

ARAVIND EYE CARE SYSTEM

Vision: Eliminate needless blindness

# ACTIVITY REPORT

April 2024 to March 2025



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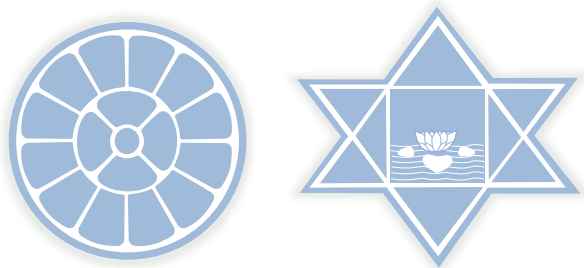
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## activity report

April 2024 to March 2025



*One soul's ambition lifted up the race;  
A power worked, but none knew whence it came.  
The universal strengths were linked with his;  
Filling earth's smallness with their boundless breadths  
He drew the energies that transmute an age.  
- Sri Aurobindo, 'Savitri'*

# ARAVIND EYE CARE SYSTEM

Vision: Eliminate needless blindness..



## EYE CARE SERVICES

.. by providing compassionate and quality eye care affordable to all



## EDUCATION AND TRAINING

.. by developing human resources through teaching and training



## RESEARCH

.. by providing evidence through research and evolving methods to translate existing evidence and knowledge into effective action



## CONSULTANCY & CAPACITY BUILDING

.. by enhancing eye care through capacity building advocacy, research and publications



## OPHTHALMIC SUPPLIES & EQUIPMENT

.. by making quality ophthalmic products affordable and accessible to the vision impaired worldwide



## INFORMATION TECHNOLOGY

.. by empowering healthcare institutions through providing accessible, innovative, and affordable digital solutions



## EYE CARE SERVICES

### ARAVIND EYE HOSPITALS

Tertiary Eye Care Centres - 7 (Speciality Care, Research & Training)

Madurai 1976 | Tirunelveli 1988 | Coimbatore 1997 | Pondicherry 2003 | Salem 2011 | Chennai 2017 | Tirupati 2019

Secondary Eye Care Centres - 7 (Cataract Services & Speciality Diagnosis)

Theni 1985 | Tirupur 2010 | Dindigul 2010 | Tuticorin 2012 | Udumalpet 2012 | Coimbatore City Centre 2014 | Kovilpatti 2019

### OUTREACH PROGRAMMES

#### Free Eye Camps

Community Eye Clinics - 8 (Out-patient eye care centres for comprehensive eye examination and treatment of minor ailments)

Melur 2004 | Tirumangalam 2005 | Cumbum 2008 | Madurai City Centre 2009 | Sankarankovil 2010 | Pondicherry City Centre 2011 | Chennai Mylapore City Centre 2023 | Puttur 2024

Vision Centres - 117 (Primary eye care centres for comprehensive eye examination)

### ARAVIND INTEGRATED EYE BANK SERVICES

Madurai 1998 | Tirunelveli 2004 | Coimbatore 2005 | Pondicherry 2005 | Chennai 2021

## EDUCATION AND TRAINING

ARAVIND EYE HOSPITALS & POSTGRADUATE INSTITUTE OF OPHTHALMOLOGY

LIONS ARAVIND INSTITUTE OF COMMUNITY OPHTHALMOLOGY (LAICO)

## RESEARCH

ARAVIND MEDICAL RESEARCH FOUNDATION (AMRF)

DR. G. VENKATASWAMY EYE RESEARCH INSTITUTE

Basic and translational research, clinical research, operations research & product development in eye care

## CONSULTANCY AND CAPACITY BUILDING

LIONS ARAVIND INSTITUTE OF COMMUNITY OPHTHALMOLOGY (LAICO)

Sharing best practices of Aravind and advocacy in eye care

## OPHTHALMIC SUPPLIES AND EQUIPMENT

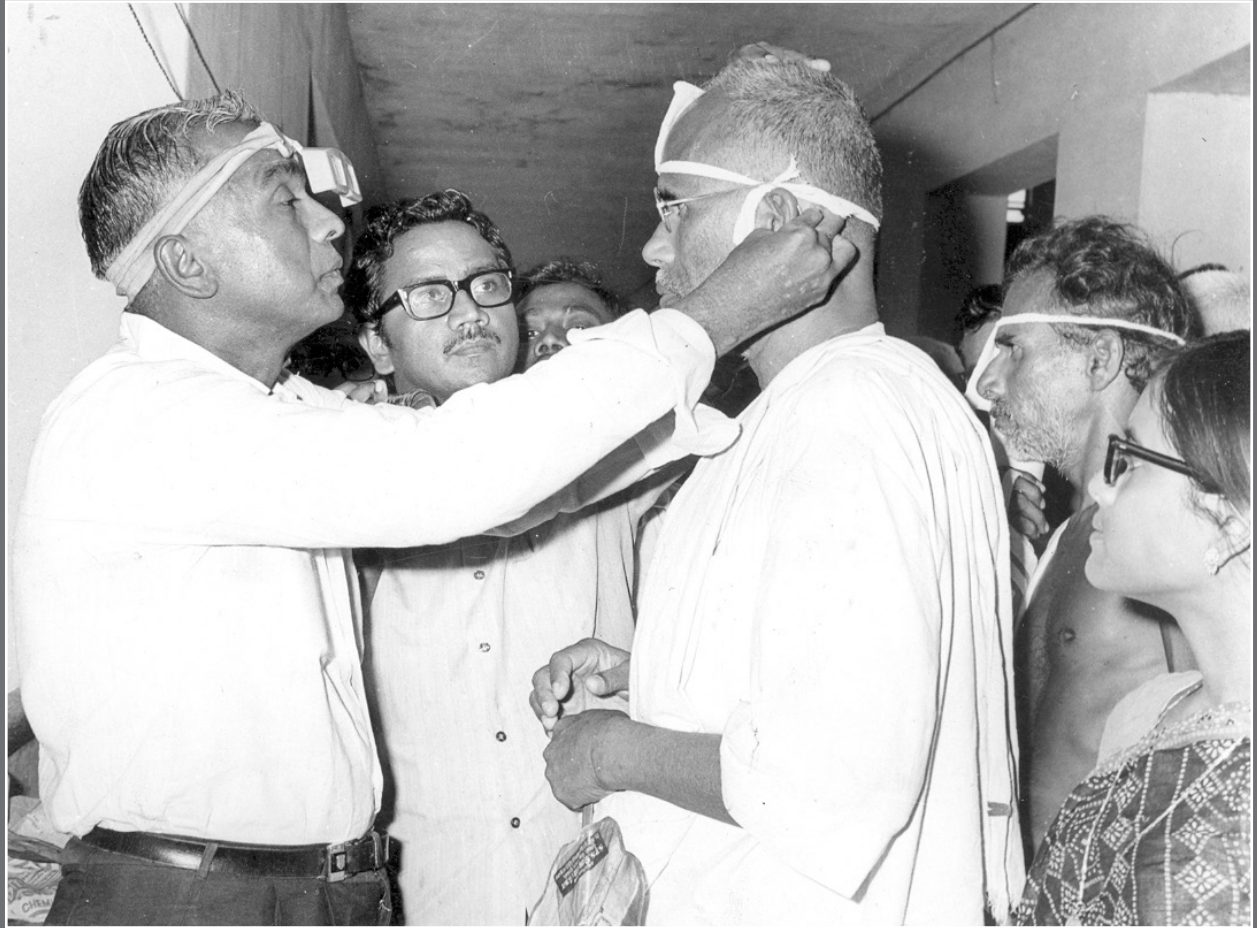
### AUROLAB

Intraocular lens, pharmaceuticals, suture needles, equipment, surgical blades and special products

## INFORMATION TECHNOLOGY

### AUROiTECH

EMR/EHR design, development and support, digital transformation and operations in healthcare, hospital IT support and management, DevSecops solutions, data management, research, consulting and training.



*Perfection is possible only by a happy elevation of our nature beyond its present comparatively narrow potential, becoming a self-fulfilling force of action and joy of the body - a conversion of its actions, its functioning, its capacities as an instrument - moving it beyond the limitations which clog and hamper it, even its great present human attainments.*

*- Dr. G. Venkataswamy*

# Highlights 2024-2025

As in previous years, Aravind achieved several milestones this year, reaffirming its dedication to serving society. A notable moment was the conferring of the Padma Shri on Dr. G. Natchiar, Director-Emeritus, Aravind Eye Care System (AECS). This national honour recognises her distinguished contributions to medicine and society, bringing pride not only to her but also to the institution.

In a press interview, she remarked, “Do good for the community and ensure the welfare of your fellow beings.” It is notable that three founding doctors from the same family have now received the Padma Shri, reflecting the collective commitment of the founders to eliminating needless blindness. This recognition comes not only from the government but also from the public, who have celebrated this honour.

To address the need of a large building to accommodate the growing patient volume at Aravind-Coimbatore, a new state-of-the-art eye care facility spanning 440 thousand square feet, was opened on 29<sup>th</sup> September 2024. It was inaugurated by the chief guest, Dr. B.K. Krishnaraj Vanavarayar, Chairman, Bharatiya Vidya Bhavan, Coimbatore, in the presence of Dr. Ganapathy P. Rajkumar, Member of Parliament, Coimbatore.

Construction of a large facility in nearby area from its present location is also underway at Aravind-Salem, with completion expected in 2026. Once operational, it will provide comprehensive eye care with modern facilities for the region.



*Dr. G. Natchiar receiving the Padma Shri Award from Honourable President of India, Smt. Droupadi Murmu*

*Inauguration of the new facility at Aravind-Coimbatore*







Aravind's new Tertiary Eye Care Centre at Thanjavur

The extension of services to Thanjavur, a historic town, marks another key milestone, and is set to open in April 2025.

As Aravind nears its fiftieth year of service, preparations are underway for a yearlong jubilee celebration to honour the institution's rich legacy rooted in the vision of Dr. V.

### Establishment of "Centre for Advanced Research in Glaucoma (CARG)"

ICMR (Intermediate-grants) project entitled "Adult stem cell derived exosomes: a cell-free therapy for glaucoma," and ICMR (CAR-Centre

for Advanced Research grant) project entitled "Early detection of open angle glaucoma in diabetes patients with increasing age and family history of glaucoma" worth 20 crores, have been awarded to explore the pathogenesis of glaucoma and to screen families for various genetic alterations that leads to glaucoma.

### WHO Consultation on eCSC and eREC

LAICO, a World Health Organization Collaborating Centre (WHO-CC), conducted a two-day consultation on 29-30 November 2024, in Aravind-Madurai, to achieve the global targets

### *In loving memory of Dr. V.R. Muthukkaruppan*

*Aravind mourns the loss of Dr. V.R. Muthukkaruppan, Founding Director of Research at the Aravind Medical Research Foundation (AMRF), on 16<sup>th</sup> June 2024, at the age of 90. As the Founding Director, he established the research laboratory and made remarkable contributions to the understanding of diabetic retinopathy, corneal epithelial stem cells, and the immunology of uveitis. Later, as Advisor – Research, he was instrumental in developing innovative programmes focusing on the application of adult tissue-resident stem cells in regenerative medicine. His dedication to genetic research led to the establishment of the Cancer Genetic Testing Centre at Aravind Eye Hospital, Madurai the only centre of its kind in India. His loss leaves behind a legacy of scientific excellence in eye research that the entire Aravind community celebrates and is committed to carrying forward.*





*Dr. G. Venkataswamy Memorial Award to Dr. Martin Henry*



for effective Cataract Surgical Coverage (eCSC) and effective Refractive Error Coverage (eREC) by 2030. Twenty-nine experts representing different WHO-CCs across India, Bangladesh, and Nepal attended the consultation. Since the interventions to improve eCSC and eREC are mainly led by providers, to facilitate monitoring at the provider level, hospital level measures like the effective Cataract Intervention Rate (eCIR)

*Participants of the WHO Consultation*



and effective Refractive error Intervention Rate (eRIR) were recommended. This consultation was an important step toward reaching the 2030 global targets and emphasises the need for provider led efforts, system-wide improvements, and ongoing collaboration among stakeholders.

### **Aurolab 2.0 - International Brand Launch**

The international brand launch of Aurolab 2.0 held at a webinar hosted by the International Business Group on 14<sup>th</sup> May 2024, providing in-depth insights into the attributes and focus areas of Aurolab 2.0. The new logo reflects the company's unwavering commitment to innovation and quality, assuring customers that it will continue to meet their evolving needs.

### **Dr. G. Venkataswamy Memorial Oration and Award Ceremony**

Aravind conferred the Dr. G. Venkataswamy Memorial Award 2024 upon Dr. Martin Henry Spencer an ophthalmologist Seva Canada, in appreciation of his significant contributions to revolutionising cataract surgical practices worldwide and improving the lives of the visually impaired in developing countries, enabling them to experience the world without constraints.





*Inaugurating of ARCORE Training centre at Aravind-Chennai*

At the grand ceremony, held at the LAICO on 1<sup>st</sup> October 2024, Dr. Spencer delivered the Dr. G. Venkataswamy Memorial Oration on the title, “Riding the wave of Dr. Venkataswamy’s Vision: A personal journey with Seva and Aravind.”

## ARCORE

In an effort to share its significant expertise in eye care, Aravind established ARCORE, a cutting-edge training facility at Aravind-Chennai, which was inaugurated by Rtn. Ravi Raman, District Governor 23-24, RI District 3232 on 21<sup>st</sup> June 2024. ARCORE is designed to facilitate hybrid skill enhancement by offering a range of courses across various skill sets, combining virtual and hands-on sessions with observation opportunities. The facility will broaden the horizons of learning and increase global connectivity through classroom and recorded lectures, live-streamed sessions, live wet lab demonstrations, and a comprehensive reference library. Global leaders such as Alcon, Zeiss, Aurolab, and Essilor are industry partners for ARCORE.



## *A Life of Curiosity and Commitment - Remembering Mike Myers*

*Aravind lost a dear friend in Mike Myers, a dedicated volunteer who supported the institution for over four decades. He was instrumental in introducing computer capabilities to Aravind in the early 1980s and later played a key role in developing the communications department. Photography was his greatest passion, and here his contribution to Aravind was immense. He ensured that the photographers were equipped with the best tools and skills, raising the standard of the institution’s visual storytelling. Despite the barriers of language, he worked closely with the media and communications staff, inspiring them through his spirit of curiosity and his belief in continuous learning.*

*Deeply moved by Dr. V’s vision, Mike chose to spend increasing amounts of time at Aravind. “Everything else I’ve done will be forgotten. Things I’ve done here get built upon. It’s great to be a small part of what’s happening at Aravind,” he once said.*

*Mike passed away on 4<sup>th</sup> October 2024 after a brief illness at Aravind, which he considered his second home, ten thousand kilometres away from his native land. His loss has left an indelible mark on all who knew him, along with unforgettable memories captured in his photographs.*

*Mike was one of the most generous souls, giving freely of his time, knowledge, and encouragement. Even in his passing he left a generous gift to Aravind which will continue to further Aravind’s work in photography, videography, communications, and digital resources, fields that he nurtured with great passion and vision. Mike’s legacy will live on.*





## Patient Care

*What's happening at Aravind is that its go-ahead practices, which have evolved from its founding to the present day, continue to drive innovation and the development of practical solutions, catering to the eye care needs of patients. Bearing the torch of Dr. V's vision of eliminating needless blindness, patient care at the centre of focus here has led to the continuous exploration of new approaches to work, the expansion of hospital facilities, the opening of new centres in different locations, and reaching out to meet patients' needs in all aspects, year after year.*

## EYE HOSPITALS

### Infrastructure development

At Aravind Eye Hospital - Coimbatore, the inauguration of a new, larger hospital building on 29<sup>th</sup> September 2024 marked a significant step forward in accommodating the growing number of patients. Equipped with advanced features and modern infrastructure, the facility enhances the delivery of eye care, making it more accessible to all.

