

International Conference/ Workshop

THE FUTURE IS HERE II

JANUARY 9TH- 12TH, 2025

Exploring New Frontiers of Ocular Research



PROGRAM SCHEDULE

Day 1: Thursday, 9th January 2025

Timings & Venue	Event & Session details	
11:30 – 12:00 PM	LVPEI TOUR	
12:00 – 01:00 PM Venue: Art Gallery & Patodia Auditorium, LVPEI	Working Lunch & Registration	
01:00 PM – 01:30 PM Venue: Patodia Auditorium, LVPEI	Welcome Address	
01:30 PM – 06:00 PM	FUNDING, COLLABORATIONS & TRANSLATIONAL ROADMAP Session Moderators: Sayan Basu & Vivek Singh Coordinators: Jilu Jaffet & Sonali Mohapatra	Sayan Basu (LVPEI) Kapil Bharti (NIH) Vivek Singh (LVPEI) Stefan Schrader (University of Oldenburg) Virendra Sangwan (Dr.Shroff's Charity Eye Hospital) Saurabh Srivastava (NIPER)
01:30 PM – 01:45 PM	Kick off and Welcome: Sayan & Vivek	
Speakers/Experts/Panelists		
01:45 PM – 02:05 PM	SPEAKER TITLE	: Kapil Bharti : Indo-US Collaborations and Opportunities
02:05 PM – 02:25 PM	SPEAKER TITLE	: Stefan Schrader : Indo-European Grant and Collaboration Opportunities
02:25 PM – 02:45 PM	SPEAKER TITLE	: Virendra Sangwan : Innovation and Collaboration
02:45 PM – 03:05 PM	SPEAKER TITLE	: Sujata Mohanty : Regulation for Clinical Translation in India and government's perspective
03:05 PM – 03:25 PM	SPEAKER TITLE	: Geeta Vemuganti : Importance of global Collaborations in Research
03:25 PM – 03:40 PM	SPEAKER TITLE	: DBT REPRESENTATIVES : DBT's Vision towards the Future of Indian Research
PAUSE, TAKE A BREATH ! (03:40 PM – 04:00 PM) / Group photo session		
04:00 PM – 04:10 PM	SPEAKER TITLE:	: Rani Pallavi Role of Granting Agencies in Career Development
04:10 PM – 04:20 PM	SPEAKER TITLE	: Ponnari Gottipati : Overview of Research Funding and Collaborative Initiatives at LVPEI
04:20 PM – 04:30 PM	SPEAKER TITLE	: Saurabh Srivastava : NIPER's Role in Shaping the Future of Ocular Pharmacology Research
04:30 PM – 04:40 PM	SPEAKER TITLE	: Sayan Basu : Stem Cell and Biomaterial research in LVPEI
05:00 PM – 05:30 PM	SPEAKER TITLE	: Debojyoti Chakraborty and Souvik Maiti : Advancing Gene Editing Therapies to resource limited settings

NETWORKING/DINNER : 06:30 PM onwards ; VENUE: **Rendezvous, Taj Vivanta**
ONLY FOR DELEGATES, SPEAKERS & FACULTY MEMBERS

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Day 2: Friday, 10th January 2025 (Session-1)

Timings & Venue	Event & Session details	
09:00 AM – 1:00 PM	<p>CELL AND GENE BASED THERAPY: REPAIR, REGAIN AND REGENERATION</p> <p>Session moderators: Arkasubhra Ghosh, Indumathi Mariappan</p> <p>Coordinators: Tejaswini Pingali & Gufran Siddiqui</p>	<p>Stefan Schrader (University of Oldenburg) Sonja Mertsch (University of Oldenburg) Kapil Bharti (NEI,USA) Kiran Kumar Bokara (CCMB) Arkasubhra Ghosh (NN) Debojyoti Chakraborty (IGIB) Geeta Vemuganti (UOH) Vivek Singh (LVPEI)</p>
Speakers/Experts/Panelists		
09:00 AM – 09:25 AM	<p>SPEAKER :Sonja Mertsch TITLE :Development of Causative Treatment strategies for Lacrimal Gland Insufficiency by Tissue Engineering and Cell Therapy</p>	
09:25 AM – 09:50 AM	<p>SPEAKER :Kapil Bharti TITLE :Patient-specific iPSC-derived 3D Outer Blood Retinal Barrier For in vitro AMD Modeling and Drug Testing</p>	
09:50 AM – 10:15 AM	<p>SPEAKER :Arkasubhra Ghosh TITLE :Mutation independent approaches for ocular gene therapy</p>	
10:15 AM – 10:40 AM	<p>SPEAKER :Koushik Chakraborty TITLE : Gene editing and cellular programming for treating ocular dystrophies</p>	
10:40 AM – 11:05 AM	<p>SPEAKER :Stefan Schrader TITLE :Corneal repair and regeneration—from keratoprosthesis to bioartificial constructs</p>	
TIMEOUT ! (11:05 AM – 11:30 AM) / Group photo session		
11:30 AM – 11:40 AM	<p>SPEAKER :Ruchi Sharma TITLE :Human Endogenous Retrovirus K (HER-K) Upregulation Triggers iPSCs-RPE and Mice Model.</p>	
11:40 AM – 11:50 PM	<p>SPEAKER :Trilokyanath Panigrahi TITLE :Novel rationally designed AAV mutants enhanced transgene delivery</p>	
11:50 AM – 12:00 PM	<p>SPEAKER :Vrushali Deshpande TITLE :Characterization of serotype and process dependent, novel PTMs on AAV capsids</p>	
12:00 PM – 12:15 PM	<p>SPEAKER :Rajashri Pal TITLE :Developing the first pluripotent stem cell based therapy for d-AMD in India</p>	
12:15 PM – 12:30 PM	<p>SPEAKER :Raja Narayanan TITLE :iPSC-derived RPE for macular dystrophy; LVPEI Update</p>	

