International Conference/ Workshop

LVPEI
So that all may see
LV Prasad Eye Institute

THE FUTURE IS HERE II

Exploring New Frontiers of Ocular Research

PROGRAM SCHEDULE (Tentative)

Day 1: Thursday, 9th January 2025

Timings & Venue	Event & Session details	Speakers/Experts/Panelists
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: Kapil Bharti, 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)
01:30 PM - 01:45 PM	Kick off and Welcome: Sayan & Vivek	
01:45 PM - 02:10 PM	SPEAKER : **Virendra Sangwan** TITLE : Innovation and Collaboration	
02:10 PM - 02:35 PM	SPEAKER **:Kapil Bharti** TITLE : Indo-US Collaborations and Opportunities	
02:35 PM - 02:55 PM	SPEAKER :TBD (DBT) TITLE :Grant Opportunities in Wellcome Trust	
02:55 PM - 03:10 PM	SPEAKER **:Geeta Vemuganti** TITLE : Importance of global Collaborations in Research	
03:10 PM – 03:30 PM	SPEAKER **:Sujata Mohanty** TITLE : Regulation for Clinical Translation in India and government's perspective	
03:30 PM – 03:50 PM	SPEAKER **:Ponnari Gottipati** TITLE : Overview of Research Funding and Collaborative Initiatives at LVPEI	
	PAUSE, TAKE A BREATHER ! (03:50 PM – 04:20 PM) / Group photo session	
04:20 PM – 04:40 PM	SPEAKER **:Stefan Schrader** TITLE : Indo-European Grant and Collaboration Opportunities	
04:40 PM – 04:50 PM	SPEAKER **:Sayan Basu** TITLE : Stem Cell and Biomaterial research in LVPEI	
04:50 PM - 05:00 PM	SPEAKER **:Rani Pallavi** TITLE: Re-entry Fellowship	
05:00 PM – 05:20 PM	SPEAKER :ICMR Representative (TBD) TITLE: Funding Opportunities from ICMR	
05:20 PM- 05:50 PM	***Advancing Gene Editing Therapies to resource limited settings by Debojyoti Chakraborty and Souvik Maiti***	
	***Strings-e-Santur:* A special musical session by Debojyoti Chakraborty**	

NETWORKING/DINNER : 07:20 PM onwards ; *VENUE: TBD*
ONLY FOR DELEGATES, SPEAKERS & FACULTY MEMBERS

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

Timings & Venue	Event & Session details	Speakers/Experts/Panelists
09:00 AM – 1:00 PM	**CELL AND GENE BASED THERAPY: REPAIR, REGAIN AND REGENERATION** Session moderators: Arkasubhra Ghosh, Indumathi Mariappan Coordinators: Tejaswini Pingali & Gufran Siddiqui	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)
09:00 AM - 09:25 AM	SPEAKER :**Sonja Mertsch** TITLE : Development of Causative Treatment strategies for Lacrimal Gland Insufficiency by Tissue Engineering and Cell Therapy	
09:25 AM - 09:50 AM	SPEAKER :**Kapil Bharti** TITLE : Patient-specific iPSC-derived 3D Outer Blood Retinal Barrier For in vitro AMD Modeling and Drug Testing	
09:50 AM - 10:15 AM	SPEAKER :**Arkasubhra Ghosh** TITLE :Mutation independent approaches for ocular gene therapy	
10:15 AM - 10:40 AM	SPEAKER :**Koushik Chakrabarty** TITLE : Gene editing and cellular programming for treating ocular dystrophies	
10:40 AM - 11:05 AM	SPEAKER :**Stefan Schrader** TITLE :Corneal repair and regeneration-from keratoprosthesis to bioartificial constructs	
	TIMEOUT ! (11:05 AM – 11:30 AM) / *Group photo session*	
11:30 AM - 11:40 AM	SPEAKER :**Raja Narayanan** TITLE :iPSC-derived RPE for macular dystrophy; LVPEI Update	
11:40 AM - 11:50 PM	SPEAKER :**Trilokyanath Panigrahi** TITLE :Novel rationally designed AAV mutants enhanced transgene delivery	
11:50 AM - 12:00 PM	SPEAKER :**Vrushali Deshpande** TITLE : Characterization of serotype and process dependent, novel PTMs on AAV capsids	
12:00 PM - 12:15 PM	SPEAKER :**Rajashri Pal** TITLE : Developing the first pluripotent stem cell based therapy for d-AMD in India	
12:15 PM – 12:35 PM	SPEAKER :**Ruchi Sharma** TITLE : iPSCs and retinal therapies and way forward.	
	BON APPÉTIT (01:00 PM - 02:00 PM) ; VENUE: *ART GALLERY,LVPEI*	