Aravind-Tirupati, opened its first Community Eye Clinic in Puttur, Tirupati District, Andhra Pradesh on 28<sup>th</sup> May 2024. This new clinic was set to benefit Puttur and the surrounding villages. As Aravind-Salem prepares to move to a new and bigger facility in 2026, the team participated in a half-day Excellent Goal Setting Workshop on 3<sup>rd</sup> August 2024, planning strategies and allocating resources to expand services in anticipation of the move. Aravind-Tirunelveli utilises



*Thulasiraj Ravilla inaugurating the Puttur Community Eye Clinic*

its old building, renovating them for the service of its patients on specialty care inaugurated on 8<sup>th</sup> February 2025. Aravind-Madurai, the very first hospital of the

*Inauguration of the new facility at Aravind - Coimbatore*





network, is planning to relocate to a nearby site in alignment with government requirements for hospital facilities, ensuring the capacity to serve the increasing patient volume while continuing to deliver high-quality eye care.

### Initiatives to improve eye care service delivery

At Aravind-Tirunelveli, a Remidio fundus camera was installed at the free outpatient section on 5<sup>th</sup> April 2024. Further, a Legion Phaco machine was set up at the wet lab on 12<sup>th</sup> February 2025. Aravind-Salem has opened a vision therapy and low vision clinic for patients with non-strabismic binocular vision anomalies, on 30<sup>th</sup> November 2024. This centre provides a comprehensive vision assessment for patients with irreversible visual impairment, trials of low vision devices, and vision therapy exercises for paediatric patients with amblyopia. On 1<sup>st</sup> January 2025, Aravind-Chennai conducted a Goal-Setting Workshop, reviewing 2024 progress and defining 2025 departmental strategies, aligning teams toward shared institutional growth and excellence.

To address technical challenges and drive innovation for the benefit of patients, the Aravind Centre for Eye care Innovation (ACEi) continues to adopt ingenious approaches. Renovation of a dedicated space at LAICO for ACEi's Eyedeas Lab is nearing completion, with a high-precision SLA 3D printer from Aurolab installed in a safe, fume-free environment. ACEi, in collaboration with VIT Vellore, has jointly filed a patent for the EC LINK, an automated riboflavin dispensing system. Additionally, two design patents, for a Conjunctival Retractor and an Anterior Chamber Depth Analyser, are in progress in partnership with VIT Chennai.

*Dr. P. Vijayalakshmi inaugurating the Low vision clinic at Aravind-Salem*



## Projects to enhance eye care service delivery

### Spectacles for children

Funded by the Aravind Eye Foundation (AEF), the project was implemented at Aravind Eye Hospitals in Madurai, Theni, Tirunelveli, Tuticorin, Kovilpatti, Coimbatore, Pondicherry, Salem, and Tirupati. Aiming to enhance the visual health and educational performance of school children, the project ensured the timely provision of quality spectacles through school-based eye screening initiatives. Between April 2024 and March 2025, the initiative covered 392 schools across six tertiary and four secondary hospitals. A total of 304,032 schoolchildren were screened, with 13,281 diagnosed with refractive errors and provided with spectacles.

### Vision Aid- Low Vision project

With support from Vision-Aid, Boston, USA, significant progress was made in strengthening infrastructure and enhancing the delivery of vision rehabilitation services across Aravind centres. During the reporting year, the Low Vision clinics at Madurai, Tirunelveli, Coimbatore, Pondicherry, and Tirupati assessed 8,312 individuals for low vision and functional vision. Those identified with ocular conditions received comprehensive care, including counselling, treatment, and rehabilitation. Among these, 58 children were provided with spectacles, five college students received free computer training, 26 patients underwent vision therapy, and 15 received smartphones. Additionally, 41 patients received non-optical devices, 161 patients were provided with optical aids, and 43 patients received electronic devices. A total of 120 Smart Vision Glasses

*Screening of children at a camp*





*Beneficiaries experiencing the Smart Vision Glasses  
Aravind-Tirunelveli*

(SVG) were distributed to deserving individuals. Low vision evaluation training was also provided to six college students. Furthermore, outreach camps and awareness campaigns were conducted in special schools and paediatric hospitals surrounding the implementing centres to screen children for early detection of low vision and vision impairment.

### **Integrating school eye health into primary eye care - pilot project**

Supported by the AEF, this project addresses visual impairment among school-going and pre-school children within the service areas of Aravind Vision Centres, focusing particularly on uncorrected refractive errors and other treatable eye conditions. During the reporting period, at Aravind Eye Hospitals in Madurai and Tirunelveli, a total of 317 schools were enrolled, reaching 64,594 students. Of these, 21,234 students were screened resulting in the identification of 6,442 children with defective vision who were referred for further evaluation. Among these, 1,684 students

*School children screening programme*



*Distribution of low vision aids through the Vision Aid project at Aravind-Coimbatore*

reported to the vision centres. Of those examined, 1,010 were advised to use spectacles, and 951 placed orders for them. Additionally, 306 students were referred to the base hospital for specialised care. A similar project, supported by Trees for Life International, USA, was implemented at Aravind-Pondicherry, targeting five vision centres in the Viluppuram District. Under this initiative, 33 schools were covered, with 19,900 students screened. Of these, 2,709 students were referred to vision centres for detailed examination, and 466 reported for follow-up. Among them, 186 were advised to use spectacles, with 184 having received them. Additionally, 83 students were referred to the base hospital for further care, and 39 have reached the hospital.

### **Systematic paediatric eye care through sibling screening strategies (SPECSSS)**

Supported by Seva Foundation, this project completed in March 2025, aimed to enhance holistic paediatric eye care by implementing sibling screening for children

*Paediatric eye care through sibling screening*



diagnosed with heritable eye disorders across the tertiary, secondary, and vision centres of Aravind-Tirunelveli. Through early identification and timely intervention, the initiative ensured the provision of spectacles, low vision aids, and surgical care, either free of cost or at subsidised rates, for children in need. In parallel, efforts were made to strengthen the Paediatric Ophthalmology Department at the tertiary level. The project also focused on identifying the predictors and barriers influencing sibling screening to improve uptake and coverage. Notably, 12,434 siblings were screened, 235 surgeries were performed out of 313 advised, 1,075 spectacles were distributed, and 331 children received vision therapy.

### Funding to promote innovation

Funded by the Aravind Eye Foundation (AEF), the ACEi drives system-wide innovation across Aravind Eye Hospitals. AEF supported the sixth edition of the Annual ACEi Hackathon held on January 2025, as well as the Aravind Inspiring Innovator Award (AIIA) 2025, which recognises staff-led innovations. With support from the SEVA Foundation, two innovations by Dr. Atul S. Puthalath were being piloted. The first is the Blue Light Unit (BLU) Patch, a low-cost smartphone accessory designed to capture high-quality blue light images of fluorescein-stained corneas. The second is Rapid Evaluation and Diagnosis of External Ocular Lesions (READ), developed to aid tele-ophthalmology services. These projects were in the implementation phase, focusing on training, validation, and integration into routine care.

### Research on the impact of a digital registry on management of diabetic retinopathy

With support from the Lions Club International Foundation, the research project aimed to motivate DR patients to undergo regular eye examinations and prevent disease progression. Implemented across 20 vision centres, a study enrolled 3,066 DR patients in the intervention arm, utilising phone calls, field visits, and SMS reminders to improve follow-up adherence. With 46% of patients reached via phone and 19% through field visits, the project successfully educated patients about DR risks and the importance of timely follow-ups. A total of 45,409 SMS were sent to reinforce care continuity. Additionally, a patient registry was developed by integrating data from electronic medical records to streamline follow-up tracking. The project demonstrated an effective, patient-centric approach, and future plans include expanding the DR registry, improving follow-up compliance, and addressing adherence barriers.

### Eye care awareness through patient education

To raise awareness about eye care among patients and employees, Aravind employs various innovative strategies to reach wider communities, ultimately benefiting patients.

Aravind-Madurai conducted the emergency resuscitation room exhibition on 7-9 November 2024 that served as an eye-opener for staff, enhancing their knowledge of basic life support systems, emergency situation handling, and understanding of normal and upnormal body functions.

*Dr. Rathinam and Dr. Banushree visiting the Intensive Care Unit exhibition at Aravind-Madurai*





## CREATING EYE CARE AWARENESS

World Disability Day

Aravind-Madurai



Myopia Day

Aravind-Dindigul



Aravind-Tirunelveli



World Sight Day

Aravind-Madurai





## World Glaucoma Week

*Screening camp, Aravind-Madurai*



*Awareness exhibition, Aravind-Tirunelveli*



*Screening camp, Aravind-Tirupathi*



*Awareness exhibition, Aravind-Chennai*



*World glaucoma week awareness rally at Aravind-Salem*



## PERFORMANCE APRIL 2024 - MARCH 2025

	Total	Madurai	Dindigul	Theni	Tirunelveli	Tuticorin	Kovilpatti	Coimbatore
<b>OUT-PATIENT VISITS</b>								
<b>HOSPITALS</b>								
Paying sections	<b>3,123,566</b>	699,786	113,400	106,756	376,237	69,229	39,687	416,432
Free sections	<b>1,170,203</b>	274,619	29,035	34,020	103,951	19,141	14,219	141,575
<b>OUTREACH</b>								
<b>SCREENING CAMPS</b>								
Comprehensive camps	<b>389,791</b>	97,652	-	14,608	47,945	4,116	2,233	66,317
Diabetic Retinopathy screening camps	<b>25,795</b>	9,374	-	3,378	875	-	-	9,152
Workplace refraction camps	<b>61,217</b>	8,843	-	4,661	14,841	2,182	621	14,048
Schoolchildren examined by Aravind staff*	<b>53,146</b>	10,947	-	5,020	7,762	-	229	10,633
Paediatric eye screening	<b>7,920</b>	-	-	380	124	-	-	552
Mobile van refraction camps	<b>13,310</b>	-	-	178	-	-	-	595
RoP-No. of babies screened in NICUs	<b>12,643</b>	3,073	-	1,436	1,822	-	-	4,398
TOTAL FROM SCREENING CAMPS*	<b>563,822</b>	129,889	-	29,661	73,369	6,298	3,083	105,695
VISION CENTRES	<b>1,019,806</b>	340,737	-	74,836	186,102	-	-	74,025
COMMUNITY EYE CLINICS & CITY CENTRES	<b>222,502</b>	108,068	-	28,490	33,967	-	-	-
<b>TOTAL OUT-PATIENT VISITS</b>	<b>6,099,899</b>	1,553,099	142,435	273,763	773,626	94,668	56,989	737,727
<b>SURGERIES, LASER PROCEDURES &amp; INJECTIONS</b>								
Paying sections	<b>370,500</b>	91,736	7,643	10,712	47,480	4,446	2443	58,736
Subsidised (walk-ins to the free hospital)	<b>257,052</b>	58,704	5,111	5,953	23,411	3,414	2716	34,375
Free (through screening camps)	<b>106,770</b>	28,046	293	2,462	12,099	499	389	23,680
<b>TOTAL SURGERIES</b>	<b>734,322</b>	178,486	13,047	19,127	82,990	8,359	5,548	116,791

\*While the Aravind team screened 53,146 schoolchildren, an additional 455,630 children were screened by teachers/vision screeners and found to be normal.

## SURGERIES

	Total	Madurai	Dindigul	Theni	Tirunelveli	Tuticorin	Kovilpatti	Coimbatore
Cataract surgeries	<b>450,901</b>	105,095	10,800	13,619	46,112	7,260	4,727	60,729
Trab and combined procedures	<b>9,057</b>	2,495	31	32	1,546	21	-	1,510
Retina and vitreous surgeries	<b>25,303</b>	8,048	-	3	2,930	-	-	6,402
Squint correction	<b>3,234</b>	1,045	-	-	354	-	-	1,014
Keratoplasty (Incl. Graft procedures, Keratotomies, DSAEK)	<b>2,896</b>	743	-	5	398	-	-	591
Pterygium surgery	<b>11,601</b>	2,980	473	419	814	-	49	1,370
Ocular injuries	<b>1,268</b>	326	-	5	144	-	-	280
Lacrimal surgeries	<b>6,265</b>	2,931	-	26	460	-	-	1,031
Orbit and oculoplasty surgeries	<b>9,105</b>	2,503	31	80	883	26	25	1,997
Refractive laser procedures	<b>5,984</b>	1,384	-	-	1,176	-	-	859
Retinal laser procedures	<b>72,391</b>	14,786	-	2,083	7,281	-	-	17,466
YAG laser procedures	<b>64,467</b>	16,914	1,585	1,466	12,524	1,012	734	6,625
Intravitreal injections (Anti VEGF & Steroids)	<b>50,598</b>	12,341	-	1,293	5,872	-	-	11,646
Other surgeries, laser procedures & injections	<b>23,910</b>	7,130	143	118	2,715	43	14	6,596
<b>TOTAL SURGERIES</b>	<b>734,322</b>	178,486	13,047	19,127	82,990	8,359	5,548	116,791

Tirupur	Udumalpet	CBE CC	Pondicherry	Salem	Chennai	Tirupati
59,890	54,894	57,967	321,347	152,162	486,041	169,738
29,963	26,289	-	114,994	73,237	147,569	161,591
7,431	3,928	-	61,157	23,777	40,759	19,868
-	-	-	1,920	903	-	193
1,346	1,534	-	6,274	2,230	2,673	1,964
904	1,221	-	11,075	1,990	1,826	1,539
361	-	-	6,503	-	-	-
-	-	-	-	12,537	-	-
-	-	-	527	-	1,129	258
10,042	6,683	-	87,456	41,437	46,387	23,822
23,051	27,744	-	198,258	52,928	42,125	-
-	-	-	32,181	-	13,349	6,447
122,946	115,610	57,967	754,236	319,764	735,471	361,598
3,816	5,059	5,277	41,440	17,417	59,718	14,577
4,886	6,472	-	28,772	18,028	30,968	34,242
1,328	749	-	17,415	6,177	8,692	4,941
10,030	12,280	5,277	87,627	41,622	99,378	53,760

This takes the total outreach screening to 1,019,452.

Tirupur	Udumalpet	CBE CC	Pondicherry	Salem	Chennai	Tirupati
8,790	11,103	3,174	54,979	31,995	57,719	34,799
46	-	36	1,374	161	1,266	539
-	-	-	2,973	681	2,927	1,339
-	-	-	258	3	382	178
-	-	2	477	53	351	276
153	146	71	1,312	738	1,633	1,443
-	-	-	174	76	99	164
-	-	-	780	12	595	430
35	51	85	1,221	75	1,561	532
-	-	-	778	116	1,337	334
-	2	880	9,842	2,947	12,273	4,831
942	920	681	5,432	2,309	9,194	4,129
-	25	329	6,431	1,867	7,031	3,763
69	40	22	2,053	693	3,125	1,149
10,030	12,280	5,277	87,627	41,622	99,378	53,760

In the year ending March 2025, over **6 million** outpatient visits were handled and **734,322** surgeries, laser procedures, and injections were performed across all Aravind Eye Hospitals.





## Community Outreach

Over the past year, Aravind's outreach eye camps screened 563,822 patients, and 106,770 patients underwent surgeries for cataract and other eye conditions.

### Sight First seminar

Hosted by Aravind-Madurai, the International Association of Lions Clubs - District 324 B organised the annual Sight First seminar on 10<sup>th</sup> August 2024 aimed to raise awareness about blindness and visual impairment among its newly elected office bearers for the year 2024-2025 and members. A total of 139 participants from Madurai and Sivagangai districts, including past District Governors, attended the seminar. Notably, this awareness seminar has been conducted for over two decades.

### Annual outreach meeting

This annual meeting for camp organisers and the admin team, organised by Aravind-Pondicherry on 7-8 January 2025, reflected on a year of progress and collaboration. The gathering provided an opportunity

*Sponsors' day at Aravind-Pondicherry*



*Dr. Kowsalya presenting on common eye problems and the impact of diabetes on vision at the Sight First Seminar*

to share insights and discuss ways to reach even more communities in need of eye care in 2025. From analysing the performance of 2024 to addressing challenges, every conversation focused on continuous improvement and finding new ways to eliminate avoidable blindness.

### Sponsors' Day 2025

Aravind Eye Hospital, Salem and Pondicherry organised Sponsors' Day 2025, bringing together camp sponsors to honour their invaluable contributions to eye care. The event felicitated the eye donation sponsors and camp sponsors, honouring their selfless efforts with mementos and encouraging them to continue their support.

### Community eye clinics and city centres

During April 2024 to March 2025, four community eye clinics and four city centres together handled 222,502 patient visits.

