

Progress in Regenerative & Investigational Medicine in Eye

Workshop Venue

GROW Research Laboratory

Narayana Nethralaya, Bommasandra, Bengaluru

Date

7th-9th (Fri-Sun) November 2025

Conference Venue

The Oterra Hotel

Electronic City Ph-1, Bengaluru











TRIBUTE TO OUR GUIDING LIGHT



Dr. K Bhujang ShettyFounder Chairman

The force behind
Translational research
in
Narayana Nethralaya
for a better tomorrow

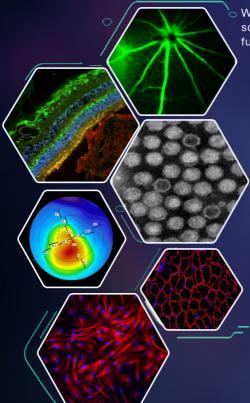
PRIME SUMMIT 2025

PROGRESS IN REGENERATIVE & INVESTIGATIONAL MEDICINE IN EYE

Date: November 7th - 9th, 2025

Conference Venue: The Oterra Hotel, Electronic city Phase-1, Bengaluru Workshop Venue: GROW Research Laboratory, Narayana Nethralaya, Bommasandra, Bengaluru

Workshops | Talks | Panel discussions | Oral / Poster competition | Travel awards



Where discovery meets delivery: Connect with scientists, clinicians, and innovators shaping the future of eye research and translational medicine

THEMES

- Gene and Cell Therapy advances
- ➤ Immunology in Ocular Health and Disease
- ► Novel Molecular Approaches in Vision Restoration
- Al in Ophthalmology

WORKSHOPS

- ► Ocular Gene Therapy vector designing, production and scale-up
- Ocular immunology Biomarkers
- > AI in ophthalmology: from statistical tools to practical applications
- Bioprinting, Biomaterials, and Cell therapy

PANEL DISCUSSIONS

- ➤ Paving the Future of Regenerative Medicine: Preparing for Gene and Cell Therapy in India
- Biomarkers, Imaging and AI in clinical practice: tool development

Organisers

Dr. Arkasubhra Ghosh | Dr. Rohit Shetty | Dr. Naren Shetty **GROW Research Laboratory** Narayana Netralaya Foundation, Bengaluru.

Co-Organisers

Dr. Sayan Basu | Dr. Vivek Singh

L. V. Prasad Eye Institute, Hyderabad.







CHIEF PATRONS



Dr Rohit Shetty Director | Narayana Nethralaya Bengaluru



Dr Naren Shetty Director | Narayana Nethralaya Bengaluru

INTERNATIONAL FACULTY



Dr Debasish Sinha | Professor of Ophthalmology, The Johns Hopkins University School of Medicine | USA



Dr Florian Sennlaub | Research Director, Institut de la Vision & Inserm | France



Dr Rajiv Mohan | Professor of Ophthalmology, University of Missouri School of Medicine | USA



Dr Matthew Campbell | Professor of Neurovascular Genetics, Trinity College Dublin | Ireland



Dr Tim Corson | Professor of Ophthalmology and Vision Sciences, University of Toronto | Canada



Dr Ronjon Nag | Adjunct Professor, Stanford School of Medicine | USA



Dr Ashwath Jayagopal | Chief Scientific and Development Officer, Opus Genetics | USA



Dr Shizuka Koh | Assoc. Professor, The University of Osaka Graduate School of Medicine | Japan



Dr Barathi Veluchamy | Assistant Director, Singapore Eye Research Institute | Singapore



Dr Xavier Guillonneau | Principal Investigator, Institut de la Vision & Inserm | France



Dr Padmanabhan P Pattabiraman | Assoc. Professor, Indiana University School of Medicine | USA



Dr Pawan Singh | Asst. Professor, University of Missouri | USA



Dr Avril Reddy | Research Fellow, Trinity College Dublin | Ireland

NATIONAL FACULTY



Dr Geeta Kashyap Vemuganti | Distinguished Pathologist and Scientist, L V Prasad Eye Institute | Hyderabad



Dr Souvik Maiti | Director & Chief Scientist, Institute of Genomics and Integrative Biology | New Delhi



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Dr Sayan Basu | Consultant, Director BHERC & CORE L V Prasad Eye Institute | Hyderabad



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Dr Shiv Balasubramanian | CEO and Co-founder ImmunitasBio Pvt Ltd | Bengaluru



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Dr Indumathi Mariappan | Assoc. Professor, BRIC-inStem | Bengaluru



Dr Janakiraman Narayanan | Principal Scientist, Vision Research Foundation | Chennai



Dr Vivek Singh | Scientist, L V Prasad Eye Institute, Hyderabad | India



Dr Arunasri K | Research Scientist, L V Prasad Eye Institute | Hyderabad



Dr Daipayan Banerjee | Scientist, Aravind Medical Research Foundation | Madurai



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Dr Sushma Tejwani | Consultant, Narayana Nethralaya | Bengaluru



