabad, India Diabetic mice develop severe SARS CoV-2 infection: Dietary supplementation of α -ketoglutarate and metformin inhibits infection by restoring interferon responses
12.00-12.15 PM	S10	Dr. Tripti Srivastava, Translational Health Science and Technology Institute, Faridabad, India Addressing the challenges of the RNA virus; genetic diversity, through structurally occluded conserved epitopes directed vaccine candidate
12.15-12.30 PM	S11	Supreeti Mahajan, Indian Institute of Technology, Roorkee, India G3BP1 host protein as an antiviral target against Chikungunya virus
12.30-12.45 PM	S12	Ragini Agarwal, Indian Institute of Science, Bangalore, India H2S gas mediated suppression of HIV-1 and SARS-CoV-2
12.45-1.00 PM	S13	Surendra Kumar Prajapat, Regional Centre for Biotechnology, Faridabad, India Pharmacological induction of autophagy as a potential therapeutic target for Japanese encephalitis

1.00-1.30 PM Closing ceremony

1.30 PM Lunch