BON APPÉTIT (01:00 PM – 02:00 PM) ; VENUE: Imperia, Taj Vivanta ,Hyderabad

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PROGRAM SCHEDULE

Day 2: Friday, 10th January 2025(Session-2)

Timings & Venue	Event & Session details	
02:00 PM - 07:00 PM	MICROBIOME & BIOMARKERS: Tears/Ocular Surface Session Moderators: Merlies Gijs & Swati Singh Coordinators: Rohini Sonar & Anupama Hela	Swati Singh (LVPEI) Swaminathan Sethu Marlies Gijs (Maastricht University) Vivek Singh (LVPEI) Arunasri (LVPEI) Sachin Shukla (LVPEI) Sanhita Roy (LVPEI)
Speakers/Experts/Panelists		
02:15 PM - 02:35 PM	SPEAKER :	Swaminathan Sethu
	TITLE :	Non-invasive tear fluid based-ocular immune monitoring for preventive and personalized ophthalmic care
02:35 PM - 03:00 PM	SPEAKER :	Marlies Gijs
	TITLE :	Tear fluid biomarkers: methodological practices and clinical applications
03:00 PM - 03:15 PM	SPEAKER :	Swati Singh
	TITLE :	Lid Margin Microbiome
03:15 PM - 03:30 PM	SPEAKER :	Arunasri
	TITLE:	Microbiome of the Ocular Surface
03:30 PM - 03:40 PM	SPEAKER :	Anahita Kate
	TITLE :	Ocular Allergy and Diagnostics
TIMEOUT ! (03:40 PM - 04:00 PM) / Group photo session		
04:00 PM - 04:15 PM	SPEAKER :	Rupjyothi Talukdar
	TITLE :	Gut Microbiome in Pancreatic Diabetes
04:15 PM - 04:30 PM	SPEAKER :	Jerome Ozkan
	TITLE :	The Ocular Microbiome in Dry Eye Disease
04:30 PM - 04:45 PM	SPEAKER :	Sachin Shukla
	TITLE :	EVs: The emerging biomarkers in ocular research
04:45 PM - 05:00 PM	SPEAKER :	Venkata Vamsi Krishna Venuganti
	TITLE :	Microneedle patch to deliver therapeutics to the anterior and posterior segment of the eye.
05:00 PM - 05:15 PM	SPEAKER :	Deepak Chitkara
	TITLE :	Precision Nanomedicine for Eye Disorders: CRISPR/Cas RNP Delivery via Lipo-Polymeric Nanoplexes
05:00 PM - 05:15 PM	SPEAKER :	Neelesh Mehra
	TITLE :	Novel Formulation for Ocular disorder.
05:15 PM - 05:30 PM	SPEAKER :	Vivek Singh
	TITLE :	Application of Animal Models in Ocular Research-LVPEI update
05:30 PM - 06:15 PM	SPRINT TALKS (E-Poster presentation, 2+1 mins)	
Strings-e-Santoor. A musical session by Dr. Debojyoti Chakraborty		

GALA DINNER : 06:30 PM onwards; VENUE: Imperia, Taj Vivanta, Hyderabad

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PROGRAM SCHEDULE

Day 3: Saturday, 11th January 2025(Session-1)