Dr Padmamalini Mahendradas | Consultant, Narayana Nethralaya | Bengaluru



Dr Poornachandra B | Consultant, Narayana Nethralaya | Bengaluru



Dr Thirumalesh M B | Consultant, Narayana Nethralaya | Bengaluru



Dr Deepika C Parameswarappa | Consultant, Narayana Nethralaya | Bengaluru



Dr Mousumi Banerjee | Consultant, Narayana Nethralaya | Bengaluru



Dr Anil Tiwari | Scientist – Dr Shroff's Charity Eye Hospital | New Delhi



Dr Rani Pallavi | Ramalingaswami Fellow, L V Prasad Eye Institute | Hyderabad



Dr Madhu Nath | Ramalingaswami Fellow, Dr. R P Centre for Ophthalmic Sciences, AlIMS | New Delhi



Dr Ajay Kumar | Asst. Professor. National Institute of Pharmaceutical Education & Research | Mohali



Dr Koushik Chakrabarty | Principal Investigator, Narayana Netralaya Foundation | Bengaluru



Dr Nallathambi Jeyabalan | Principal Investigator, Narayana Netralaya Foundation | Bengaluru



Dr Mehak Sapra | Scientist, Dr Shroff's Charity Eye Hospital | New Delhi



Dr Vrushali Deshpande | Principal Investigator, Narayana Netralaya Foundation | Bengaluru



Dr Vaibhav Bhatia | CEO & Co-founder LAMARK Biotech Pvt. Ltd. | Ahmedabad



Dr Soham Basak | Consultant, Disha Eye Hospitals | Kolkata



Dr Arkasubhra Ghosh Director, GROW Research Lab Narayana Netralaya Foundation | Bengaluru



Workshop schedule: 7th November 2025: GROW Research Lab, Narayana Nethralaya, Bommasandra, Bengaluru



Venue: The Oterra Hotel Electronic city Phase-1, Bengaluru, India

8

8.30 pm Onwards

Dinner

Day 1: 8th November 2025: The Oterra Hotel, Electronic city Ph-1, Bengaluru

<u>TIME</u>	<u>TITLE</u>	FACULTY
8.30 am - 8.50 am	Registration	
8.50 am - 9.00 am	Inauguration	
9.00 am - 9.15 am	Overview of the meeting	Dr Arkasubhra Ghosh
	Session 1 - Moderator: Dr G Kumaramanickavel	
9.15 am -10.15 am	Dr K Bhujang Shetty Oration Lecture Translating biology to therapy: comparing treatments for corneal scarring	Prof Rajiv Mohan
10.15 am - 10:35 am	Indigenous CRISPR-Cas9 Tools: Advancing Gene Therapy Through Precision and Biophysical Insight	Dr Souvik Maiti
10.35 am - 10.45 am	Corneal regeneration: Stem Cells, Hydrogels, 3D BioPrinting	Dr Vivek Singh
10.45 am - 10.55 am	Predicting retinopathy of prematurity through non-invasive tear biomarkers	Dr Anand Vinekar
10.55 am - 11.15 am	Tea Break	
	Session 2 - Moderators: Dr P Sundaresan Dr Anuprita Ghosh	
11.15 am - 11.35 am	Chemical biology approaches to new therapies for ocular neovascularization	Dr Tim Corson
11.35 am - 11.50 am	Building the Future of Biopharmaceuticals: From Formulation Innovation to Proprietary Medicine Development	Dr Vaibhav Bhatia
11.50 am - 12.05 pm	Leveraging Transcriptomic Data to Identify Epigenetic Targets in Retinoblastoma	Dr Rani Pallavi
12.05 pm - 12.20 pm	Mechanobiology at the Crossroads: ECM Stiffness in Retinoblastoma Therapy and Keratoconus Progression	Dr Janakiraman Narayanan
12.20 pm - 12.30 pm	Locking in BCMA: SHEDLOCK CAR T Prevents γ-Secretase – Mediated Shedding of BCMA and Enhance Efficacy Against Multiple Myeloma	Ms Sheetal Sharma
12.30 pm - 1.00 pm	Poster session + Grading	
1.00 pm - 1.45 pm	Lunch \ Poster viewing	
	Session 3 - Moderators: Dr Anil Tiwari Dr Vrushali Deshpande	
1.45 pm - 2.05 pm	From Optical Bench to Clinic: Understanding Visual Disturbance in Dry Eye	Dr Shizuka Koh
2.05 pm - 2.20 pm	Exploring the Regeneration of Lacrimal Gland	Dr Geeta Kashyap Vemuganti
2.20 pm - 2.35 pm	Pre-clinical studies of Biomimetic hydrogel for treating Corneal Diseases	Dr Kiran Kumar