*Dr. Sankaranandhan addressing the gathering on Sponsors' day at Aravind-Salem*



## Outreach Performance APRIL 2024 - MARCH 2025

	Total	Madurai	Theni	Tirunelveli	Coimbatore	Pondicherry	Tirupur	Salem	Tuticorin	Udumalpet	Chennai	Tirupati	Kovilpatti
<b>FREE EYE CAMPS</b>													
<b>Comprehensive Eye Camps</b>													
Camps	<b>2,078</b>	464	75	278	377	268	35	135	26	28	232	141	19
Patients examined	<b>389,791</b>	97,652	14,608	47,945	66,317	61,157	7,431	23,777	4,116	3,928	40,759	19,868	2,233
Glasses prescribed	<b>91,947</b>	18,899	4,492	11,446	13,564	14,126	2,592	5,451	1,288	906	15,038	3,689	456
Glass delivered	<b>77,674</b>	16,040	4,256	9,686	12,427	10,823	2,403	4,690	1,131	816	11,828	3,214	360
Glasses dispensed on the spot	<b>66,213</b>	14,879	3,498	8,265	11,905	9,831	1,878	3,446	720	630	8,761	2,171	229
<b>Diabetic Retinopathy Screening Camps</b>													
Camps	<b>279</b>	54	74	10	104	23	-	10	-	-	-	4	-
Patients examined	<b>25,795</b>	9,374	3,378	875	9,152	1,920	-	903	-	-	-	193	-
Diabetics screened	<b>16,210</b>	4,950	3,378	369	6,123	896	-	379	-	-	-	115	-
DR Patients screened	<b>2,278</b>	815	121	99	971	152	-	93	-	-	-	27	-
<b>Refraction Camps</b>													
Camps	<b>269</b>	34	19	60	42	46	9	15	12	7	8	13	4
Patient examined	<b>61,217</b>	8,843	4,661	14,841	14,048	6,274	1,346	2,230	2,182	1,534	2,673	1,964	621
Glasses prescribed	<b>22,002</b>	3,062	2,176	6,244	4,499	2,450	513	686	749	298	650	469	206
Glasses delivered	<b>19,452</b>	2,831	2,139	5,970	3,868	1,629	452	626	629	268	500	339	201
On-the-spot deliveries	<b>15,798</b>	2,572	1,912	4,690	3,169	1,279	365	585	205	159	403	263	196
<b>Refraction Camps by Mobile Unit</b>													
Camps	<b>157</b>	-	4	-	5	-	-	148	-	-	-	-	-
Patients examined	<b>13,310</b>	-	178	-	595	-	-	12,537	-	-	-	-	-
Glasses prescribed	<b>3,426</b>	-	28	-	101	-	-	3,297	-	-	-	-	-
Glasses delivered	<b>2,453</b>	-	28	-	82	-	-	2,343	-	-	-	-	-
<b>Eye Screening of School Children-Base Hospital</b>													
Schools served	<b>987</b>	333	30	197	194	89	15	22	-	11	15	14	67
Camps	<b>459</b>	83	30	68	113	63	10	47	-	11	15	19	-
Teachers trained	<b>378</b>	-	-	-	170	144	-	-	-	2	62	-	-
Total Strength in school	<b>508,776</b>	125,079	33,838	85,723	109,439	75,121	13,037	29,351	-	11,610	8,255	10,926	6,397
Children screened by Oph.	<b>53,146</b>	10,947	5,020	7,762	10,633	11,075	904	1,990	-	1,221	1,826	1,539	229
Children received glasses	<b>16,646</b>	1,900	1,178	3,647	5,054	2,937	488	416	-	322	103	453	148
Children identified with eye defects other than Refractive Error	<b>6613</b>	778	524	1,043	1,908	1,287	122	380	-	147	155	255	14
<b>Paediatric Eye Screening Camps</b>													
Camps	<b>32</b>	-	1	1	3	25	2	-	-	-	-	-	-
Children Examined	<b>7,920</b>	-	380	124	552	6,503	361	-	-	-	-	-	-
Refractive Errors	<b>52</b>	-	52	-	-	-	-	-	-	-	-	-	-
Glasses prescribed	<b>11</b>	-	11	-	-	-	-	-	-	-	-	-	-
Glasses delivered	<b>11</b>	-	11	-	-	-	-	-	-	-	-	-	-
Children identified with eye defects other than Refractive Error	<b>993</b>	-	52	24	1	900	16	-	-	-	-	-	-
<b>RoP Screening</b>													
Screening Visits	<b>1,734</b>	516	139	311	360	141	-	-	-	-	222	45	-
Babies screened	<b>12,643</b>	3,073	1,436	1,822	4,398	527	-	-	-	-	1,129	258	-
Babies with ROP	<b>1,148</b>	317	38	127	307	85	-	-	-	-	261	13	-
ROP Babies treated	<b>471</b>	66	20	107	181	22	-	-	-	-	69	6	-
<b>VISION CENTRES</b>													
Centres	<b>117</b>	39	7	20	8	19	3	9	-	4	8	-	-
New + Review	<b>1,019,806</b>	340,737	74,836	186,102	74,025	198,258	23,051	52,928	-	27,744	42,125	-	-
Out-patients / day	<b>28</b>	29	34	31	30	34	25	20	-	22	17	-	-
<b>COMMUNITY EYE CLINICS AND CITY CENTRES</b>													
Centres	<b>8</b>	3	1	1	-	1	-	-	-	-	1	1	-
New + Review	<b>222,502</b>	108,068	28,490	33,967	-	32,181	-	-	-	-	13,349	6,447	-
Outpatients / day	<b>90</b>	116	110	92	-	104	-	-	-	-	43	22	-

## Vision Centres

The total number of vision centres rose to 117 last year, with the addition of five new centres in various locations.

### Vision centre CMEs

A total of five Continuing Medical Education (CME) programmes were conducted for vision centre teams across the base hospitals in Madurai, Coimbatore, Tirunelveli, Chennai, and Salem. Held at various locations and dates, the CMEs focused primarily on strategic planning for 2025, reinforcing care Aravind's core values such as adherence to protocol, frugality, and integrity. Special emphasis was placed on strengthening outreach efforts, increasing the frequency of community eye camps, promoting best practices among AOPs, and updating them on the latest advancements in eye care. As part of the events, Aurowell check-ups were also conducted. Notably, at Aravind-Tirunelveli, the CME was held alongside a programme for Aravind Staff Support (PASS), an initiative to recognise the contributions of staff families and deepen their understanding of hospital operations.

### Sight First seminar

Held at Aravind-Theni on 22<sup>nd</sup> December 2024, the Seminar for Lion's Club members featured a comprehensive review of Vision Centre monitoring processes, with an in-depth presentation of data from January to November 2024, and centre-wise performance metrics.

*Vision centre CME programme at Aravind - Tirunelveli*



### Vision centres inaugurated in 2024 - 2025



*Thiru. Subburaman inaugurating the VC at Thalaivasal, Salem on 5<sup>th</sup> April*



*Dr. Jayaraman inaugurating the VC at Harur, Salem on 10<sup>th</sup> April*



*Dr. Ramakrishnan inaugurating the VC at Kayathar, Tirunelveli on 31<sup>st</sup> July*



*MJF Ln. Dr. G. Narasimhan inaugurating the VC at Kilpennathur, Pondicherry on 17<sup>th</sup> July*



*Dr. Sharmila inaugurating the VC at Aranthangi, Madurai on 16<sup>th</sup> September*



## Aravind Integrated Eye Bank Service

With the vision of providing solution to corneal blindness, Aravind Integrated Eye Bank services (AIEBS) has been working since 1998 with various stakeholders to promote awareness on eye donation, identify and train volunteers, create a platform for timely death notification from the community, and efficiently respond to eye donation calls.

Along with various community volunteers, and clubs like Lions, Rotary, and educational institutions, AIEBS works towards creating a supportive environment for eye donation by reaching out to the deceased's family member and collecting eyes. Notably, 55% of the cornea have been collected through the community cornea retrieval programme.

Currently, AIEBS is collaborating with 15 government medical college hospitals for implementing Hospital Cornea Retrieval Programme (HCRP). Further, the collaboration has been extended to include private hospitals as well. Notably, 45 % of the corneas are collected through HCRP programme. Last year, the Rotary Aravind International Eye Bank (RAIEB), Aravind-Madurai formally launched the HCRP at the Government Medical College and Hospital, Ariyalur.

A new Aravind Eye Collection Centre was inaugurated by Aravind Eye Bank Association of Pondicherry (AEBAP), at Chinna Salem on 10<sup>th</sup> March 2025, with the active participation from the community. This centre now enables prompt response to all

*Training programme on eyebank technician at Aravind-Madurai*



*During the inauguration of Aravind Eye Collection Centre at Aravind-Pondicherry*

community eye donation calls in and around Chinna Salem.

RAIEB, Aravind-Madurai, renewed quality certification issued by the Cure Blindness Project, USA, which is valid for three years. This is the first time, the eye bank has received a quality certificate for a three-year period. Further, Aravind Eye Banks have distributed corneas, sclera, and Amniotic Membrane Graft to 46 institutions.

## Training

Last year RAIEB provided training to 10 eye bank technicians and 2 eye donation counsellors.

## Awareness creation

AIEBS continuously organise awareness programmes with the support of volunteers, educational institutions, clubs and hospitals. The 39<sup>th</sup> National Eye Donation Fortnight was observed from 25<sup>th</sup> August 2024 to 8<sup>th</sup> September 2024 with a variety of programmes intended to sensitise the public to the importance of eye donation and seek their support.

## Statistics

Centre	Eyes collected	Eyes utilised for corneal transplantation	Sent to other institutions
Madurai	3,312	778	259
Coimbatore	1,145	488	11
Tirunelveli	1,174	451	13
Pondicherry	811	377	25
Chennai	374	238	26
Total	6816	2332	334

## Eye donation Fortnight

Aravind-Tirunelveli



Aravind-Salem



Aravind-Pondicherry



Aravind-Chennai



Aravind - Madurai







## Education & Training

*Priority for education and training has taken the institution a long way, facilitating employees, participants from other eye care providers, and individuals from diverse fields, with the latest developments in ophthalmology and beyond, holistically for the benefit of the community.*

*The courses offered at Aravind are meticulously tailored to meet the individual needs of the candidates and to empower them to deliver effective eye care services and prepare them for upcoming challenges in the field. In the past year, AECS has set up Aravind Rotary Center For Advanced Ophthalmic Resources & Education (ARCORE) , a cutting-edge training facility in Chennai facilitating hybrid ways of skills enhancement, further, broadens the horizon of learning.*

In the last year (April 2024 - March 2025), 577 candidates underwent training at various clinical and management courses offered at Aravind.



### POSTGRADUATE COURSES

Master of Surgery in Ophthalmology (3 years)	20
Diplomate of the National Board (3 years)	27
Post DO DNB (2 years)	21

### LONG-TERM OPHTHALMOLOGY FELLOWSHIP

Ant. Segment / Intraocular Lens Microsurgery (2 years)	33
Orbit & Oculoplasty (18 months)	06
Paediatric Ophthalmology & Strabismus (18 months)	09
Glaucoma (2 years)	25
Retina and Vitreous (2 years)	37
Comprehensive Ophthalmology (2 years)	02
Cornea (18 months)	26
Medical Retina (1 year)	07
Uvea (1 year)	01
Fellowship in General Ophthalmology	27

### LONG-TERM OPHTHALMOLOGY FELLOWSHIP (INTERNATIONAL)

Glaucoma (1 year)	01
Paediatric Ophthalmology & Strabismus (1 year)	01
Orbit & Oculoplasty (1 year)	01

### SHORT-TERM OPHTHALMOLOGY FELLOWSHIP (INTERNATIONAL)

Orbit & Oculoplasty (6 Months)	03
Glaucoma (6 Months)	01
Cornea (6 Months)	01
Retina Vitreous (6 Months)	01

### SHORT-TERM CLINICAL COURSES FOR OPHTHALMOLOGISTS

Clinical Observership Programme in Diagnosis and Management of Glaucoma (1 month)	12
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Phacoemulsification (1 month)	64
Small Incision Cataract Surgery (1 month)	63
Management of Retinopathy of Prematurity & Paediatric Retinal Disorders (1 month)	09
HelpMeSee Simulation-Based Training in MSICS (1 week)	13

### SHORT-TERM PARAMEDICAL COURSES

Vision Technicians	04
Fundus Fluorescein Angiography and Ultrasonography	02
Optical Dispensing	05
Short-Term Course in OT Techniques	03
Short-Term Course in Refraction Techniques	01
Training for Ocularist	01
Training for Orthoptists	02

### MANAGEMENT COURSES

Fellowship in Eye Hospital Management (1 year)	07
Community Outreach and Social Marketing for Eye Care Services (3 weeks)	14
Eyexcel – Excellence in Eye Care Training (5 days)	31
Management Priorities in Eye Care Delivery (1 week)	27
Management Training and Systems/ Development for Hospital Administrators/ Managers (1 month)	22
Management Training for Eye Care Programme Managers (2 weeks)	13
Online Project Management for Eye Care (1 month)	16
Ophthalmic Instrument Maintenance - For Technicians (1 month)	09
Ophthalmic Instruments Maintenance (Online)	05
Eye Bank Management	04



*CME/CPE programmes, workshops, seminars, special talks, and peer learning activities for ophthalmologists, postgraduates, AOPs, and admin staff, and participants outside Aravind, form a major part of Aravind's education and training activity, facilitating access to the latest trends in ophthalmology.*

## Continuing Medical/ Professional Education (CME/CPE) programmes

### TNOA Gurukulam @ 2.1: A Postgraduate Refresher Meet

Aravind-Madurai, 7<sup>th</sup> April 2024

Organised by the Tamil Nadu Ophthalmic Association (TNOA) in collaboration with the Madurai Ophthalmologists Association (MOA). The programme featured scientific discussions by eminent faculty from government and private colleges, presenting exam-oriented lectures, and providing valuable insights for postgraduates pursuing degrees in ophthalmology.

### GenZ Symposium

Aravind-Pondicherry, 21<sup>st</sup> April 2024

A first-of-its-kind symposium for educators, researchers, and professionals to engage in discussions and share insights on transforming learning spaces for the next generation, delving deep into the psyche of GenZ. The programme featured skill-transfer courses on surgical video editing, effective PowerPoint presentations, utilisation of social media for their advantage, so on.

*Dr. R.D. Ravindran being honoured at the TNOA Gurukulam*



*Ceremonial lamp lighting at the GenZ Symposium*

### Symposium on Molecular Genetics in Ophthalmology 2024:

Aravind-Madurai, 25<sup>th</sup> April 2024

The CME for doctors, faculty members and research scholars, focused on the basics of genetics in ophthalmology, specifically on glaucoma, retinoblastoma, and paediatric eye diseases.

### AT TENSION 2024: A Surgical CME on Refractive Glaucoma

Aravind-Madurai, 26-28 April 2024

The CME highlighted the continuing relevance of trabeculectomy and its complications with management, Glaucoma Drainage Devices (GDD) and their surgical techniques, the potential role of Minimally Invasive Glaucoma Surgeries (MIGS), and Non-Penetrating Deep Sclerectomy (NPDS).

*Dr. P. Namperumalsamy delivering the inaugural address at the Symposium on Molecular Genetics in Ophthalmology*





*At the surgical CME - AT Tension*

### **CME on Uvea4All**

Aravind-Pondicherry, 19<sup>th</sup> May 2024

At the CME focussing on exploring lapses in uveitis management, Dr. S.R. Rathinam, Chief, Uvea Services, Aravind-Madurai and Dr. Parthoprati Dutta Majumder from Sankara Nethralaya, Chennai, shared captivating insights on the discovery of organisms like leptospirosis, trematodes, and the West Nile virus during various outbreaks.

### **CME on Ocular Infections**

Aravind-Salem, 2<sup>nd</sup> June 2024

The CME for ophthalmologists, postgraduates, and microbiologists, centred on the role of conventional and molecular methods for microbial identification in diagnosing ocular infections, along with interesting case scenarios.

