

Indo-US Meeting Neuron-Glia Interactions in Ocular Development and Diseases VIRTUAL MEET VIRTUAL MEET



January 9-14, 2022

PROGRAM SCHEDULE

Day 1 - Sunday, January 9, 2022

SESSIONS	USA LOCAL TIME	INDIAN TIME	SPEAKERS AND TOPIC	
Session 1: Inauguration of Indo-US meeting Chairs: Inderjeet Kaur and Ashok Kumar				
Inauguration		18.00-18.05	Inderjeet Kaur (LV Prasad Eye Institute, Hyderabad, India) Introducing the theme of the meeting	
	7.35-7.40 AM (Detroit)	18.05-18.10	Ashok Kumar (Wayne State University, Detroit, USA) The relevance of the themes from an Indo-US perspective	
		18.10-18.15	Sayan Basu (LV Prasad Eye Institute, Hyderabad, India) Welcome address	
From IUSSTF		18.15-18.25	Nandini Kannan (IUSSTF, New Delhi, India) A brief note from the IUSSTF	
Keynote-I		18.25-18.55	Shubha Tole (Tata Institute of Fundamental Research, Mumbai, India) How to make a hippocampus	
Inaugural Lecture	8.25-8.55 AM (Pittsburgh)	18.55-19.25	Debasish Sinha (University of Pittsburgh Medical Centre, Pittsburgh, USA) Rat spontaneous mutations affecting glial cells of the optic nerve	
Meet and Greet		19.25-19.30	Introduction of the participants	

Day 2 - Monday, January 10, 2022

SESSIONS	USA LOCAL TIME	INDIAN TIME	SPEAKERS AND TOPIC
Session II:Theme I: Neuron-glia crosstalk in Ocular development and diseases Chairs: Subhabrata Chakrabarti and Bikash Pattnaik			
Theme Talk-I		18.00-18.20	Moulinath Acharya (National Institute of Biomedical Genomics, Kalyani, India) Investigating the role of WTI transcription factor in the pathogenesis of developmental glaucoma spectrum disorders
Theme Talk-II	7.50-8.10 AM (Massachusetts)	18.20-18.40	Laura Moreno-Leon (Iveric Bio, Massachusetts, USA) Improved photoreceptor survival in degenerating retinas treated by gene therapy
Theme Talk-III	7.10-7.30 AM (Wisconsin)	18.40-19.00	Bikash Pattnaik (University of Wisconsin, Madison, USA) Bringing retinal pigment epithelium (RPE) into the mix of neuron glia interactions
Q&A		19.00-19.10	Question and Answer Session
Keynote-II	8.40-9.10 AM (Florida)	19.10-19.40	Sanjoy K Bhattacharya (University of Miami, Florida, USA) Axon Regeneration: Integrating high throughput and computational approaches
Theme Talk-IV	9.10-9.30 AM (Philadelphia)	19.40-20.00	Kenneth S Shindler (University of Pennsylvania Scheie Eye Institute, Philadelphia, USA) Role of the Spike glycoprotein in mouse coronavirus induced optic neuritis
Theme Talk-V		20.00-20.20	Lopamudra Giri (Indian Institute of Technology, Hyderabad, India) Live cell calcium imaging and analysis as a robust method to study neuron-glial system under stressed condition
Focus Group Discussion		20.20-21.00	Focus group 1: Discussion on possible research collaborations



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Day 3 - Tuesday, January 11, 2022

SESSIONS	USA LOCAL TIME	INDIAN TIME	SPEAKERS AND TOPIC		
	Session III: Theme 2: Glial interplay in infections and inflammation Chairs: Ashok Kumar and Joveeta Joseph				
Theme Talk-VI		18.00-18.20	Jayasri D Sarma (Indian Institute of Science Education and Research, Kolkata, India) The interplay between Astrocytic Gap junction protein Connexin 43 and inflammatory mediators in Murine 8-Coronavirus -induced neuroimmune modulation		
Theme Talk-VII		18.20-18.40	Soumyava Basu (LV Prasad Eye Institute, Hyderabad, India) Role of circulating monocytes in a Zebrafish model of ocular TB		
Theme Talk-VIII		18.40-19.00	Nivedita Chatterji (Vision Research Foundation, Chennai, India) Elevated glucose transporter-I expression in retinal Muller glia is a potential driver of accelerated aging at the retina		
Q&A		19.00-19.10	Question and Answer Session		
Keynote-III	8.40-9.10 AM (New York)	19.10-19.40	Shane Liddelow (NYU School of Medicine, New York, USA) What do reactive astrocytes (really) do?		
Theme Talk-IX	8.10-8.30 AM (Chicago)	19.40-20.00	Deepak Shukla (University of Illinois, Chicago, USA) Optineurin, the product of a gene implicated in glaucoma, is a restriction factor for herpes simplex virus infection of the eye and the neurons		
Focus group Discussion		20.00-21.00	Focus group 2: Discussion on possible research collaborations		