Day 1: 8th November 2025: The Oterra Hotel, Electronic city Ph-1, Bengaluru

TIME	<u>TITLE</u>	FACULTY
2.35 pm - 2.45 pm	Off-label eye drops: Stabilizing the unstable drugs using a formulation approach	Dr Nirmal Jayabalan
2.45 pm - 3.00 pm	Dysbiosis to Recovery: Microbiome changes in Stevens–Johnson Syndrome	Dr Arunasri K
3.00 pm - 3.15 pm	Impact of Extracellular Matrix and Inflammation on the ocular surface in Stevens Johnson Syndrome	Dr Mehak Sapra
3.15 pm - 3.25 pm	Novel therapy for myopia management	Dr Sumitha Muthu
3.25 pm - 3.35 pm	Flavanone Glycoside as Investigative Topical Therapy for Treating Ocular Pain	Mr Manthan S Hiremath
3.35 pm - 4.00 pm	Tea Break	
	Session 4 - Moderators: Dr Ronjon Nag Dr Abhijit Sinha Roy	
4.00 pm - 4.20 pm	Al and Aging	Dr Ronjon Nag
4.20 pm - 4.35 pm	AI in healthcare: Stories from real applications in Haematology	Dr Tathagato Rai Dastidar
4.35 pm - 4.50 pm	Making tech work for you	Dr Pravin Krishna Vaddavalli
4.50 pm - 5.05 pm	Use of Al for grading of cornea guttata in specular microscopy: Large data analysis	Dr Soham Basak
5.05 pm - 5.15 pm	Integrating corneal birefringence and tomography with Al for enhanced detection of sub-clinical keratoconus	Dr Abhijit Sinha Roy
5.15 pm - 5.25 pm	Prediction of disease trajectory using biomarker based Al classification of diabetic macular edema	Mr Raghav Narasimhan
5.25 pm - 5.35 pm	Clinical applications of tear fluid biomarkers	Dr Rohit Shetty
5.35 pm - 5.45 pm	Automated image segmentation of the corneal endothelium in patients with Fuch's dystrophy	Dr Shilpashree P S
5.45 pm - 5.55 pm	CurieCrisp Platform - Towards Personalized Therapies: CRISPR-Based Correction of RDH12 Mutation in Leber Congenital Amaurosis	Ms Nancy Deep
6.00 pm - 6.25 pm	Emerging therapies and AI in health care	Panel discussion
	Dr Tim Corson, Dr Vivek Singh, Dr Nirmal Jayabalan, Dr Ronjon Nag, Dr Tathagato Rai Dastidar, Dr Abhijit Sinha Roy, Dr Thirumalesh M B, Dr Sudhir Ranganath, Dr Sundeep Aurora, Dr Padmamalini Mahendradas	
6.30 pm - 8.00 pm	Cultural events	
8.00 pm onwards	Dinner	

Day 2: 9th November 2025: The Oterra Hotel, Electronic city Ph-1, Bengaluru

<u>TIME</u>	<u>TITLE</u>	FACULTY		
Session 5 - Moderators: Dr Arkasubhra Ghosh Dr Thirumalesh M B				
9.00 am - 9.10 am	Ocular Manifestations and Genetic Spectrum of Xeroderma Pigmentosum: Insights from an Indian Cohort in a Global Context	Dr Anshuman Verma		
9.10 am - 9.20 am	Inflammatory signatures in treatment naïve retinal vein occlusion: From cytokine surge to chronic inflammation	Dr Mousumi Banerjee		
9.20 am - 9.40 am	Therapeutic strategies for regulating the blood-brain and blood-retina barriers	Dr Matthew Campbell		
9.40 am - 9.55 am	Vascular remodelling in the diabetic Retinopathy: molecular mechanism and potential treatments	Dr Xavier Guillonneau		
9.55 am - 10.10 am	Evs on the Road to Biomarker Discovery in Diabetic Retinopathy: Retinal RBP3 in Plasma Small Extracellular Vesicles	Dr Daipayan Banerjee		
10.10 am - 10.30 am	How Risk Factors Ignite Chronic Inflammation in AMD	Dr Florian Sennlaub		
10.30 am - 10.40 am	Microfluidic triple-co-culture model of age-related macular degeneration for advancing retinal drug development	Ms Pradnya Salve		
10:40 am - 11.00 am	Tea break			
	Session 6 - Moderators: Dr Indumathi M Dr Poornachandra B			
11.00 am - 11.20 am	Clinical Trials in LCA and BEST1	Dr Ashwath Jayagopal		
11.20 am - 11.35 am	Fuchs' Dystrophy among Bengali Population, Eastern India	Dr Samar Basak		
11.35 am - 11.45 am	Targeting the Right Retina: Clinical Prerequisites in IRD Therapy	Dr Deepika C Parameswarappa		
11.45 am - 12 noon	Bridging Science and Clinics: Preclinical Models for Next-Gen Eye Therapies	Dr Barathi Veluchamy		
12 noon - 12.10 pm	Cryba1 Gene Therapy for Age-Related Macular Degeneration: I From Rational Design to Preclinical Validation	Or Priyalakshmi Panikker		
12.10 pm - 12.20 pm	Gene agonistic AAV-based approaches for preserving retinal integrity in retinal degenerative conditions	Mr Subhradeep Sarkar		
12.20 pm - 12.30 pm	Host meets vector: Unraveling Immune Dynamics in AAV Gene Therapy	Ms Riya Patra		
12.30 pm - 12.40 pm	Regenerative Medicine-based Treatment Approaches for Vision Loss	Dr Ajay Kumar		
12.40 pm - 1.00 pm	Poster session + Grading			
01.00 pm - 01.45 pm	Lunch / Poster viewing			