### **CME on Neuro Ophthal & Retina Decoded for Ophthal Practice & Postgraduates**

Aravind-Coimbatore, 12<sup>th</sup> June 2024

Organised in association with the Coimbatore Society of Ophthalmic Surgeons (CSOS), the CME featured various sessions including, Neuro-ophthalmology - approach to paralytic squint, Pupil - an invaluable tool in ophthalmic practice, Algorithm for easily diagnosing pallor of disc, Retina - need for proper macular evaluation for predicting sub optimal recovery following cataract surgery, Serous detachments of macula, Vitreo retinal emergencies needing prompt referral, and case presentations.

### **AIOS ARC Postgraduate Refresher Programme**

Aravind-Coimbatore, 28-30 June 2024

With participation from over 200 residents from across the country, the three-day programme featured 50 insightful lectures by both internal and external faculty, covering all essential topics in ophthalmology. In addition, hands-on workshops, interactive sessions, and six dry lab sessions were conducted.

*Participants of the CME on Uvea4all*







*Ceremonial lamp lighting at the AIOS ARC Postgraduate Refresher Programme*

### **CME on Retinal Imaging and Diagnostics**

Aravind-Salem, 14<sup>th</sup> July 2024

The event featured several talks, five case presentations by postgraduates, a hands-on demonstration session, and Observed Structured Clinical Examination (OSCE).

### **Diagnostic Skill Transfer Course**

Aravind-Pondicherry, 21<sup>st</sup> July 2024

To enhance the diagnostic skills of postgraduates from various hospitals, expert-led sessions and hands-on workshops were conducted. The key focus included, Fundus fluorescein angiography, Macular OCT, B-Scan, Humphrey visual field analysis, OCT Optic Nerve Head, Orbscan, Pentacam, Hess/Diplopia Charting, Visually Evoked Potential, and Electroretinogram.

### **CME on Paediatric Ophthalmology**

Aravind-Salem, 13<sup>th</sup> October 2024

The CME programme covering all aspects of paediatric ophthalmology, featured 12 talks, two case

*A hands-on session during the Diagnostic Skill Transfer Course*



*Participants of the CME on Retinal Imaging and Diagnostics*

presentations, a quiz programme, an exhibition, and OSCE.

### **Intravitreal Injections: A Comprehensive Workshop**

Aravind-Madurai, 25<sup>th</sup> October 2024

Organised in collaboration with National Health Mission, Tamil Nadu, the workshop aimed to enhance the participants' skills and knowledge in critical areas of ophthalmology, including injection techniques, protocols, and comprehensive postoperative endophthalmitis management.

### **CME on "Diabetes and I"**

Aravind-Tirunelveli, 1<sup>st</sup> December 2024

The CME provided a comprehensive overview of diabetes and its impact on systemic and ocular health. Speakers from various specialties shared valuable insights, making it a multidisciplinary learning experience.

*Training on injection techniques during the comprehensive workshop on Intravitreal Injections*





*Dr. R. Ramakrishnan & Dr. P. Vijayalakshmi along with the participants of the CME on Vision Rehabilitation - Current Perspectives*

### Vision Rehabilitation: Current Perspectives

Aravind-Tirunelveli, 8<sup>th</sup> December 2024

This CME aimed to update healthcare professionals on the latest techniques, resources, and interventions to enhance the quality of life for individuals with visual impairments.

### CME on Small Incision Cataract Surgery (SICS) and Phacoemulsification (Phaco) Basics

Aravind-Salem, 21<sup>st</sup> December 2024

This specialised workshop focused on providing comprehensive, practical knowledge on cataract surgery techniques, offering valuable hands-on wet lab training to eye care professionals.

### Retina4U CME - Endophthalmitis: Prevention, Treatment & Medicolegal Aspects

Aravind-Pondicherry, 23<sup>rd</sup> February 2025

The CME brought together some of the key resource persons in ophthalmology to discuss the latest advancements and challenges in managing endophthalmitis.

### Retina Surgical Mélange 2025

Aravind-Madurai, 9<sup>th</sup> February 2025

This surgical feast showcased the intricacies of vitreo-retina surgeries, and shared key insights on scleral buckling, ROP, giant retinal tears, diabetic membrane

### Hackathon

Two Hackathon events were successfully organised last year under the banner of the Aravind Centre for Eyecare Innovation (ACEi). The first mid year hackathon - the Eye Innovation Hackathon 2024, was jointly conducted by ACEi and IIT Tirupati at Aravind-Tirupati on 23-24 August 2024. Around 70 participants, including students from IIT Tirupati, Aravind doctors, and technicians, collaborated on nine problem statements, each aimed at finding innovative solutions in eye care.



*Hackathon, Aravind - Tirupati*



*ACEi Hackathon, Aravind - Pondicherry*

ACEi-Hackathon' 25 held at Aravind-Pondicherry from 3-5 January 2025, marked Aravind's sixth edition of the annual Hackathon. From 120 submitted ideas, 28 unique challenges were shortlisted. Over 48 hours of intense brainstorming and collaboration, mixed teams consisting of consultants, fellows, postgraduates, AOPs, managers, and engineering students developed and presented working prototypes addressing their selected problem statements. The most promising solutions were awarded cash prizes.





*Newly joined residents learning efficient literature review techniques during the Research Methodology Workshop*

dissection, complex retinal detachments, large macular holes, intraocular foreign body removal, and endophthalmitis.

### Research Methodology Workshop

Aravind-Pondicherry, 1st March 2025

The workshop brought together experts and young researchers for an insightful learning experience. In his introductory speech, Dr. R. Venkatesh, CMO, Aravind-Pondicherry, emphasised the importance of good research in advancing medical knowledge and improving patient care.

### NellaiCON 2025

Aravind-Tirunelveli, 23<sup>rd</sup> March 2025

Hosted by Aravind-Tirunelveli, NellaiCON 2025 was organised by the Tirunelveli Ophthalmic Association



*Dr. R. Ramakrishnan presenting a memento to Dr. Prasanth at the NellaiCon 2025*

in collaboration with AIOS ARC and TNOA ARC. The programme, themed Insight on Phaco Eye Infection, brought together experts for enriching academic discussions and knowledge exchange.

### Glaucoma Conclave: Demystifying Secondary Glaucoma

Aravind-Pondicherry, 30th March 2025

Focusing on extending the boundaries of glaucoma management and surgical excellence, the conclave comprised talks by renowned faculty, case-based discussions, wet lab, and video assisted skill transfer, covering all the aspects of secondary glaucoma.

*Participants of the Retina Surgical Mélange 2025*





## CMEs and Workshops at ARCORE Training Centre, Aravind - Chennai

### CME on Dacryology Master Class

10-11 August 2024

The CME comprised talks on the significance of lacrimal system evaluation, and epidemiology of CDC, and a surgical master class featuring live surgery. Participants also presented challenging cases for discussion. There was a hands-on live surgical demonstration of probing and endoscopic DCR by Dr. Javed Ali. Head, Dept. of Dacryology, LV Prasad Eye Institute, Hyderabad.

### Aravind Advanced Cataract programme

19-20 September 2024

Held in collaboration with the ALCON team, the CME for all Aravind doctors aimed to enhance their cataract surgical skills. The programme featured lectures, live surgery telecasts, and hands on experience in the wet lab. A guest lecture was delivered via Zoom by Dr. Richard Packard, Ophthalmology Consultant from the UK, on *The history of IOLs and dealing with unhappy multifocal patients*.

### Round Table on Optimising the Short-Term Postgraduate Training Programme

25<sup>th</sup> October 2024

To structure the curriculum for the Postgraduate Training Programme, heads of the departments and postgraduate coordinators from over 20 colleges across Chennai shared valuable insights and suggestions to help develop a structured course aimed at enhancing postgraduate's knowledge and skills in ophthalmology.

*Demonstration session with the IOL Master at the CME on Dacryology Master Class*



*A wet lab session at the Advanced Cataract Course*

### Advanced Cataract Course for External Ophthalmologists

22-24 November 2024

Organised in conjunction with Alcon, the course featured sessions on complex case management and refractive cataract surgery, including lectures, live surgeries, participants' surgical video reviews, and wet lab sessions.

### AIOS Prayogshala Glaucoma - Connect

17<sup>th</sup> November 2024

Held in collaboration with AIOS and TNOA, this postgraduate update programme provided a comprehensive overview of glaucoma, featuring hands-on training in various procedures such as applanation tonometry and gonioscopy.

*Training on the VR Simulator during the Short-Term Postgraduate Training Programme*







*Hands-on practice for ocular investigations at the Ikshana-Comprehensive Capsule for Postgraduates*

### **Ikshana Comprehensive Capsule for Postgraduates**

Aravind-Chennai

A total of four five-day workshops between 27<sup>th</sup> November 2024 and 23<sup>rd</sup> March 2025 were conducted at fundamental and advanced levels for postgraduates, offering comprehensive lectures in ophthalmology, surgical training through wet and dry lab sessions, hands-on practice in ocular investigations, and live surgery observation. Postgraduate students from across India and Aravind centres participated in the



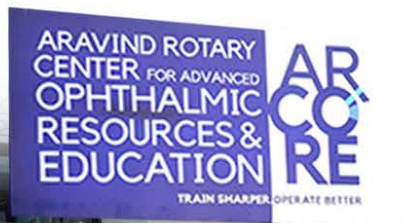
*At the AKSHIVIKAS – Aravind Advanced Cataract Programme*

programme. The advanced workshop featured in-depth lectures in comprehensive ophthalmology, OSCEs, quiz contests, and panel discussions.

### **AKSHIVIKAS – Aravind Advanced Cataract Programme**

Aravind-Chennai, 25–26 March 2025

AKSHIVIKAS, an advanced training programme for ophthalmologists conducted in collaboration with ALCON, aimed to enhance their cataract surgical skills. The programme saw the participation of 24 ophthalmologists from across India.



#### **ARCORE - 154**

A total of 154 participants attended ARCORE courses, including 41 in IKSHANA Phase 1, 41 in IKSHANA Phase 2, and 72 in the AKSHIVIKAS – Aravind Advanced Cataract Course.



Humanity



## Internal Capacity Building

Supported by the NIH D43 Fogarty Fellowship, Dr. Anitha Venugopal, Medical Consultant, Cornea Services, Aravind–Tirunelveli, completed her MicroMasters in Clinical Epidemiological Research/Genomics in Epidemiology at the University of Michigan last year.

Her academic work included evaluating preclinical genetic predictors for keratoconus in individuals with down syndrome, developing a Kerascan device for community-based screening for keratoconus, validating it against the Pentacam, and studying the differential progression of keratoconus among individuals with down syndrome and the general population.



Dr. Anitha Venugopal and Dr. Lokeshwari Aruljyothi with Dr. Josh Ehrlich, University of Michigan

Similarly, Dr. Lokeshwari Aruljyothi, Medical Consultant, Cornea Services, Aravind–Salem, completed her MicroMasters in Clinical Epidemiological Research in the Department of Ophthalmology and Visual Sciences at the University of Michigan last year.

Her research, titled Evaluating the efficacy of Large Language Models (LLMs) in the extraction of microbial keratitis descriptors from electronic health records, focuses on exploring various LLM models and prompting strategies, and on training and testing these models using customised prompts on free-text clinician notes from the AEH dataset.

### Visit to the USA

USA, 6-11 August 2024

Dr. Parag Shah, Chief, Paediatric Retina and Ocular Oncology Services, Aravind-Coimbatore, visited the Moran Eye Center, University of Utah, USA, from 6-8 August 2024, presenting a talk on “ROP Telescreening: The Aravind Experience” at the Grand Rounds. He joined Dr. Eileen Hwang, Assistant Professor, Department of Ophthalmology and Visual Sciences, University of Utah for ROP rounds and engaged in retina cases with Dr. Paul Bernstein, Director of Research and Chief of Retina Services. Additionally, he observed some of Dr.

Jeff Petty’s cataract cases utilising the Beyeonics microscope.

Dr. Jeff Petty remarked that Dr. Parag Shah’s visit, particularly his exceptional grand rounds on Aravind’s tele-retinal ROP care, has sparked discussions and led to several promising initiatives. These include plans to expand the tele-retinal network and lead a potential collaboration with Dr. Eileen Hwang, the hospital’s paediatric retina specialist.

### Visit to Maastricht University

Netherlands, 14-18 October 2024

Dr. Sharmila, Medical Consultant, Glaucoma Services, Aravind-Madurai, visited Maastricht University,

Netherlands, to discuss her thesis with her Ph.D. guides Dr. Tos Berendschot, Faculty of Health, Medicine and Life Sciences and Dr. Weber.

### Visit to Tilganga Institute of Ophthalmology and Nepal Eye Hospital

Nepal, 8-10 April 2024

Dr. Anu Paul, IOL Fellow, Aravind-Madurai, was a resource person for the workshops held at the Tilganga Institute of Ophthalmology, and Nepal Eye Hospital, Kathmandu, Nepal, to train the hospitals’ staff in Subtenon Anesthesia.

Dr. Parag Shah (centre) with Dr. Jeff Petty (left)



Dr. Sharmila with her research guide Dr. Tos Berendschot



Dr. Anu Paulat with Dr. Sanduk Ruit, Founder & Executive Director of Tilganga Institute





## International & All India Conferences attended by Aravind staff

Guest Lecture at the Department of Ophthalmology, Columbia University  
New York, 4<sup>th</sup> April 2024

**DR. HARIPRIYA ARAVIND**

- Combining scale and quality: The Aravind way

50<sup>th</sup> Annual Meeting of American Society of Cataract and Refractive Surgery (ASCRS)

USA, 5-8 April 2024

**DR. HARIPRIYA ARAVIND**

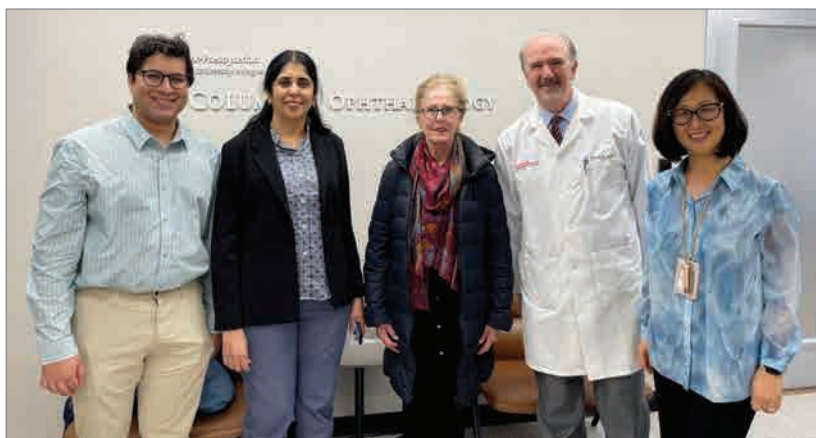
- The Aravind pseudoexfoliation study: Ten-year post-operative results (Paper)
- Aravind's RCT trial on sub conj steroid for cataract surgery
- Intracameral Moxi prophylaxis
- MSCIS in challenging cases
- Management of subluxated hard cataracts

**DR. MOHIDEEN ABDUL KADER**

- Early Outcomes of Gonioscopy Assisted Transluminal Trabeculotomy (GATT) in Primary Angle Closure Glaucoma in Indian Population
- Combined Micro hook goniosynechiolysis (GSL) and GATT in Primary Angle Closure Glaucoma (PACG) (Video)

**DR. DEVENDRA MAHESHWARI**

- Surgical outcomes of AADI v/s AGV in Indian population (Paper)
- Easy hooking with tanito microhook: A newer goniotomies with espiailat
- Evaluation of microvascular changes and optic nerve perfusion following trabeculectomy using OCT-A (E-poster)



Dr. Haripriya Aravind, second from the left, with Dr. R. Christine Melton, Dr. George Cioffi, and Dr. Lisa Park, during her visit to Columbia University

- Steer clear of the blind entry: A novel technique of Ab interni non valve implant tube (Video)
- Comparison of GATT vs Tanito in open angle glaucoma (Free paper)
- Outcomes of GATT vs BANG in open angle glaucoma (Free paper)
- MIGS in angle closure glaucoma (IC)
- Different MIGS in various spectrum of glaucoma (IC)
- ASOCT in post MIGS procedures (Video)

**DR. V.R. VIVEKANANDAN**

- What not to do: Part 1 (Video)
- Flanged SFIOL my way: A novel technique with a speciality designed needle suture combo (Presenting Author)
- When phaco is not an option, MSICS to the rescue (Co-Instructor:)
- Complex cataract Scenarios: Made simple (Instructor)

