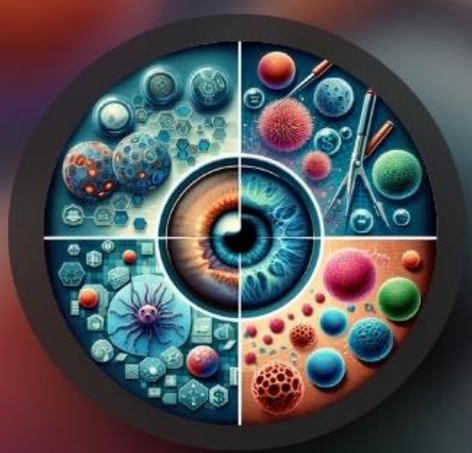
International Conference/ Workshop

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	**SPEAKERS/ PANELIST/ EXPERTS** Sayan Basu (LVPEI) Kapil Bharti (NIH) Vivek Singh (LVPEI) Stefan Schrader (University of Oldenburg) Virender Sangwan (Dr.Shroff's Charity Eye Hospital) Saurabh Srivastava (NIPER)
01:30 PM - 01:45 PM	Kick off and Welcome: **Sayan, Vivek and Anahita**	
TALKS		
01:45 PM - 02:05 PM	SPEAKER : **Kapil Bharti** TITLE : Indo-US Collaborations and Opportunities	
02:05 PM - 02:25 PM	SPEAKER : **Stefan Schrader** TITLE : Indo-European Grant and Collaboration Opportunities	
02:25 PM - 02:45 PM	SPEAKER : **Virender Sangwan** TITLE : Innovation and Collaboration	
02:45 PM - 03:05 PM	SPEAKER : **Sujata Mohanty** TITLE : Regulation for Clinical Translation in India and government's perspective	
03:05 PM - 03:25 PM	SPEAKER : **Geeta Vemuganti** TITLE : Importance of global Collaborations in Research	
03:25 PM - 03:35 PM	SPEAKER : **DBT REPRESENTATIVES** TITLE : DBT's Vision towards the Future of Indian Research	
03:35 PM - 03:50 PM	SPEAKER : **Geeta Rani** TITLE : The role of ICMR in shaping Indian Medical Research	
03:50 PM – 04:05 PM	SPEAKER : **Salaj Rana** TITLE : Start-ups funding opportunities in the Healthcare Ecosystem.	
PAUSE, TAKE A BREATHER AND SAY CHEESE ! (04:05 PM – 04:20 PM)		
04:20 PM - 04:40 PM	SPEAKER : **Debojyoti Chakraborty and Souvik Maiti** TITLE : Advancing Gene Editing Therapies to resource limited settings	
04:40 PM - 04:50 PM	SPEAKER : **Rani Pallavi** TITLE : Role of Granting Agencies in Career Development	
04:50 PM – 05:00 PM	SPEAKER : **Ponnari Gottipati** TITLE : Overview of Funding Opportunities	
05:00 PM – 05:15 PM	SPEAKER : **Saurabh Srivastava** TITLE : Advanced Differentiated Formulations: Shaping Future Ocular Deliveries	
05:15 PM – 05:30 PM	SPEAKER : **Sayan Basu** TITLE : Stem Cell and Biomaterial research in LVPEI	
05:30 PM – 06:00 PM	**SPRINT TALKS (E-Poster presentation, 3+1 mins)**	
06:00 PM – 06:45 PM	***Music in our genes : A musical session by Dr. Debojyoti Chakraborty***	

NETWORKING/DINNER : 07:30 PM onwards ; *VENUE*: ***Rendezvous, Taj Vivanta***

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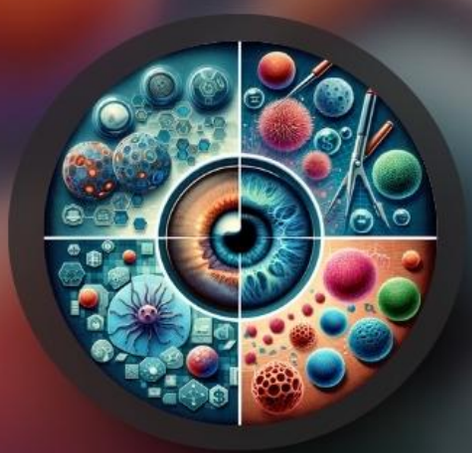