Timings & Venue	Event & Session details	
09:00 AM - 01:00 PM	<p>EXPLORING BIOMATERIALS IN OCULAR DISEASE RESEARCH</p> <p>Session Moderators: Vineet Joshi and Biman Mandal Coordinators: Arun Kumar Raut Sahithi Macharla Parul Chaurasia</p>	<p>Biman Mandal (IIT Guwahati) Nirmal Jayabalan (BITS Pilani, Hyderabad) Neetu Singh (IIT Delhi) Anil Kumar P.R (Sree Chitra Tirunal Institute) Kaushik Chatterjee (IISC Bangalore) Aravind Kumar Rengan (IIT Hyderabad) Gauri Balachandran (IIT BHU) Falguni Pati (IIT Hyderabad) Vineet Joshi (LVPEI) Amit Asthana (NIPER)</p>
Speakers/Experts/Panelists		
09:00 AM - 09:25 AM	SPEAKER TITLE	:Biman Mandal :3D printed human organs and Tissues: The way forward in healthcare
09:25 AM - 09:50 AM	SPEAKER TITLE	:Kaushik Chatterjee :Tissue Bioengineering and 3D Bioprinting in clinical Applications
09:50 AM - 10:15 AM	SPEAKER TITLE	:Neetu Singh :New Strategies for Monitoring Cancer Progression and Tumor Margins
10:15 AM - 10:40 AM	SPEAKER TITLE	:Anil Kumar P. R :Bioengineered tissue for regenerative medicine and organoid models
REFRESHMENT BREAK (10:40 AM - 11:00 AM)		
11:00 AM - 11:20 AM	SPEAKER TITLE	:Nirmal Jayabalan :Empowering Ocular Drugs: A shift towards biomimetic strategies
11:20 AM - 11:40 AM	SPEAKER TITLE	:Aravind Kumar Rengan :Biodegradable nanohybrid systems for theranostics
11:40 AM - 12:00 PM	SPEAKER TITLE	:Gowri Balachandran :From Organoids to organ-on-a-chip: Transforming biology in 3D for meaningful pursuits
12:00 PM - 12:20 PM	SPEAKER TITLE	:Falguni Pati :3D Bioprinting of Anisotropic and Adhesive Corneal Grafts using Decellularized Corneal Matrix-based Multi-materials System
12:20 PM - 12:40 PM	SPEAKER TITLE	:Charanya Ramachandra : Mimicking native tissue architecture for engineering the endothelium
12:40 PM - 01:00 PM	SPEAKER TITLE	:Vineet Joshi :Corneal Bioprinting-Clinicians Perspective
01:00 PM - 01:30 PM	Brainstorming Session moderated by Vineet Joshi and Gowri Balachandran	
AWARD CEREMONY / VOTE OF THANKS / GROUP PHOTO SESSION		
BON APPÉTIT (01:30 Onwards) ; VENUE: ART GALLERY, LVPEI		

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PROGRAM SCHEDULE

Day 3: Saturday, 11th January 2025 (Session-2)
HANDS-ON WORKSHOP IN 3-D BIOPRINTING
(For only 20 registered members)

Timings & Venue	Event & Session details	
02:00 PM - 06:00 PM	HANDS-ON WORKSHOP: EXTRUSION BIOPRINTING	
Speakers/Experts/Panelists		
02:00 PM- 2:10 PM	SPEAKER : Amit Asthana TITLE : Bioprinting in 3D: Shaping the Future of Regenerative Medicine	
02:10 PM - 03:15 PM	Overview of Extrusion Bioprinting Technology and its Applications <ul style="list-style-type: none"> Introduction to 3D modeling, demonstrate how to design basic models 	Amit Asthana (NIPER) Vivek Singh (LVPEI) Swati Singh (LVPEI) Vijeta Jaiswal (CELLINK)
	Extrusion Bioprinter Setup and Calibration <ul style="list-style-type: none"> Setup of the print head and material feed systems, and how to configure the software for precise printing 	
REFRESHMENT BREAK (03:15 PM - 03:45 PM)		
03:45 PM - 06:00 PM	Bioink Formulation and Flow Characteristics <ul style="list-style-type: none"> Demonstrate extrusion of bioinks to understand flow characteristics and adjust for optimal performance 	Vijeta Jaiswal (CELLINK) Swati Singh (LVPEI) Arun Kumar Raut Sahithi Macharla
	Printing Basic Geometric Structures <ul style="list-style-type: none"> Demonstrate the printing of basic geometric shapes Explain the importance of layer adhesion and initial post-processing techniques such as curing 	
	Advanced Printing and Multi-Material Techniques <ul style="list-style-type: none"> Demonstrate printing of complex, multi-material models 	

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PROGRAM SCHEDULE

Day 4: Sunday, 12th January 2025

Exploring the Future of Biomaterials and 3D Bioprinting: Hands-On Workshops (Registered members only)

Timings & Venue	Event & Session details	
09:30 AM - 01:00 PM	HANDS-ON WORKSHOP: DIGITAL LIGHT PROCESSING-BASED BIOPRINTING	
Speakers/Experts/Panelists		
09:30 AM - 01:00 PM	Overview of Digital Light Processing-based Bioprinting Technology and its Applications	Vijeta Jaiswal (CELLINK) Vineet Joshi (LVPEI) Arun Kumar Raut Parul Chaurasia Sahithi Macharla
	Printer Setup and Calibration Printing High-Resolution Models • Discuss the impact of light exposure on layer curing and detail accuracy	
	Organoids, 3D and 2D Cultures	Vivek Singh (LVPEI)
	Complex Printing Techniques and Multi-Material Applications	Vijeta Jaiswal (CELLINK) Arun Kumar Raut Sahithi Macharla
	Reflection and Q&A • Review key learnings, collect feedback, and address any remaining questions in a Q&A session	Vivek Singh (LVPEI) Vineet Joshi (LVPEI) Vijeta Jaiswal (CELLINK)
	CERTIFICATE AWARD CEREMONY	
01:00 PM - 01:30 PM	Working Lunch	