**DR. JOSEPHINE S. CHRISTY**

- Prevalence of keratoconus among patients with vernal keratoconjunctivitis (Paper)
- Comparison between two techniques of capsular opening in intumescent cataract (Paper)
- Effectiveness of screening criteria in diagnosing keratoconus among 'less than 14 years' children in South India (E-poster)
- Descemet membrane detachment: Never detach never again! (Video)

**DR. DIVYAKARTHIK**

- Broken IOLs
- Cataracts in Compromised corneas
- Look before you leap: Navigating Suspect topography
- Lessons in Cataract Surgery: What the developing world can teach! (Video)

Aravind doctors at the 50<sup>th</sup> Annual Meeting of American Society of Cataract and Refractive Surgery (ASCRS)





Senior scientists from AMRF at the Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO) 2024

### Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO) 2024

Washington, 5-9 May 2024

**SETHU NAGARAJAN, DR. GOWRI PRIYA CHIDAMBARANATHAN, DR. R. KIM, DR. USHA KIM, PROF. K. DHARMALINGAM, & DR. A. VANNIARAJAN**

- Inhibition of KIF14 suppresses the retinoblastoma tumour progression with favourable outcome (Paper)

**DR. P. SUNDARESAN, PRAKASH CHERMAKANI, & S. MAHESHKUMAR**

- Unravelling Nuclear and Mitochondrial Contributions in Leber's Hereditary Optic Neuropathy (Poster)

**DR. GOWRI PRIYA CHIDAMBARANATHAN, SNEHA NAIR, DR. R. KRISHNADAS, DR. V. MUTHUKARUPPAN, DR. A. VANNIARAJAN, & DR. D. BHARANIDHARAN**

- MicroRNAs regulating human trabecular meshwork stem cells (Poster)

**SHREYA DINESH, PROF. K. DHARMALINGAM, DR. LALITHA PRAJNA, DR. N.V. PRAJNA, DR. D. BHARANIDHARAN**

- Dysregulated miRNAs and their role in Fusarium Keratitis (Poster)

### 12<sup>th</sup> International Congress on Glaucoma Surgery

Abu Dhabi, 18-20 April 2024

**DR. R. SHARMILA**

- Sailing through shallow seas: Managing post op hypotony following tube surgery (Video)
- Nanophthalmos (Bad eyes)

### Workshop for Trainers on Integrated People-Centred Eye Care (IPEC)

China, 3<sup>rd</sup> June 2024

**THULASIRAJ RAVILLA**

- Challenges, barriers, and priorities in implementing IPEC, and implementation of IPEC at Aravind

### SANIL JOSEPH

- Eye Care Competency Framework (ECCF) and comprehensive training and capacity building for the eye care workforce in India

### International Agency for the Prevention of Blindness (IAPB) In Sight Live Conference

Mexico, 26-27 June 2024

**Dhivya Ramasamy**

- Panel on sustainability and eye care

### 5<sup>th</sup> World Congress of Paediatric Ophthalmology & Strabismus

Malaysia, 11-13 July 2024

**DR. P. VIJAYALAKSHMI**

- Transforming disability (visual) to ability in children

**DR. KALPANA NARENDHAN**

- Secondary IOL implantation in children

**DR. B. SAHITHYA**

- Referral uptake in school screening among children poster village (Oral Presentation)
- Comparative study on outreach screening model vs hospital-based screening for children with multi disabilities (Poster)
- Smart vision glasses (Video)

**DR. M. ELACKIYA**

- Straatsma syndrome: Clinical profile – A case series (Poster)
- Deciphering the telltale sign: Pursuit dysfunction in a kid leads way to detection of medulloblastoma (Video)

**DR. SHASHIKANT SHETTY**

- Nystagmus session (Moderator)

Invited talk by Thulasiraj Ravilla at the Workshop for Trainers on Integrated People-Centred Eye Care (IPEC), China



Dhivya Ramasamy at a panel discussion on the IAPB In Sight Live Conference







Doctors from Aravind at the 5<sup>th</sup> World Congress of Paediatric Ophthalmology & Strabismus, Kuala Lumpur

- Syndromes associated with strabismus along with management (Moderator)
- Non-surgical management of nystagmus

**DR. SNEHA PANDURANGAN**

- Long term post operative follow-up outcome in paediatric cataract surgery in a tertiary care Institute (Free paper)
- Pattern of progression and characteristics of infantile myopia (E-Poster)

**DR. NITHYA SRIDHARAN**

- Rise of acute comitant esotropia post covid-19 lockdown (Paper)

**DR. ANJALI KHADIA**

- Surgical outcomes of esotropia in children: A retrospective comparative study (Poster)
- Clinical profile of paediatric strabismus in a tertiary eye care hospital in South India (Poster)
- Magic ball of strabismus (Video)
- A simple way for teaching residents on the strabismus examination (Video)

**DR. ANKITA BISANI**

- Combined unilateral Strabismus and Cataract Surgery (StACS) in adults: safety, efficacy and predictive factors (Free paper)
- Straastma syndrome: Paediatric case series (E-Poster)
- Combination of strabismus surgeries with other anterior segments surgeries: Two targets with one shot (Video)

**DR. R. JANANI**

- Surgical management of third nerve palsy, a comparison of lateral rectus deactivation combined with medial rectus resection versus medial rectus fixation to medial palpebral ligament (Free paper)

- A rare case in a child with mild trichothiodystrophy associated with ERCC2 gene (E-Poster)
- Help Me Train: Squint surgery simulation model (Video)

**DR. ANUPAMA JANARDHANAN**

- Customised Augmented Kestenbaum – Anderson surgery: A novel technique for infantile nystagmus with large abnormal head posture! (Poster)
- Clinical characteristics, visual outcome and a new classification of pediatric posterior polar cataracts
- Skew deviation with internuclear ophthalmoplegia post covid vaccination: A rare case report (E-Poster)

**DR. A. FATHIMA**

- Hidden Surprise: Management of a case of Retroflexion of Iris (Video)
- Long term outcome of modified Capsular Tension Ring fixation (mCTR) and IOL placement among paediatric patients (E-Poster)
- Refractive error profile and influencing factors among siblings (E-Poster)

**DR. SASIKALA ELIZABETH**

- Paradigm shift in the prevalence of new onset childhood myopia: A study from a tertiary eye institute in South India (Paper)
- Analysis of identification sources, referral patterns, and clinical profiles of pediatric cataract patients at a Tertiary Eye Care Hospital (Paper)
- The journey of the child with iris cyst: A case study (Video)
- Surgical management bilateral sixth nerve palsy: A case report and surgical technique demonstration (Video)

**DR. AMRUTHA SINDHU**

- Clinical profile and visual outcome of paediatric optic neuritis: Case series (Free paper)

**DR. SATHYA T RAVILLA**

- Innovations that make paediatric eye exam: A Disney experience (Video)
- Video kiosk: New flanged technique for Iridodialysis repair

**DR. DIVYA SHENOY**

- Understanding dissociated horizontal deviations (Video)
- Spectrum of eye disorders between 0-3 years age group (E-Poster)

**DR. SARANYA SETTU**

- The magic of Faden has not faded yet: An effective approach in incomitant strabismus (Video)
- A retrospective comparison between Sanders-Retzlaff-Kraff II and Barrett II universal formula in children 9-16 years of age with developmental cataract (Poster)
- Tale of two curves: Keratoconus and posterior lenticonus in a child (E-Poster)

**DR. AKILA**

- Surgical outcomes of exotropia with high myopia: A retrospective study (Poster)
- Double surprise in a case of double elevator palsy (E-Poster)
- Duane's retraction syndrome with Retinitis Pigmentosa: A rare atypical association (E-Poster)
- Pseudo iris cyst in traumatic cataract: A surprise decoded by UBM (Video)



Dr. R.D. Ravindran presenting a talk at the Vision 2020 conference



Aravind staff members at the 18th edition of Vision 2020: The Right to Sight-INDIA

### 18<sup>th</sup> edition of Vision 2020: The Right to Sight India National Conference

Punjab, 6-7 July 2024

#### DR. R.D. RAVINDRAN

- Prevalence of cataract in Indian population & management strategies
- Role of leadership in improving surgical outcome
- Minimising environmental footprint of eye care & surgery

#### R.D. THULASIRAJ

- Role of right pricing- capacity to pay in the catchment and willingness to pay

#### DHIVYA RAMASAMY

- Competency-based approach to staffing vision centres
- Costs and profitability

#### MOHAMMED GOWTH

- Real-time learning from teleophthalmology with slit-lamp camera

#### CHANDRAVADHANA H

- Sharing the experience of mentoring an eye hospital to get NABH entry level accreditation

#### D. RANITHA GUNA SELVI

- Greening healthcare: Environmental impact reduction via vision centres

#### RAJESH

- Smart vision glasses: Adding value to the visually impaired

#### SARAVANAN

- Hospital cornea retrieval programme: Integrating with all levels of health care

#### JERROME SELVARAJ

- Impact of community-based eye health education programme on service uptake and specialty diagnosis in Vision Centres: Arogya Pariwar programme

- Impact of pupillary dilation on retinal image quality and AI-based early detection of diabetic retinopathy among elderly patients (Paper)

#### VINOTH KUMAR RAJENDRAN

- Annual proportion of eye injury patients presenting at vision centres: A retrospective analysis in a southern Indian population (Paper)
- Impact of vision centres on achieving universal eye health coverage: prevalence, coverage, and utilisation of eye care services in Southern India (Paper)

#### M. VIKKY KUMAR

- Comparison of efficacy of vision centre and comprehensive eye camps in detection of specialty cases (Paper)

#### AKSHAYA R.B.

- Improving patient communication through Dhrishti mobile application system (Paper)
- Use of glasses without bandage post phacoemulsification cataract surgery (Paper)

#### S. RAJESH

- Impact of same-day cataract surgery procedures on the acceptance rate of cataract surgery at Aravind vision centres, Chennai (Paper)

#### RIYAH JAITIKA

- Analysing the safety and efficacy of a stereo coaxial illumination device for cataract surgeries (Paper)
- Patient Safety Daily Meet (PSDM): Proactive approach towards ensuring patients safety (Paper)

#### REVATHY KANNADASAN

- Introducing surgery prediction vs. actual analytics in eye care services (Paper)

- To develop operational efficient eye care model with developing an in-house training model for allied eye care personnel (AOP) (Poster)

#### JEYASEELI FLORA H

- Inclusive screening for children with multiple disabilities: An outreach model (Paper)

#### P HINDUJA

- Cataract counselling enquiry desk to improve patient's surgery acceptance rate (Paper)

#### MURUGARAJ G

- A study of patient digital usage habits, access, and attitudes at a high-volume eye hospital in Southern India (Paper)

#### UDAYAKUMAR B

- Factors affecting follow-up adherence of glaucoma patients (Paper)

#### SANTHOSHA GANESH

- Enhancing the performance and efficiency in glaucoma clinic: Application of lean management principle (Paper)
- Factors influencing non-adherence of follow-up in childhood glaucoma (Poster)

#### SUMATHY

- Comprehensive preventive eye care screening for patient relatives: A catalyst for early ophthalmic disease detection (Paper)

#### D. RANITHA GUNA SELVI

- Instrumenting safe intraocular lens implantation (Paper)

#### DHIVYA RAMASAMY

- Patient enquiries provide valuable insight (Poster)





Dr. Usha Kim at the 34<sup>th</sup> Annual Conference of the OPAI



Dr. S.R. Rathinam at the Annual Conference of the Uveitis Society of India



D. Saravanan during the panel discussion at the World Eye Bank Symposium

#### RAICHEL R

- Incremental innovation in operation theatre (Poster)

#### UDAYAKUMAR B

- Salience effect of clinical interventions and disease progression in follow adherence of patients (Poster)

**14<sup>th</sup> National Conference on Cornea and Eye Banking: Annual Convention of Eye Bank Association of India (EBAI)**  
Bhubaneswar, 14-15 September 2024

#### D. SARAVANAN

- Management: Key to successful eye banking
- Identifying opportunities and developing projects in eye banking (Team Lead)
- Eye bank management and development strategies (Convenor)
- Common challenges in eye banking, including issues related to Human Corneal Retrieval Programmes (HCRP), HR challenges, and the risks of over-reliance

on HCRP, while exploring alternative sources of eye donations (Moderator)

#### 25<sup>th</sup> Annual Conference of the Uveitis Society of India (USICON)

Chandigarh, 4-6 October 2024

#### DR. S.R. RATHINAM

- Are the infections new or the manifestations new? and How can I forget these cases?
- 25 years of USI (Video)
- Dr. G.V. Endowment Award & Prof. Amod Gupta Young Researcher Award ceremonies and the Silver Jubilee Symposium II: Presidents' Symposium (Chair)

#### Eye Bank development in Indonesia Hospital, at the RSCM Kirana Hospital, Jakarta

Indonesia, 24<sup>th</sup> September 2024

#### D. SARAVANAN

- Setting up an eye bank and how to maintain productivity

- How to do ideal training for eye bank technicians & counsellors (Round table discussion)

#### World Eye Bank Symposium 2024

Indonesia, 25<sup>th</sup> September 2024

#### D. SARAVANAN

- Managing the New Generation of Eye Banking Staff

#### 34<sup>th</sup> Annual Conference of the Oculoplastics Association of India (OPAI)

Jaipur, 27-29 September 2024

#### DR. USHA KIM

- Optic nerve sheath decompression
- Oncology (Chair)
- Genetics in Ocular Oncology

#### DR. RAMA VADAPALLI

- Our approach to orbital wall Fractures

#### DR. BHARADWAJ LAKKIMSETTY

- A sail through Retinoblastoma: Challenging cases

Dr. Kiran Bedi, lighting the lamp at the conference



At the 33<sup>rd</sup> Annual Conference of Glaucoma Society of India – GlaucoCherry



### 33<sup>rd</sup> Annual Conference of Glaucoma Society of India – GlaucoCherry

Pondicherry, 27-29 September 2024

**DR. S.R. KRISHNADAS**

- Mitomycin C injectable Vs Sponge application (Presentation)
- Session on Glaucoma Medley (Chairperson)
- Session on Glaucoma Pitch (Judge)

**DR. GEORGE VARGHESE PUTHURAN**

- All About Tubes (Chairman of IC)
- Preventing & Managing Tube Retraction & Tube Exposure
- Surgical treatment in glaucoma (Co-Chairman in Plenary VI)
- How to conduct a safe AADI surgery?
- 10 tips for glaucoma implant surgery

**DR. MANJU R. PILLAI**

- Paediatric glaucoma for comprehensive ophthalmologists (Co-Instructor)
- Glaucoma medley (Talk at Glaucoma Screening & Telemedicine" in Plenary VIII)

**DR. R. SHARMILA**

- Short eyes and glaucoma
- MPTSC in paediatric (Poster)
- Wetlab instructor for tubes

**DR. VIJAYALAKSHMI A.**

- Incidence etiology and risk factors for tube explantation in patients undergoing patch: Free glaucoma drainage device (Free paper)
- Wetlab instructor for tubes



Scientists, faculty, and scholars from AMRF at the 30<sup>th</sup> Annual Meeting of ARVO-India 2024

### 6<sup>th</sup> Annual Conference of Indian Neuro Ophthalmology Society (INOS)

Chennai, 21-22 September 2024

**DR. APARAJITHA BONDILI**

- Etiology of acute loss of vision in patients presenting to the Neuro-Ophthalmology department at a tertiary eye care centre (Poster)  
Co-authors: Dr. Kowsalya A., Dr. Mahesh Kumar, & Dr. Smrithi Sony Thampi

**PRIYADHARSHINI P.V.**

- A rare manifestation of third nerve palsy (Physical Poster)  
Co-authors: S. Sangeetha, Dr. Mahesh Kumar, & Dr. Kowsalya A.
- An unusual case of Pituitary Macroadenoma presenting with unilateral disc edema (Physical Poster)

**NIVETHA A., DR. MAHESH KUMAR, & DR. KOWSALYA A.**

- An unusual presentation of cortical visual impairment (Physical Poster)

- A variant of chronic progressive external ophthalmoplegia (Physical Poster)