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

Timings & Venue	Event & Session details	Speakers/Experts/Panelists
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) Arunashri (LVPEI) Sachin Shukla (LVPEI) Charanya Ramachandran (LVPEI)
02:00 PM - 02:15 PM	SPEAKER : **Swati Singh** TITLE : Lid Margin Microbiome	
02:15 PM - 02:30 PM	SPEAKER : **Swaminathan Sethu** TITLE : Non-invasive tear fluid based-ocular immune monitoring for preventive and personalized ophthalmic care	
02:30 PM - 02:45 PM	SPEAKER : **Marlies Gijs** TITLE : Tear fluid biomarkers: methodological practices and clinical applications	
	TIMEOUT ! (02:45 PM - 03:00 PM) / *Group photo session*	
03:00 PM - 03:15 PM	SPEAKER : **Vivek Singh** TITLE : Application of Animal Models in Ocular Research-LVPEI update	
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	
03:40 PM - 03:50 PM	SPEAKER : **Rupjyothi Talukdar** TITLE : Gut Microbiome in Pancreatic Diabetes	
03:50 PM - 04:05 PM	SPEAKER : **Jerome Ozkan** TITLE : The Ocular Microbiome in Dry Eye Disease	
04:05 PM - 04:15 PM	SPEAKER : **Sachin Shukla** TITLE : EVs: The emerging biomarkers in ocular research	
04:15 PM - 04:30 PM	SPEAKER : **Venkata Vamsi Krishna Venuganti** TITLE : Microneedle patch for ocular drug delivery: beyond eye drops and intravitrea injections	
04:30 PM - 05:15 PM	**SPRINT TALKS (E-Poster presentation, 2+1 mins)**	
	GALA DINNER : 06:20 PM onwards; *VENUE: TBD*	

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

Timings & Venue	Event & Session details	Speakers/Experts/Panelists
09:00 AM - 01:00 PM	**EXPLORING BIOMATERIALS IN OCULAR DISEASE RESEARCH** Session Moderators: Vineet Joshi and Biman Mandal Coordinators: Arun Kumar Raut Sahithi Macharla Parul Chaurasia	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)
09:00 AM - 09:25 AM	SPEAKER :**Biman Mandal** TITLE : 3D printed human organs and Tissues: The way forward in healthcare	
09:25 AM - 09:50 AM	SPEAKER :**Nirmal Jayabalan** TITLE : Empowering Ocular Drugs: A shift towards biomimetic strategies	
09:50 AM - 10:15 AM	SPEAKER :**Neetu Singh** TITLE : New Strategies for Monitoring Cancer Progression and Tumor Margins	
10:15 AM - 10:40 AM	SPEAKER :**Anil Kumar P. R** TITLE : Bioengineered tissue for regenerative medicine and organoid models	
	REFRESHMENT BREAK (10:40 AM - 11:00 AM)	
11:00 AM – 11:25 AM	SPEAKER :**Kaushik Chatterjee** TITLE : Tissue Bioengineering and 3D Bioprinting in clinical Applications	
11:25 AM – 11: 45 AM	SPEAKER :**Aravind Kumar Rengan** TITLE : Biodegradable nanohybrid systems for theranostics	
11:45 AM – 12:05 PM	SPEAKER :**Gowri Balachandran** TITLE : From Organoids to organ-on-a-chip: Transforming biology in 3D for meaningful pursuits	
12:05 PM – 12:25 PM	SPEAKER :**Falguni Pati** TITLE : 3D Bioprinting of Anisotropic and Adhesive Corneal Grafts using Decellularized Corneal Matrix-based Multi-materials System	
12:25 PM – 12:45 PM	SPEAKER :**Vineet Joshi** TITLE : Corneal Bioprinting-Clinicians Perspective	
12:45 PM - 01:00 PM	SPEAKER : **Charanya Ramachandra** TITLE : TBD	
01:00 PM – 01:15 PM	**Brainstorming Session**	
	AWARD CEREMONY / VOTE OF THANKS / GROUP PHOTO SESSION	

BON APPÉTIT (01:00 PM - 02:00 PM) ; VENUE: *ART GALLERY,LVPEI*

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Day 3: Saturday, 11 th January 2025 (*SESSION – 2*)

Timings & Venue	Event & Session details	Speakers/Experts/Panelists
02:00 PM - 06:00 PM	**HANDS-ON WORKSHOP: EXTRUSION BIOPRINTING**	
02:00 PM - 03:15 PM	**Overview of Extrusion Bioprinting Technology and its Applications** • Introduction to 3D modeling, demonstrate how to design basic models	Vivek Singh (LVPEI) Swati Singh (LVPEI) Vijeta Jaiswal (CELLINK) Parul Chaurasia
	Extrusion Bioprinter Setup and Calibration • 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** • Demonstrate extrusion of bioinks to understand flow characteristics and adjust for optimal performance	Vijetha Jaiswal (CELLINK) Swati Singh (LVPEI) Arun Kumar Raut Sahithi Macharla
	Printing Basic Geometric Structures • 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 • Demonstrate printing of complex, multi-material models	

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Day4: Sunday, 12 th January 2025

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

Timings & Venue	Event & Session details	Speakers/Experts/Panelists
09:30 AM - 01:00 PM	**HANDS-ON WORKSHOP: DIGITAL LIGHT PROCESSING-BASED BIOPRINTING**	
09:30 AM - 01:00 PM	**Overview of Digital Light Processing-based Bioprinting Technology and its Applications**	Vineet Joshi (LVPEI) 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)
	CERTIFICATE AWARD CEREMONY	
01:00 PM - 01:30 PM	**Working Lunch**	

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