PROGRAM SCHEDULE

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

Timings & Venue	Event & Session details	
09:00 AM – 1:00 PM **Venue: *Imperia, Taj Vivanta, Hyderabad***	**CELL AND GENE BASED THERAPY: REPAIR, REGAIN AND REGENERATION** Session moderators: Arkasubhra Ghosh, Indumathi Mariappan Coordinators: Tejaswini Pingali & Rohini Sonar	**SPEAKERS/ PANELIST/ EXPERTS** 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)
TALKS:		
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 - 10:35 AM	SPEAKER : **Stefan Schrader** TITLE : Corneal repair and regeneration-from keratoprosthesis to bioartificial constructs	
10:35 AM - 11:00 AM	SPEAKER : **Ruchi Sharma** TITLE : Human Endogenous Retrovirus K (HER-K) Upregulation Triggers iPSCs-RPE and Mice Model.	
TIMEOUT ! (11:00 AM – 11:30 AM) / *Group photo session*		
11:30 AM - 11:45 AM	SPEAKER : **Koushik Chakrabarty** TITLE : Gene editing and cellular programming for treating ocular dystrophies	
11:45 AM - 12:00 PM	SPEAKER : **Avijit Minocha** TITLE : Light-based Bioprinting- the Next Frontier in Biofabrication.	
12:00 PM - 12:15 PM	SPEAKER : **Trailokyanath Panigrahi** TITLE : Novel rationally designed AAV mutants enhanced transgene delivery	
12:15 PM - 12:30 PM	SPEAKER : **Vrushali Deshpande** TITLE : Characterization of serotype and process dependent, novel PTMs on AAV capsids	
12:30 PM - 12:40 PM	SPEAKER : **Rajarshi Pal** TITLE : Developing the first pluripotent stem cell-based therapy for d-AMD in India	
12:40 PM - 12:50 PM	SPEAKER : **Raja Narayanan** TITLE : IPSC-derived RPE for age related macular degeneration ; LVPEI Update	
12:50 PM- 01:15 PM	**Brainstorming Session: *"Cells, Genes and Future".*** **Moderators:** Arkasubhra Ghosh, Indumathi Mariappan	

BON APPÉTIT (01:15 PM - 02:15 PM) ; VENUE: *Imperia, Taj Vivanta ,Hyderabad*

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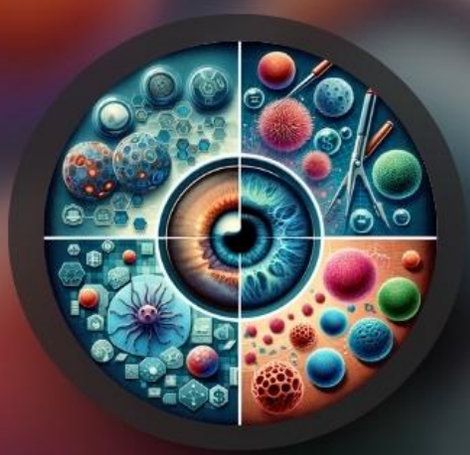

PROGRAM SCHEDULE

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

Timings & Venue	Event & Session details	
02:00 PM - 07:00 PM **Venue: *Imperia, Taj Vivanta, Hyderabad***	**MICROBIOME & BIOMARKERS: Tears/Ocular Surface** Session Moderators: Marlies Gijs & Swati Singh Coordinators: Gufran Siddiqui & Anupama Hela	**SPEAKERS/ PANELIST/ EXPERTS** Swati Singh (LVPEI) Swaminathan Sethu (Narayana Nethralaya) Marlies Gijs (Maastricht University) Vivek Singh (LVPEI) Arunasri (LVPEI) Sachin Shukla (LVPEI) Sanhita Roy (LVPEI)
TALKS:		
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 : Mesenchymal stem cells and their Secretions in Ocular Surface Diseases	
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 - 06:30 PM	**SPRINT TALKS (E-Poster presentation, 3+1 mins)**	
GALA DINNER : 07:30 PM onwards; *VENUE: Imperia, Taj Vivanta, Hyderabad*		