**NAVEENA M., DR. MAHESH KUMAR, & DR. JAYASRI K.N.**

- Unraveling the unusual: Colloid cyst manifesting as third nerve palsy (Physical Poster)
- WEBINO exposed: A classic case of brainstem infarct with distinctive ocular manifestations (Physical Poster)

### 30<sup>th</sup> Annual Meeting of Indian Eye Research Group (IERG) - ARVO-India Chapter 2024

New Delhi, 28-29 September 2024

**DR. P. SUNDARESAN**

- Molecular genetics in ocular diseases: Laneways for personalised medicine (Dr. D. Balasubramanian Oration Lecture)

**DR. S. SENTHILKUMARI**

- MicroRNA-based therapeutics for steroid-induced ocular hypertension/glaucoma: Insights from Ex Vivo studies of human eyes (Keynote address)

**DR. ANWAR AZAD**

- Challenges in retinal organoids and potential advancements

**PROF. K. DHARMALINGAM**

- Proteomics of ocular extracellular vesicles

**SARASWATHI**

- Genomic and transcriptomic profiling identifies distinct molecular signatures in recurrent ocular adnexal B-Cell lymphoma (Oral Presentation)

**DR. SWAGATA GHOSH**

- Corneal transcriptomic signatures in fusarium keratitis patients with distinct disease trajectories: Deciphering

### Aravind doctors at the 6th Annual Conference of the INOS 2024





protective and pathogenic host responses (Oral Presentation)

#### DR. DAIPAYAN BANERJEE

- Epigenetic alterations in pterygium: Genome-wide methylation profiling reveals potential oncogenic pathways (Oral Presentation)

#### SETHU NAGARAJAN

- Patient-derived three-dimensional spheroid culture: a promising model for drug screening in retinoblastoma (Poster)

#### KANTHIMATHI

- Integrative metadata analysis and validation of putative markers for adult retinal pigment epithelial stem cells (Poster)

#### THUSMITHA

- Decline in YAP nuclear expression in lens epithelium of cataractous donors compared to healthy donor lenses (Poster)

#### ISWARYA

- Trabecular meshwork stem cell exosomes: Identifying the cargo and functional efficacy for a cell-free therapy for glaucoma (Poster)

#### KEERTHANA

- Characterisation of pearl/regenerative posterior capsular opacification (Poster)

#### PRAVEEN KUMAR

- Identification of human corneal miRNAs in the disease severity of pseudomonas aeruginosa keratitis (Poster)

#### SHIVA SHANKARI

- Clinical profile of neuro-ophthalmological conditions at a tertiary eye care centre: A six-year retrospective study (Poster)

#### HARIHARAN

- Proteomic analysis of extracellular vesicles from saprophytic and clinical isolates of *Aspergillus Flavus*: A comparative study (Poster)

AADHITHIYA T. G. served as an observer

#### American Academy of Ophthalmology (AAO) Annual Meeting 2024

Chicago, 18-21 October 2024

#### THULASIRAJ RAVILLA

- Aravind achievements in carbon reduction
- The vital economic impact of vision as a "Best Buy" in Global Development Efforts

#### DR. R. MEENAKSHI

- Unique considerations in paediatric keratoconus (IC)
- Non-surgical visual rehabilitation in paediatric keratoconus

#### DR. REVATHY

- CXL in Pediatric KCN (IC Co-instructor)
- Therapeutic penetrating keratoplasty (IC Co-instructor)
- "Grand rounds with infectious keratitis Experts: What you should know?" (Co-instructor and Panel)
- A comparative study of long-term efficacy and safety of Collagen Cross Linking (CXL) in paediatric keratoconus Vs adults (Poster)

#### DR. SHARMILA

- Combined Trab with SICS and lens induced glaucoma (Paper)
- Surgical management: Tips and tricks in Nanophthalmos (IC)

#### DR. V. ANITHA

- Role of PKP in paediatric keratoconus (IC)
- Infectious Keratitis (Instruction Course)
- Corneal Neurotisation (Skill Transfer course)

#### DR. SEEMA PRABHU

- Capsulotomy/Prolapse/Delivery
- Filling the refractive gap in Endothelial Keratoplasty: The piggyback way (Video)

#### DR. LOKESHWARI

- MSICS Wetlab (Microsurgery Instructor)

#### DHIVYA RAMASAMY

- Environmental sustainability in eye care
- Large volume, high quality, affordable and sustainable eye care delivery for all

#### 17<sup>th</sup> Congress of the Asia-Pacific Vitreo-Retina Society (APVRS)

Singapore, 22-24 November 2024

#### DR. R. RAM SUDARSHAN

- When the clot gets tough the cutter gets moving (Video)
- Clinical, microbiological profile & treatment outcomes of traumatic endophthalmitis in paediatric population in South India (E-Poster)
- Traumatic Endophthalmitis following injury by freshwater fish: A rare case report
- SFIOL made easy (Video – Co-author)

#### DR. ASWIN PR

- SFIOL: From planning to perfection (E-Video)

Members from Aravind at the Annual Meeting of American Academy of Ophthalmology





Dr. Aswin PR and Dr. R. Ram Sudarshan at the 17<sup>th</sup> Congress of the APVRS

- Retreatment in ROP following intravitreal anti-VEGFs (E-Poster)
- DR. K. NARESH BABU**
- Air perfused dissection of posterior hyaloid & tractional membrane complex in diabetic vitrectomy: A breath of fresh air (Video)
- The unfurling technique: Surgically induced retinal detachment enhancing anatomical & functional outcome in grade 3 epiretinal membrane (Video)

**DR. HAEMOGLOBIN**

- Perfluorocarbon Liquid (PFCL) migration in an attached retina

**DR. ANAND RAJENDRAN**

- Diabetic Retinopathy Session (Faculty)
- Surgical approaches for diabetic retinopathy

Dr. Gowri Priya and Sneha at the ISSCR-SCSS Singapore International Symposium



At the 33<sup>rd</sup> Annual Conference of Vitreo Retinal Society-India (VRSI)

**DR. CHAINANI RITESH MOHAN**

- APMPPE in South Indian patients: A case series (E-Poster)
- Bacillary layer detachment in a case of APMPPE (E-Poster)

**DR. SAVITHRI**

- Unravelling the mysteries of atypical uveal effusion syndrome associated with different aetiologies (Poster)

**ISSCR - SCSS Singapore International Symposium on "Stem Cells in Tissue Maintenance, Repair, and Aging**  
Singapore, 11-13 December 2024

**DR. GOWRI PRIYA CHIDAMBARANATHAN**

- Accumulation of autophagosomes in the central zone of human lens epithelial cells: A study on the biology of adult stem cells in age-related cataract pathogenesis

**SNEHA**

- MiRNAs regulating human trabecular meshwork stem cell maintenance and their decline with aging

**33<sup>rd</sup> Annual Conference of the Vitreo-Retinal Society of India (VRSI)**

Assam, 6-8 December 2024

**DR. R. KIM**

Introduction of Nataraja Pillai  
Oration Awardee

- Integrating AI to leverage data analytics in EMR
- PAT Survey Session (Wise Council)
- J M Pahwa Session (Wise Council)
- AI in Retina Session (Wise Council)

**DR. NARESH BABU**

- Anatomical and functional outcome of short-term perfluorocarbon liquid

endo-tamponade for Closed funnel  
rhegmatogenous retinal detachment

- Air perfused dissection of posterior hyaloid and tractional membrane complex in diabetic vitrectomy: A breath of fresh air (Videos)
- Unspooling a closed funnel: Short-term perfluorocarbon liquid endo-tamponade in Rhegmatogenous retinal detachment (Videos)
- ONH & Macular surgeries (Wise Council)
- Interesting cases (Moderator)

**DR. RENU P. RAJAN**

- A safer transscleral approach to remove Subretinal Napkin Ring in proliferative vitreoretinopathy (Videos)

**DR. MUTHUKRISHNAN**

- Talk / Video based complications session (Moderator)

**DR. SIVADARSHAN**

- Following the footsteps of my mentor: Key insights
- A curious tale of toxic posterior segment syndrome (Poster)
- Sympathetic ophthalmia in the era of Micro incision vitrectomy surgery (E- Poster)

**DR. PRITHVIRAJ**

- Surgical outcomes in idiopathic epiretinal membranes: Insight into the ectopic inner foveal layer classification scheme

**DR. BHAVANI**

- Clinico-Microbiological profile and treatment outcomes of endophthalmitis following intravitreal injection: A retrospective analysis of 27 eyes (E -Poster)



**DR. ATHUL S PUTHALATH**

- Clinical presentation, treatment & outcomes of paediatric endogenous Endophthalmitis: A 10-year retrospective analysis of 32 cases from South India
- 3-D printed Lens Attachment Guard (LAG) series: A novel protection system for lenses used in ophthalmology

**DR. SYED MOHIDEEN ABDUL KHADAR**

- J M Pahwa Session (Moderator)

**DR. RAM SUDARSHAN**

- SFIOL made easy (E-Video)
- Two simple and useful lessons, for all vitreo-retina surgeons (E – Video)

**DR. ASWIN PR**

- SFIOL made easy (E-Video)
- Diabetic vitrectomy for beginners (E-Video)
- Clinical spectrum, optical coherence tomography findings and management outcome of post-fever retinitis cases (Poster)
- Who is the culprit? IJT or PDR (E-Poster)

**DR. SWANAND PRADHAN & DR. ASWIN PR**

- Laser retreatment in Retinopathy of Prematurity (ROP) after Intravitreal Anti – VEGF: A retrospective study (E-Poster)

**DR. AKHILA KUTUMBAKA**

- Exudative retinal detachment: An uncommon presenting aspect of aggressive retinopathy of prematurity (Free Paper)
- Diabetic Vitrectomy for beginners (E-Video)

**DR. RAKSHA PALLED**

- Clinical spectrum, optical coherence tomography findings and management outcome of post-fever retinitis cases (Poster)

**DR. AARTHY S**

- White dot syndrome mimicking Choroiditis (E -Poster)

**DR. JEET PATEL**

- Who is the culprit? IJT or PDR (E-Poster)

**DR. MANAVI D. SINDAL**

- PAT Survey (Moderator)
- PCV (Wise Counsel)
- The Hyphema Dilemma: Unveiling chronic myeloid leukemia behind diabetic retinopathy
- Enhancing patient follow-up in Ophthalmology: Insights from the SHARP project (E-Poster)

- From eyes to minds: Linking acute CSCR with anxiety levels (E-Poster)
- A rare alliance exploring the intersection of Pantothenate Kinase Associated Neurodegeneration (PKAN) and retinitis pigmentosa (E-Poster)
- Ischemia, inflammation or immune reaction: Enigmatic neovascular glaucoma with indeterminate retinal pathology (E-Poster)
- Mastering PVD induction in challenging retinal surgery: Tips and techniques (Video)
- Mastering macular whole surgery: Essential techniques for success (Chief and presenting author)

**DR. AKSHAT KOTHARI**

- Polypoidal Choroidal Vasculopathy (PCV) (PAT Survey)
- A rare alliance exploring the intersection of Pantothenate Kinase associated neurodegeneration (PKAN) and retinitis pigmentosa (E-Poster)
- Ischemia, inflammation or immune reaction: Enigmatic neovascular glaucoma with indeterminate retinal pathology (Co- author – E- Poster)
- Bilateral bear traces: A retinal odyssey (Co- author – E- Poster)
- Tortuous surprise in an eye with microcornea (Co- author – E- Poster)
- Evolution of retinal injury caused by direct exposure to industrial laser (Co-author – E- Poster)

**DR. PRIYANKA MAHENDRAKAR**

- Diabetic Retinopathy (PAT Survey)

- Ischemia, Inflammation or Immune reaction: Enigmatic neovascular glaucoma with indeterminate retinal pathology (E-Poster)
- Evolution of retinal injury caused by direct exposure to industrial laser (E-Poster)

**DR. KARTHIK SRINIVASAN**

- What went wrong /was it me or the disease: The whole point – What went wrong?
- AI in Retina

**DR. RITESH CHAINANI**

- Diagnostic and therapeutic challenges in a case of post fever retinitis

**DR. YESHWANTH KUMAR**

Case presentation in ocular oncology symposium

**DR. KUNDURU SRUTHI**

- Testosterone and vision: The hidden threat of central retinal artery occlusion (Poster)
- The aftermath: Central retinal artery occlusion and scleral buckel surgery (Poster)

**DR. HARSHA BHAMIDIPATI**

- Beneath the surface case series on subretinal abscess management (Poster)
- Seeing red rare case of bilateral vitreous hemorrhage in terson syndrome (Poster)

**12<sup>th</sup> Annual National Conference of the Cornea Society of India - KERACON 2024**

Bengaluru, 6-8 December 2024

**DR. VENKATESH PRAJNA**

- Symposium: Technology (Panellist)
- Application of AI for corneal infections

Dr. Tejaswi Prasad, Dr. Ashwin and Dr. Venkatesh Prajana at the 12<sup>th</sup> Annual National Conference of the Cornea Society of India - KERACON



**DR. TEJASWI PRASAD**

- Insights into rarity: Conjunctival juvenile Haemangioendothelioma: Clinical perspectives (Poster)
- Paediatric Keratoconus: Visual outcome and predicting factors for the efficacy of standard Vs Accelerated Collagen Cross-Linking (CXL) (Poster)
- Genome Wide DNA methylation analysis reveals epigenetic dysregulation in pterygium (E-poster)

**DR. JAYANTHI**

- Keratonus and visual performance different contact lense (E-Poster)

**DR. DEEKSHA BEKAL**

- Understanding the timeline: Implications for follow up came in post – lasik (Free paper)

**DR. INDULEKHA**

- Effectiveness case of PTK in case of accurrent RBD post –PK (Poster)

**DR. SHREYA PODDER**

- Decipluring OCP: A retrospective study (Free paper)

**DR. DIVYA**

- Near live surgery 2 -1100 corneal transplantation (Panellist)
- Fuchs Dystrophy (Co-ordinator)
- DSO/DWEK in Fuchs: Current status and personal experiences
- Planning cataract surgery post-keratoplasty

**DR. NATHIYA**

- IFS-Decoded (Video)
- A dual case report highlighting rare presentations of dermoid (E-Poster)

**DR. ANUJA**

- Pack – CXL in advanced fungal keratitis: A comparative study (Paper)



Thulisiraj Ravilla at the Annual Meeting of Equitable Healthcare Access Consortium

- Retrospective study on OSSN in a tertiary eye care (Paper)

**DR. AVDHOOOT**

- Pythium keratitis (Paper)
- Rare OSSN – PCG (Poster)

**International Society of Ocular Oncology (ISOO) 2024 Conference**

Goa, 3-7 December 2024

**DR. USHA KIM**

- Our sequential strategy for rapid molecular diagnosis of retinoblastoma
- Retinoblastoma (Chairperson)
- E-Posters with pre-recorded narration genetic testing: A leap forward in retinoblastoma management (Presenter)
- Orbital tumours and others: e-posters with pre-recorded narration clinical and demographical analysis of ocular adnexal lymphoma (Presenter)
- Eyelid tumours and orbital tumours e-posters (Judge)
- Orbital tumours – Videos (Judge)

**DR. ABHISHEK DAS**

- Intra-arterial chemotherapy for retinoblastoma: A single centre study in South India, our experience (Poster Podium – Paper)
- Rb or no Rb? (Challenging case presentation)
- Concurrent optic disc hemangioma and rathke's cleft cyst: A multimodal imaging approach (E-case with narrative)

**Equitable Healthcare Access Consortium (EHAC) Members Meeting**  
Hyderabad, 6-7 December 2024

**THULASIRAJ RAVILLA**

- Sustainability of equitable organisations

**Drishti 2024 - 51<sup>st</sup> Annual Conference of the Kerala Society of Ophthalmic Surgeons (KSOS)**

Kochi, 29-30 November 2024

**DR. MANJU R PILLAI**

- Challenging angle closure disease presentations

**DR. GANESH V RAMAN**

- What is new in glaucoma?
- IC – Fundamentals of GATT
- IC – Anomalous Optic Disc
- IC – Minimally Invasive Glaucoma Surgery
- IC – MIGS in PACG
- Dr. K.C. Sankara Menon FP Award Session (Judge)
- TACO Poster Award (Judge)
- Padma Bhushan Dr. P Siva Reddy Award Session (Judge)
- Dr. Noel Moniz Memorial Anterior Segment Free paper session (Judge)

Dr. Ganesh V Raman and Dr. Manju R Pillai at Drishti 2024







Aravind doctors at the National Conference of NCNO 2025



Dr. Naresh Babu at the Delhi Retina Forum - Winter Meet 2025

- Dr. K.G. Ramachandran memorial Free Paper (Judge)
- Dr. K. S. Subramanian PG Free Paper Award Final (Judge)

**WHO-SPECS Strategy Planning Meeting**  
Assam, 21-22 November 2024

Thulasiraj Ravilla, Director Emeritus, LAICO & Director of Operations, AECS, participated in the WHO-SPECS Strategy Planning Meeting held in Guwahati, Assam.