Day 4 - Wednesday, January 12, 2022

SESSIONS	USA LOCAL TIME	INDIAN TIME	SPEAKERS AND TOPIC
Session III (Continued):Theme 3: Role of glia in the pathogenesis of retinal degenerative diseases and regeneration Chairs: Hemant Khanna and Ghanshyam Swarup			
Theme Talk-X		18.00-18.20	Rajesh Ramachandran (Indian Institute of Science Education and Research, Mohali, India) Pten is essential for various gene regulatory network during müller glia-mediated zebrafish retina regeneration
Theme Talk-XI		18.20-18.40	Ghanshyam Swarup (Centre for Cellular & Molecular Biology, Hyderabad, India) Glaucoma-associated M98K polymorphism of OPTN sensitizes retinal cells to ER stress and TNF alpha
Theme Talk-XII		18.40-19.00	Satyavrata Samavedi (Indian Institute of Technology, Hyderabad, India) Development of polymeric scaffolds for controlling dysfunctional microglial responses: towards therapeutic intervention in degenerative diseases
Q&A		19.00-19.10	Question and Answer Session
Keynote-IV	8.40-9.10 AM (Durham)	19.10-19.40	Daniel Saban (Duke University, Durham, USA) The role of microglia in outer retinal degenerative diseases
Theme Talk-XIII	9.10-9.40 AM (Columbus)	19.40-20.00	Nagaraj Kerur (The Ohio State University, Columbus, USA) Oxidative DNA Damage and Innate Immunity: Implications for retinal degeneration
Focus Group Discussion		20.00-21.00	Focus group 3: Discussion on possible research collaborations



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Day 5 - Thursday, January 13, 2022

SESSIONS	USA LOCAL TIME	INDIAN TIME	SPEAKERS AND TOPIC	
	Session IV:Theme 4: Emerging technologies and model systems for studying neuron-glia crosstalk Chairs: Thirumurthy Velpandian and Inderjeet Kaur			
Theme Talk-XIV		18.00-18.20	S Senthilkumari (Aravind Medical Research Foundation, Madurai, India) Human organotypic retinal cultures (HORCs) as an ex vivo model system to study neurodegeneration in glaucoma	
Theme Talk-XV		18.20-18.40	Thirumurthy Velpandian (AIIMS, New Delhi, India) Functional Assessment of Neuro-glial interaction for Pharmacological Interventions	
Theme Talk-XVI	8.10-8.30 AM (Philadelphia)	18.40-19.00	Venkata R M Chavali (University of Pennsylvania, Philadelphia, USA) Pluripotent Stem Cell Derived Retinal Ganglion Cells as models to study Neurodegeneration.	
Q&A		19.00-19.10	Question and Answer Session	
Keynote-V	8.40-9.10 AM (Maryland)	19.10-19.40	Kapil Bharti (National Eye Institute, Bethesda, Maryland, USA) Emerging technologies and model systems for studying neuron-glia crosstalk	
Keynote-VI	9.10-9.40 AM (Miami)	19.40-20.10	Laura Bianchi (University of Miami, Miami, USA) Using C. Elegans as a model to identify novel mechanisms of glia-neuron crosstalk	
Theme Talk-XVII	9.40-10.00 AM (Indianapolis)	20.10-20.30	Tasneem P Sharma (Indiana University School of Medicine, Indianapolis, USA) Retinal neurodegeneration: A novel human ocular model system	
Focus Group Discussion		20.30-21.00	Focus group 4: Discussion on possible research collaborations	

Day 6 - Friday, January 14, 2022

Day 0 - Filuay, January 14, 2022			
SESSIONS	USA LOCAL TIME	INDIAN TIME	SPEAKERS AND TOPIC
		Chai	Session V: Young Scientist Presentations rs: Hemant Khanna and Subhabrata Chakrabarti
Young Scientist Presentations		18-00-18.10	Young Scientist Presentation-I Susmita Das (Wayne State University School of Medicine, Detroit, USA) Muller glial innate immune response and therapeutic efficacy of non-antibiotic drugs in the treatment of staphylococcal endophthalmitis
		18.10-18.20	Young Scientist Presentation-II Vaibhav Dhyani (Indian Institute of Technology, Hyderabad, India) A novel setup for in situ dynamic 3D-imaging of microglia cells under hypoxia using laser scanning confocal microscopy: Effect of oxygen deprivation on mitochondrial calcium and ROS generation
		18.20-18.30	Young Scientist Presentation-III Mahua Maulik (Indian Institute of Science Education and Research, Kolkata, India) Amyloid- β regulates cellular trafficking of the gap junction protein connexin 43 in astrocytes
		18.30-18.40	Young Scientist Presentation-IV Gowtham L (AIIMS, New Delhi, India) Hearing neuro-glial crosstalk with omics approach
		18.40-18.50	Young Scientist Presentation-V Sushma Vishwakarma (LV Prasad Eye Institute, Hyderabad, India) Primary mixed retinal cells generated from human cadaveric retina: as a model system for studying the pathological mechanisms in retinal neurodegeneration
		18.50-19.00	Young Scientist Presentation-VI Atul Garkal (Nirma university, Ahmedabad, India) Long-acting injectable implant of anti-VEGF antibody fragment in treatment of age-related macular degeneration
		19.00-19.10	Young Scientist Presentation-VII Mansi Chaudhary (Indian Institute of Science Education and Research, Mohali, India) Elucidating the role of YYI during zebrafish retina regeneration
			Session VI: Focus Group Presentations Chairs: Inderjeet Kaur and Ashok Kumar
Focus Group Presentations	19.10-20.10	Focus Group Presentation 1: Ocular development and regeneration	
		10 10 20 10	Focus Group Presentation 2: Infections and inflammation
		Focus Group Presentation 3: Neurodegeneration and diseases	
			Focus Group Presentation 4: Novel model system for studying neurodegeneration
Final words		20.10-20.20	D Balasubramanian (LV Prasad Eye Institute, Hyderabad, India) Overall assessment of the meeting
Valedictory		20.20-20.30	Vote of Thanks