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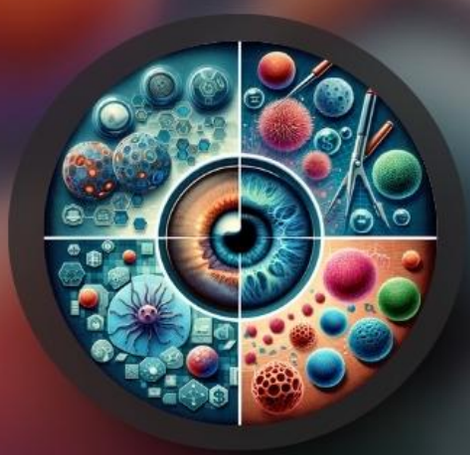

PROGRAM SCHEDULE

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

Timings & Venue	Event & Session details	
08:30 AM - 01:30 PM **Venue: Art Gallery & Patodia Auditorium, LVPEI**	**EXPLORING BIOMATERIALS IN OCULAR DISEASE RESEARCH** Session Moderators: Vineet Joshi and Biman Mandal Coordinators: Parul Chaurasia Arun Kumar Raut Sahithi Macharla	**SPEAKERS/ PANELIST/ EXPERTS** Biman Mandal (IIT Guwahati) Nirmal Jayabalan (BITS Pilani, Hyderabad) Neetu Singh (IIT Delhi) Anil Kumar P.R (Sree Chitra Tirunal Institute) Namrata Gundiah(IISC Bangalore) Aravind Kumar Rengan (IIT Hyderabad) Gauri Balachandran (IIT BHU) Falguni Pati (IIT Hyderabad) Vineet Joshi (LVPEI) Amit Asthana (NIPER) Purvasha Narang (AIIMS, Nagpur)
TALKS		
08:30 AM – 08:45 AM	Connect and Capture: Interactive and Group Photo Session	
08:45 AM - 09:05 AM	SPEAKER : **Biman Mandal** TITLE : 3D printed human organs and Tissues: The way forward in healthcare	
09:05 AM - 09:25 AM	SPEAKER **: Namrata Gundiah** TITLE **:** A unique microphysiological system for endothelial disease modelling and drug screening	
09:25 AM - 09:45 AM	SPEAKER : **Neetu Singh** TITLE : New Strategies for Monitoring Cancer Progression and Tumor Margins	
09:45 AM - 10:05 AM	SPEAKER **: Anil Kumar P. R** TITLE : Bioengineered tissues by scaffold-free and scaffold-based tissue engineering: Experience with corneal and liver tissues.	
REFRESHMENT BREAK (10:05 AM - 10:20 AM)		
10:20 AM – 10:40 AM	SPEAKER : **Nirmal Jayabalan** TITLE : Empowering Ocular Drugs: A shift towards biomimetic strategies	
10:40 AM – 11:00 AM	SPEAKER : **Aravind Kumar Rengan** TITLE : Biodegradable nanohybrid systems for theranostics	
11:00 AM – 11:15 AM	SPEAKER : **Gowri Balachandran** TITLE : From Organoids to organ-on-a-chip: Transforming biology in 3D for meaningful pursuits	
11:15 AM – 11:30 AM	SPEAKER : **Falguni Pati** TITLE : 3D Bioprinting of Anisotropic and Adhesive Corneal Grafts using Decellularized Corneal Matrix-based Multi-materials System	
11:30 AM – 11:45 PM	SPEAKER : **Viswanath Chinthapenta** TITLE : Sutures and Saturability in Ophthalmology	
11:45 PM – 12:00 PM	SPEAKER : **Charanya Ramachandra** TITLE : Mimicking native tissue architecture for engineering the endothelium	
12:00 PM – 12:15 PM	SPEAKER : **Vineet Joshi** TITLE : Corneal Bioprinting-Clinicians Perspective	
12:15 PM – 12:40 PM	**Brainstorming Session: *"Crosslinking Bonds to Breakthroughs"*** **Moderaters: *Vineet Joshi and Gowri Balachandran***	