**3<sup>rd</sup> National Conference of Neuro-Ophthalmology (NCNO 2025)**  
Chandigarh, 7-9 February 2025

**DR. KOWSALYA AKKAYASAMY**

- Identifying and overcoming barriers to neuro-ophthalmological follow up care through telemedicine enabled vision centres: A comprehensive analysis of patient adherence and demographic influences (Paper)

**DR. SUDHA K S**

- Insights into isolated fourth nerve palsy clinical profile, Etiologies, recovery outcomes in a tertiary eye care centre (Paper)  
Co-authors: Dr. Jayasri K N, Dr. Mahesh Kumar S, Dr. Kowsalya A

**DR. JAYASRI K.N**

- A case series of Tuberous sclerosis with Neuro-ophthalmic manifestations: Current perspectives (Paper)  
Co-authors: Dr. Vijayaprabha, Dr. Maheshkumar S, Dr. Kowsalya A

**DR. A. BALRAJ**

- Sellar Plasmacytoma: A rare case report (Paper)

**UK Paediatric Glaucoma Society Annual Meeting - UKPGS 2025**

London, 24<sup>th</sup> January 2025

**DR. MANJU R. PILLAI**

- GAPO syndrome (Poster)
- An unusual case of ocular hypertension following steroid treatment in Kikuchi-Fujimoto disease (Poster)

**EuroVersion – India Delhi Retina Forum (DRF) Winter Meet 2025**

New Delhi, 19<sup>th</sup> January 2025

**DR. NARESH BABU**

- Intravitreal methotrexate as an adjuvant in vitrectomy in cases of retinal detachment with proliferative diabetic retinopathy (Video)

**DR. ANISH**

- Batting the parasite: Surgical management of intravitreal cyst (Video)

**DR. RASHMI NAGAR**

- Air perfused vitrectomy in traumatic vitreous haemorrhage (Video)

**DR. JAWAHAR SATYA BABU**

- Managing keratitis and endophthalmitis: A dual infection challenge (Video)

**World Cornea Congress (WCC) IX**

USA, 20 - 23 March 2025

**DR. N. VENKATESH PRAJNA**

- Management of fungal keratitis: Rose Bengal Electromagnetic Activation with Green Light for Infection Reduction (REAGIR)

## Custom Designed Courses

In addition to the structured short term and long term courses, Aravind and LAICO also offer learning opportunities to meet with specific needs of individuals and organisations. These requests often take the form of observation, some hands-on training and spending time in specific clinical or administrative areas. The duration of such learning, actual dates and costs vary from one request to another. This year, 36 people from various countries, including India, Bangladesh, Ethiopia, Ghana, and Nepal, participated. The participants attended their training at different institutions - Aravind Eye Hospitals in Madurai, Coimbatore, Pondicherry, Tirunelveli, and at LAICO, based on their individual placements.

## ARTICLES PUBLISHED IN INDEXED JOURNALS

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## Consultancy and Capacity Building

*To expand Aravind's eye care services to a wider community, LAICO continuously supports initiatives that enhance eye care delivery across the globe. During the past year, LAICO, as a WHO Collaborating Centre, conducted a two-day consultation focused on improving access to and the quality of eye care services. The consultation aimed to achieve the Effective Cataract Surgical Coverage (eCSC) and Effective Refractive Error Coverage (eREC) targets by 2030. LAICO initiated a five-year strategic planning exercise to set directions for the upcoming years. It is designed to guide its work across all key areas, including education, consultancy initiatives, Aurosiksha, and research.*

## Mentoring Initiatives

### Capacity building

As part of its capacity-building programme, LAICO partnered with the following three hospitals last year and conducted a vision-building workshop for them. A team from LAICO, comprising a senior faculty member and a doctor, completed situation analyses and needs assessment visits to each hospital to support their further development.

- Alwar District Hospital Eye Unit, Rajasthan  
R. Suresh Kumar, Senior Faculty, LAICO, and  
Dr. Shiv Kumar, Chief, Intraocular Lens & Cataract Services,  
Aravind-Tirunelveli
- Tamale Eye Hospital, Tamale, Ghana  
Syed Ali A, Senior Faculty, LAICO, and  
Dr. Vigneshwar, Medical Consultant, Aravind-Madurai
- Kabgayi Eye Unit, Kabgayi, Rwanda  
D. Yesunesan, Senior Faculty, LAICO, and Dr. Ashok  
Vardhan, Chief Medical Officer (CMO), Aravind-Tirupati

In addition to this, onsite follow-up visits were conducted at the following engaged hospitals during the year.

- Sankara Eye Hospital, Berhampur, Odisha  
Syed Ali A and Dr. Venkata Sudheer, Medical Consultant,  
Aravind-Tirupati
- Rotary Hooghly Eye Hospital, Hooghly,  
West Bengal  
D. Yesunesan, and Dr. Datta, CMO, Aravind-Theni
- Alakh Nayan Mandhir Eye Hospital,  
Udaipur, Rajasthan  
D. Yesunesan, and Dr. Rodney Morris, Medical Consultant,  
Aravind-Coimbatore
- Trilochan Netralaya-Sambalpur, Odisha  
R. Suganya, and Dr. Harini Krishna, Medical Consultant,  
Aravind-Kovilpatti

*Dr. Harini Krishna, and Suganya during their visit at the Trilochan Netralaya, Jharsuguda, Odisha*



*Dr. Ashok Vardhan at the Kabgayi Eye unit, Kabgayi, Rwanda*

- MGM Eye Institute-Raipur, Chhattisgarh  
Syed Ali A, and Dr. Preeti Mohanty, Medical Consultant,  
Aravind-Tirupati

### LEAP collaborative series

#### Ensuring quality standards

In February 2024, LAICO launched the second batch of the LEAP NABH Collaborative Series to help hospitals achieve NABH Entry-Level Accreditation. Five hospitals enrolled in this 12-month programme. By January 2025, four hospitals had successfully achieved NABH Entry-Level Accreditation. An onsite visit was conducted to the following LEAP partners to guide the hospital through the NABH application process and to support them in preparing for assessment.

- Jagannath Netralaya, Bhawanipatna, Odisha  
R. Suresh Kumar, Senior Faculty, LAICO, and  
Dr. Balaji T, Medical Consultant, Aravind-Theni

#### Enhancing cataract surgical outcomes (ECSO)

LAICO launched the ECSO LEAP series in October 2023 with the objective of supporting hospitals in

achieving 6/12 or better vision outcomes in 90% of cataract-operated eyes at final follow-up. Eleven hospitals were enrolled in this 12-month programme. Mentoring teams from Aravind Eye Hospital and LAICO helped the hospitals implement improvements in biometry, sterilisation, and other quality-related processes. During the collaborative period, the participating hospitals collectively performed 42,230 cataract surgeries and achieved 6/12 or better outcomes in 89% of the operated eyes.





*Dr. Balaji during the visit to Lions Eye Hospital, Gahaziabad*



*Dr. Anitha and Mohammed Gowth with Nandadeep Eye Hospital team, Sangli, Maharashtra*

### Closing the loop for cataract and refractive error

LAICO launched a collaborative series aimed at increasing the proportion of patients receiving cataract and refraction services within hospital patient volumes over a 12-month period. The overall target is to achieve an advice rate of over 90% for cataract and refractive errors, with acceptance rates of 75% for cataract surgery and 90% for spectacles. The series began in March 2024, with 11 hospitals enrolled. The first learning session was conducted virtually in May 2024. Hospitals were engaged through virtual calls and performance has been monitored on a monthly basis.

**The following hospitals were visited under this LEAP programme**

- Nandadeep Eye Hospital, Sangli, Maharashtra  
Mohammed Gowth A, Senior Faculty, LAICO, and Dr. G. Anitha, Medical Consultant, Aravind-Tuticorin
- M.N.Eye Hospital, Tondiarpet, Chennai  
B. Udayakumar, Senior Faculty, LAICO and Dr. Harini Krishna
- Dr. Ramana Raju's Vision Tree Eye Hospital, Visakhapatnam, Andhra Pradesh  
K.M. Sashipriya, Senior Faculty, LAICO, and Dr. Venkata Sudheer, Medical Consultant, Aravind-Tirupati
- Sitapur Eye Hospital, Uttar Pradesh  
K.M. Sashi Priya and Dr. Vivekanandhan, Medical Consultant, Aravind - Tirunelveli
- Thulsi Eye Hospital, Nashik, Maharashtra  
R. Suresh Kumar, Gopinathan, and Dr. Jebin Brayan, Medical Consultant, Aravind-Coimbatore
- Trilochan Netralaya, Jharsuguda, Odisha  
R. Suganya and Dr. Harini Krishna

### Consultancy Projects

#### Capacity Building for Lions Eye Hospitals: A Three-Year Initiative to Strengthen Eye Care Services

In December 2024, the Lions Council of India, with support from the Lions Clubs International Foundation (LCIF), launched a three-year capacity-building project to strengthen five Lions Eye Hospitals in India. The objective was to enhance their ability to provide comprehensive eye care services tailored to the needs of their service areas. The project also leverages the Lions Club network to improve community outreach and awareness, thereby strengthening service delivery.

LAICO is the technical partner for this initiative and is responsible for conducting needs assessment visit facilitating strategic planning workshops, and continuously monitoring the hospital teams. Needs assessment visits for all five hospitals listed below were conducted in January and February 2025, and were followed by a strategic planning workshop in March 2025. Each hospital developed a detailed action plan to meet the project's goals. This project served as a pilot that can be scaled to other Lions hospitals in the future.

- Chikalthana Lions Hospital, Aurangabad  
K.M. Sasipriya, and Dr. Kunal A. Mandlik, Medical Consultant, Aravind-Pondicherry
- Gauhati Lions Eye Hospital, Assam, Guwahati  
Mohammed Gowth A, and Dr. Satheesh Devarajan, Medical Consultant, Aravind-Salem
- Lions Eye Hospital, Ghaziabad, New Delhi  
Syed Ali A, Ragul, Faculty Associate, LAICO, and Dr. Balaji Velayuthan
- Raniganj Lions Eye Hospital, West Bengal  
R. Suresh Kumar and Dr. Muralikrishnan, Medical Consultant, Aravind-Udumalpet



*Dr. Vigneshwar and Syed Ali A. during their visit at the Northern Community Eye Hospital, Tamale, Ghana*

- R.R. Lions Eye Hospital, Nidadavole, Andhra Pradesh
- D.Yesunesan, R. Suganya, and Dr. S. Padmavathy, Medical Consultant, Aravind-Tirunelveli*

### Strengthening Public-Private Partnerships for Eye Care Delivery

The project aims to increase the cataract surgical rates (CSR) in underserved districts of India through proactive interventions implemented in a structured “project mode”.

In partnership with Sightsavers, LAICO has identified four districts with CSR levels significantly below the national average of 6,000. LAICO is working with four NGO eye hospitals and connecting them with government hospitals and blindness control societies in their districts through public-private partnerships. This collaboration bridges service delivery gaps, optimizes resource use, and improves access to eye care..

*B.S. Ganesh Babu and Dr. Rekha with the Nirala hospital team, Gumla, Jharkand*



*R. Suresh Kumar and Dr. Muralikrishnan at Katihar Lions Eye hospital, Bihar*

Needs assessment visits in these districts were conducted in October and November 2024, followed by a strategic planning workshop in January 2025.

- Niral Eye Hospital, Gumla - Jharkhand  
*B.S. Ganesh Babu, Senior Faculty, LAICO, and Dr. Rekha, Medical Consultant, Aravind-Madurai*
- Lions Eye Hospital, Katihar, Bihar  
*R. Suresh Kumar, R. Suganya, and Dr. Narayanan, Medical Consultant, Aravind-Coimbatore*
- Jeevan Jyoti Eye hospital, Jhabua, Madhya Pradesh  
*D.Yesunesan and Dr. Shivkumar. A, Medical Consultant, Aravind-Tirunelveli*
- Sai Netra Mandir, Bhubaneswar, Odhisa  
*Syed Ali A and Dr. Naveen Radhakrishnan, Medical Consultant, Aravind-Pondicherry*
- Global Hospital, Sirohi, Rajasthan  
*Dhivya Ramasamy, Executive Director, LAICO*  
*R. Suganya, and Dr. Siva Shanmugam, Medical Consultant, Aravind-Chennai*

In addition, a follow-up visit was conducted to support and orient the wider hospital team and other stakeholders in the district.

- Nirala Eye Hospital, Gumla, Jharkhand, *B.S.Ganesh Babu*

### Cure blindness project - immersion programme

Teams from the Cure Blindness Project in Ghana and Ethiopia participated in an immersion programme on 29<sup>th</sup> August to 4<sup>th</sup> September 2024 at LAICO that focused on enhancing high-volume, high-quality cataract surgical programmes in Sub-Saharan Africa. A team from the Himalaya Eye Hospital in Nepal also participated. The programme provided an in-depth orientation to the Aravind model of eye care delivery and best practices for high-quality, high-volume cataract surgery.





*Dr. Naveen Radhakrishnan and A. Syed Ali with the Sai Netra Mandir team, Bhubaneswar, Odhisa*



*D. Yesunesan and Dr. Shivakumar with the Jeevan Jyoti Eye Hospital team, Jhabua, Madhya Pradesh*

## Teaching and Training

### Customised training in eye health advocacy & community mobilisation training

Organised by LAICO, the training programme included 15 participants from Tata Steel Foundation, Jharkhand, and Odisha on 5-10 December 2024. It featured classroom sessions covering topics such as global blindness, barriers in eye care delivery, common eye conditions, planning comprehensive eye screening camps in the community, community referral systems, and retinopathy of prematurity.

The participants attended a school screening camp, a community eye health education programme in a rural village, and a comprehensive eye screening camp. They also had the opportunity to observe preoperative procedures, postoperative examinations, and counselling sessions. Additionally, they were trained to develop health education materials and attended eye camp monitoring meetings. By the end of the training, participants had developed outreach strategies for their respective organisations, which they will implement upon returning to their locations.

### Onsite ophthalmic instruments maintenance training course

Three members from the Biomedical Engineering Department of Aravind-Madurai, conducted the onsite programme organised by Fred Hollows Foundation, New Zealand, and facilitated by Aravind Eye Care System, held at the Pacific Eye Institute, Suva, Fiji, on 18-22 November 2024. A total of 20 trainees from Fiji, Vanuatu, Solomon Islands, Tonga, Samoa, and Kiribati, participated. Several repaired pieces of equipment were available, which helped the facilitators provide both

theoretical knowledge and practical knowledge. A final assessment was conducted via a Google form, which revealed a significant increase in the trainees' confidence in handling ophthalmic instruments.

## Aurosiksha

During the last year, the Aurosiksha Learning Management System (LMS) played a key role in streamlining the delivery and management of AOP training across the network. Approximately 1,600 trainees were enrolled, with ten departments actively using the platform as part of the skill recertification initiative. In addition, 1,654 employees were onboarded for continuous skill development.

Significant progress was made in developing and publishing training materials. Resources for 18 new competencies were added to the Aurosiksha platform. Eleven online quizzes were introduced, each receiving over 600 responses on average, including participation from 40 countries. The weekly Siksha Bites microlearning series continued to engage learners through short, focused content on social media, with over 50 editions released. Six webinars focusing on topics relevant to AOP were also conducted, reaching participants in 38 countries.