Day 2: 9th November 2025: The Oterra Hotel, Electronic city Ph-1, Bengaluru

TIME	<u>TITLE</u>	<u>FACULTY</u>		
S	ession 7 - Moderators: Dr Matthew Campbell Dr Nallathambi Jeya	balan		
1.45 pm - 2.00 pm	Macrophage Migration Inhibitory Factor in Glaucoma Pathogenesis and Neuroprotection	Dr Pawan Singh		
2.00 pm - 2.15 pm	Small extracellular vesicles for human trabecular meshwork regeneration in primary open-angle glaucoma	Dr Gowri Priya Chidambaranathan		
2.15 pm - 2.25 pm	Neurodegeneration - Neuroinflammation axis in glaucoma	Dr Sushma Tejwani		
2.25 pm - 2.40 pm	From Discovery to Impact: Novel Strategies in Shifting the Paradigm for Lowering Intraocular Pressure.	Dr Padmanabhan P Pattabiraman		
2.40 pm - 2.50 pm	Targeting the Transcriptional Control of Lipid Metabolism to Lower Intraocular Pressure	Dr Srimathi Raghavan		
2.50 pm - 3.05 pm	Molecular targets in glaucoma for newer therapeutic approach	Dr Madhu Nath		
3.05 pm - 3.15 pm	Host-response transcript profiling in the patient cornea: early lead for predicting treatment outcome in fungal keratitis	Dr Swagata Ghosh		
3.15 pm - 3.25 pm	Human lacrimal gland derived mesenchymal stem cells and their secretome for potential therapeutic applications in dry eye disease	Ms Jilu Jaffet		
3.25 pm - 3.50 pm	Tea break			
Session 8 - Moderators: Dr Florian Sennlaub Dr.Koushik Chakrabarty				
3.50 pm - 4.10 pm	Inflammation and the STING Pathway in AMD	Dr Debasish Sinha		
4.10 pm - 4.25 pm	The Role of Condensates in Buffering Inflammation by Immunogenic RNA	Dr Shovamayee Maharana		
4.25 pm - 4.40 pm	Enhanced retinal pigment epithelial cells as a delivery vehicle for retinal disease	Dr Avril Reddy		
4.40 pm - 4.50 pm	AKT-ing for Survival; Interplay of TERT, AKT AND ERphagy IN RPE, Aging and AMD	Dr Vishnu Suresh Babu		
4.50 pm - 5.00 pm	Allogeneic induced pluripotent stem cell-derived photoreceptors for the treatment of retinal degenerative blindness	Dr Rajarshi Pal		
5.00 pm - 5.30 pm	Gene and Cell therapy Dr Rajiv Mohan, Dr Matthew Campbell, Dr Ashwath Jayagopal, Dr P Sunderasan, Dr Shiv Balasubramanian, Dr Vivek Singh, Dr Poornachandra B, Dr Bhupal Reddy	Panel discussion		
5.30 pm - 6.00 pm	Prize announcments and Closing remarks			

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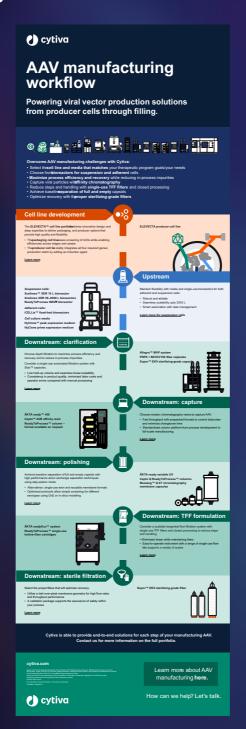
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Notes



GROW Research Laboratory

Narayana Netralaya Foundation 3rd floor, Narayana Nethralaya, Bommasandra, Bengaluru - 560099 Website: www.nnf.org.in