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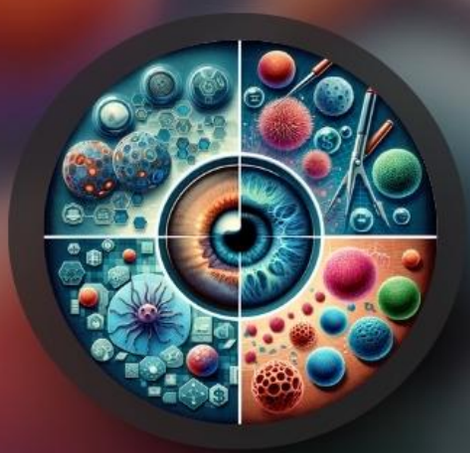

PROGRAM SCHEDULE

Day 3: Saturday, 11th January 2025(Session-2)

HANDS-ON WORKSHOP IN 3-D BIOPRINTING

(For only 20 registered students)

Timings & Venue	Event & Session details	
02:00 PM - 06:00 PM ***Venue*: 3D LAB, 5TH FLOOR, LVPEI**	**HANDS-ON WORKSHOP: EXTRUSION BIOPRINTING**	
02:00 PM- 2:20 PM ***Venue: Godrej Hall, 6TH Floor***	SPEAKER : **Amit Asthana** TITLE : **Bioprinting in 3D: Shaping the Future of Regenerative Medicine**	
02:20 PM - 03:15 PM	**Overview of Extrusion Bioprinting Technology and its Applications** - Introduction to 3D modeling, demonstrate how to design basic models	Prof.Anil Kumar PR Amit Asthana (NIPER) Vivek Singh (LVPEI) Swati Singh (LVPEI) Vijeta Jaiswal (CELLINK)
	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	Prof.Anil Kumar PR 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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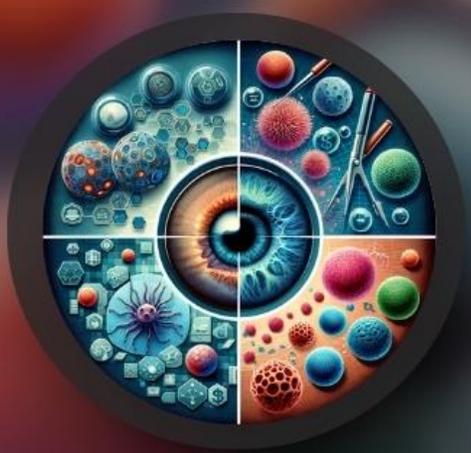

PROGRAM SCHEDULE

Day 4: Sunday, 12th January 2025

HANDS-ON WORKSHOP IN 3-D BIOPRINTING

(For only 20 registered students)

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 ***Venue*: 3D LAB, 5TH FLOOR, LVPEI**	**HANDS-ON WORKSHOP: DIGITAL LIGHT PROCESSING-BASED BIOPRINTING**	
Speakers/Experts/Panelists		
09:30 AM - 01:30 PM	**Overview of Digital Light Processing-based Bioprinting Technology and its Applications**	Vijeta Jaiswal (CELLINK) Vineet Joshi (LVPEI) Parul Chaurasia Arun Kumar Raut 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	Jilu Jaffet/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	
01:30 PM Onwards	**Working Lunch and Departure**	

L V Prasad Eye Institute

Brien Holden Eye Research Centre