Capacity-building efforts for AOP training were initiated under the SCB project and extended to Dr. Shroff's Charity Eye Hospital, Delhi and Arasan Eye Hospital, Erode. Workshops for skill mapping and competency-based curriculum development were conducted at these hospitals along with monthly calls and implementation visits. Both hospitals have successfully integrated the LMS into their training programmes, with positive feedback reflecting improved learning outcomes and enhanced clinical practices.

## October Summit

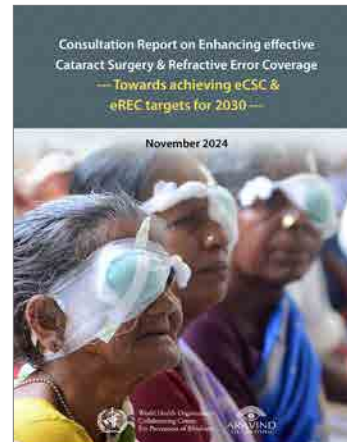
### CPE on Enhancing Hospital Management through Best Practices and Innovative Approaches

As part of the October Summit programme, LAICO conducted the Continuing Professional Education (CPE) programme for the alumni of the Hospital Administrators' Course on 4-6 November 2024. The programme aimed to provide a valuable platform for knowledge exchange, enabling participants to explore innovative approaches and best practices in hospital administration. The event brought together 27 participants from Nepal and various regions from across India, and 14 from Aravind.

### Consultation on Enhancing Effective Cataract Surgery and Refractive Error Coverage towards Achieving eCSC & eREC Targets for 2030

LAICO organised the two-day consultation programme organised on 29-30 November 2024, focused on addressing key challenges such as the diagnostic gap, compliance gap, and quality gap in cataract surgery and refractive error services. These efforts aimed to enhance access and quality in eye care services, contributing to achieving the Effective Cataract Surgical Coverage (eCSC) and Effective Refractive Error Coverage (eREC) targets by 2030. The event brought together 29 participants from across three countries, India, Nepal, and Bangladesh, representing a diverse group of stakeholders in eye care. Over the course of two days, participants engaged in plenary discussions and collaborative group work to develop strategies and actionable plans. The report of the consultation was shared with WHO headquarters and other stakeholders.

*At the consultation on Achieving eCSC & eREC Targets for 2030*



*A report shared with the participants and WHO Collaborative Centres*

## Health Service Research

As part of its ongoing efforts to strengthen research capacity in eye care institutions, the Research Division at LAICO conducted a two-day workshop on Research Data Management using REDCap software on 3<sup>rd</sup> and 4<sup>th</sup> January 2025. The workshop was well attended by participants from various eye hospitals across India.

The second of two Rapid Assessment of Avoidable Blindness (RAAB) surveys planned in Tamil Nadu was carried out in Kanniyakumari district from August to October 2024. As part of the survey, 4862 individuals aged 50 years and older from 86 locations were examined. Approximately 25% of those surveyed were found to require some form of eye care intervention and were referred to the nearest eye care facilities. The LAICO Journal Club, established to promote a research culture among non-clinical staff at Aravind, steadily expanded its reach, with increasing participation from external institutions both within India and abroad. Of the 48 sessions conducted over the past year, one-fourth were anchored by participants from outside organisations.







## Research

*Last year, AMRF led two significant projects supported by government funding agencies: one focused on developing predictive biomarkers for glaucoma, and the other on creating interventional approaches to treat glaucoma using extracellular vesicles. These initiatives resulted in remarkable advancements across several fields. Further, AMRF hosted the AMRF-Dartmouth Education and Research Conference, paving the way for collaborative studies and knowledge sharing between the two institutions. Several new programmes with substantial funding were also initiated during the year, ultimately benefiting patient care, treatment, and cure.*

## Molecular Genetics

Ocular genetics lab has been working on advanced molecular techniques to uncover the genetic factors influencing ophthalmic conditions. Currently, the focus is on Leber's hereditary optic neuropathy (LHON), Leber's congenital amaurosis (LCA), and Primary Open-Angle Glaucoma (POAG).

LHON is a maternally inherited mitochondrial disorder caused by mitochondrial DNA (mtDNA) mutations. To study this, at AMRF, genetic testing was performed in 30 new patients, and found mitochondrial mutations in 21 patients. In the remaining cases, mutations were found in some nuclear genes, revealing the significance of mito-nuclear genetic involvement in LHON pathogenesis.

LCA is a severe form of inherited retinal dystrophy (IRD) and a leading cause of congenital blindness in children. With gene therapy emerging as a promising treatment, accurate identification of genetic changes have become even more important for providing the right medical care. At AMRF, whole-exome sequencing was performed on 51 patients, revealing mutations in 26 patients, with the highest mutation in the *CRBL* gene (n=5). Deep intronic and regulatory regions may be involved in negative cases, which could be identified by whole-genome sequencing.

POAG is a common eye disease that slowly damages the optic nerve and can cause permanent blindness. It happens due to a mix of reasons like high eye pressure, stress on eye cells, and inherited risks. At AMRF, research involved studying the trabecular meshwork (TM) – a part of the eye that controls pressure, and comparing both the mitochondrial DNA and the activity of genes in single cells from patients and healthy donors to understand why this tissue gets damaged in glaucoma. This research helped unlock the mysteries behind inherited eye diseases and brings us closer to personalised treatments and cures.

## Genetics of Ocular Tumours

Ocular tumours are often presented at late stages and hence their treatment remains as a challenge. Research in the department of Molecular genetics focused on a childhood tumour, retinoblastoma, and an adult-onset tumour, lymphoma. Development of reliable diagnostic and prognostic markers are essential to improve the overall treatment outcome of these tumours. A cost-effective genetic testing methods for retinoblastoma was developed and now implemented in routine clinical care.

During the last year, RBL genetic testing was carried out in 65 patients including 14 older patients who were visiting the clinic for follow-up and others were paediatric patients visiting the clinic for the first time. Mutations were identified in the blood samples of 21 patients. Absence of the mutations in the blood samples of other patients implied the low risk of RB in the future generation, as most of them were restricted to the tumour and not present in the constitutional cells.

Increased expression of a unique cell surface marker, GD2 synthase was found in RB patient samples with increased disease severity. Detection of this marker has better advantage of detecting minimal tumour spread, which is not possible with standard diagnostic tools, such as imaging techniques and cytology in cerebrospinal fluid. Hence GD2 synthase can be used as a potential marker for detecting the tumour spread.

Ocular Lymphoma is the most prevalent primary orbital malignancy in adults, with disease recurrence posing a major challenge in treatment. In the last year analysis of 19 patients, all of them except one were found to have unilateral disease and tumour lesions were localised in all the cases. Molecular analysis showed the alterations of immune functions, cell cycle and cell death pathways.

## Proteomics

### Fungal Keratitis

Extracellular vesicles of pathogenic fungi were not well understood. A comprehensive analysis of the extracellular vesicles produced by *Aspergillus flavus* and *Fusarium solani* were explored. These vesicles were characterised at the molecular level and the protein cargo was examined in detail. The saprophyte and clinical isolates differed in their EV composition also. The functions of these vesicles were being studied, and this allowed to examine the role of EVs in fungal infection. The role of EVs in host pathogen interaction was also examined using a cell culture model of fungal infection.

### Diabetic Retinopathy Project

Almost 17% of diabetic patients develop diabetic retinopathy (DR), a microvascular complication, and one of the earliest complications of diabetes. Among the DR patients, about four percent develop Sight Threatening Retinopathy (STDR). Further, among the undiagnosed prediabetic patients, the development of DR was much higher compared to the general





*Isolating RNA from corneal tissue*

population. In India, the incidence of DM varied anywhere from 12% to 27% of the general population among different states. Therefore, one of the unmet essential needs was prediction of those developing clinical DR before the onset of clinical symptoms among the DM patients. Previously, studies have shown Cystatin C, Leucine Rich Glycoprotein (LRG) and Complement factor B were the predictors of DR among DM patients.

Current study examines the proteins carried by the small extracellular vesicles (EV) for discovering biomarkers. EVs are lipid bilayer vesicles and carry defined cargo of proteins, DNA, RNA and lipids. The important point is their cargo reflect the physiological state of the producer cells. Therefore, they represent and carry the signature of the producer cells and are capable of delivering the cargo to cells. The move from one part of the body to other parts was facilitated through the circulation. They are the actual messengers of cells delivering the information across the body part. Using the isolated EVs from DM and DR patients, several markers were uncovered, including Cystatin C, Vitronectin, Serpin, Peroxiredoxin, Retinol Binding Protein 3 and other proteins. Interestingly, it was shown that RBP3 was not measurable in the plasma of patients, but the same could be measured in the plasma EVs. This important finding paved the way for developing a clinical assay to identify the biomarkers cost effectively from the plasma EVs.

### **Pterygium Project**

A study initiated to understand how changes in gene regulation, caused by epigenetic modifications like DNA methylation, contribute to the development of pterygium, a common eye condition caused by sun

exposure. In this study, tissues from people with pterygium to those from cataract patients were compared. They found that certain genes in pterygium tissue showed altered methylation patterns, some of which turned these genes “on” or “off” in ways that could lead to abnormal cell growth, inflammation, and tissue changes seen in pterygium. The researchers used cutting-edge tools like genome-wide methylation array to identify these changes, showing that specific genes involved in tissue remodelling and scarring were more active, while others tied to stress responses and DNA repair were less active. This is the first study of its kind to look at these kinds of gene changes on a global level in pterygium tissue, and it could lead to new ways of identifying new drugs for treating this common eye condition.

### **Keratoconus Project**

The project utilised previous findings to start a new investigation identifying specific genetic and protein markers responsible for the manifestation of keratoconus in Down syndrome (DS) patients. There was an increased incidence (10-300 times) of keratoconus (KC) in patients with DS. This investigation would help in early screening of the incidence of KC in DS patients thereby helping in the prevention of visual defects. Preliminary results obtained indicated high levels of tear MMP-9 in a few patients affected with DS. Correlation with the clinical data showed that the high tear MMP-9 level patients had low central corneal thickness and the corneal topographic images suggested that these patients were likely to develop KC disease. Further investigations were on to decipher the other molecules involved in the progression of KC among DS patients. This project was carried out in collaboration with Dr. V. Anitha, Chief, Cornea and Refractive Services, Aravind-Tirunelveli.

### **Ocular Pharmacology**

Glaucoma is the second leading cause of blindness worldwide. Glaucoma filtration surgery (GFS) remains the mainstay for the management of uncontrolled glaucoma. The surgical treatment of glaucoma lowers intraocular pressure (IOP) either by decreasing aqueous inflow or by increasing aqueous outflow. Trabeculectomy is the traditional incisional glaucoma filtration surgery in which aqueous outflow is enhanced either by augmenting the existing outflow pathways or by creating artificial outflow pathways into the sub-conjunctival or sub-tenon's space.

Trabeculectomy is the most common glaucoma surgery and is still in use even after the emergence of micro-invasive glaucoma surgical approach. The success of the trabeculectomy greatly depends upon the prevention of post-surgical scarring over the bleb with the use of antimetabolites, 5FU (5-fluorouracil) and MMC (mitomycin C). Despite of this, about 10% of the patients fail surgery leading to vision-threatening complications. With the use of MMC can cause some complications such as hypotony maculopathy and a leaky bleb that is susceptible to endophthalmitis results in surgical failure. Therefore, there is a pressing need to develop/identify anti-fibrotic agents to preserve the filtering bleb and maintain good IOP control.

Human relaxin (RLN2), a 6-kDa peptide hormone, possesses anti-inflammatory, anti-fibrotic, vasodilatory, angiogenic, and cardio-protective actions. The anti-fibrotic activity of RLX2 has been extensively studied in non-ocular fibrotic diseases and not in ocular fibrosis especially glaucoma fibrosis.

Currently, researchers from AMRF have been working on investigating the IOP lowering property and anti-fibrotic properties of plain RLN2 (serelaxin, recombinant relaxin) on TGF $\beta$ 2-induced elevated IOP ex vivo model of glaucoma using Human Organ Cultured Anterior Segment (HOCAS) and also to study the mechanism by which RLN2 mediates its anti-fibrotic activity in fibrosis induced by TGF $\beta$ 2 in the trabecular meshwork. TGF $\beta$ 2 treatment caused 25% reduction in outflow facility and the presence of human relaxin (RLN2) enhanced the outflow facility by 2.2 fold as compared to vehicle treated eyes. Further studies were underway to analyse the mechanism by which relaxin reduces the fibrosis induced by TGF $\beta$ 2 treatment using nCounter Fibrosis assay.

## Microbiology

Fungal keratitis, mainly from *Fusarium spp.* and *Aspergillus flavus*, significantly causes corneal blindness, often needing surgery due to poor antifungal response. The study at AMRF hypothesised that these pathogens have different pathophysiology due to unique immune pathways. While miRNAs regulate gene expression in various corneal diseases, their role in fungal keratitis is unclear. This study examined species-specific gene and miRNA expression in fungal keratitis, identifying pathogen-specific and independent host immune responses triggered by *Fusarium spp.* and *A. flavus*. Findings deepen the understanding of immune dynamics and lay the groundwork for future research,



Library preparation for next-generation sequencing

potentially improving therapies. Moreover, distinct miRNA signatures linked to *Fusarium spp.* and *A. flavus* infections were found, associated with disease progression, and may act as diagnostic and prognostic markers.

The study on the investigation of ocular immuno-inflammatory signatures in uveitis patients suggests that changes in tear proteins may be linked to eye inflammation in uveitis. One specific protein, MIF, exhibits distinct patterns in patients compared to healthy individuals, which could aid in tracking the disease in the future.

## Bioinformatics

AMRF provided researchers with powerful, user-friendly bioinformatics tools to analyse next-generation sequencing (NGS) data with ease. Its in-house computational platform supported the analysis of genomic and exomic data, enabling the identification of key mutations associated with eye diseases. The updated machine learning-based tool was six times faster than older tools in detecting and prioritising eye disease-specific mutations from whole-exome and genome data. In addition, AMRF offered expert data analysis support for transcriptomic, mirnomic, and other omics datasets, assisting scientists across AMRF and its collaborative institutes with their research needs.

## Stem Cell Biology

Stem cells are undifferentiated cells with the ability to self-renew and differentiate into specific types of cells. Each tissue in the human body has adult stem cells that maintain tissue homeostasis throughout life. The focus of research in this laboratory is to understand the basic



biology of adult stem cells in the human eye, elucidate changes with ageing/diseased conditions, and develop better stem cell-based therapies. Studies were being carried out on human (i) trabecular meshwork stem cells in relation to primary open angle glaucoma, (ii) lens epithelial stem cells and age-related cataract, and (iii) retinal pigment epithelial stem cells and age-related macular degeneration.

Previous studies from this laboratory confirmed the loss of trabecular meshwork stem cells in glaucomatous condition and demonstrated that transplantation of the cultured trabecular meshwork stem cells reduced the intraocular pressure in an organ culture model for glaucoma. The exosomes/small extracellular vesicles derived from these stem cells were also identified to enhance trabecular meshwork cell proliferation and to have antioxidant potential. Analysis of their molecular cargo - protein and miRNAs were the identified factors that are associated with these properties. Studies were initiated to establish clinical grade exosomes from trabecular meshwork stem cells, to evaluate their efficacy in tissue regeneration and restoration of normal intraocular pressure in an animal model for glaucoma. In addition to trabecular meshwork stem cells, molecular studies on lens epithelial stem cells and retinal pigment epithelial stem cells have been carried out to understand the molecular regulation of these adult stem cells including transcription factors, microRNAs and associated signalling pathways. Identification of these regulatory factors will enable the development of better methods for expanding the stem cells *in vitro* as well as to activate them *in vivo*.

## Infrastructure Development and Research at Regional Research Centres (RRC)

The Regional Research Centre at Aravind-Tirunelveli was relocated to a new facility with dedicated infrastructure and amenities, inaugurated on 8<sup>th</sup> February 2025. In addition, a new lab with advanced capabilities was established at Aravind-Coimbatore in the year 2025. Along with the existing research centre at Aravind-Pondicherry, these RRCs have been conducting clinical and translational research, serving as a bridge between basic science and clinical innovation in ophthalmology.

Several projects funded by both governmental and non-governmental organisations were initiated and in progress. The RRC at Aravind-Pondicherry conducted an ongoing screening of families for specific mutations related to juvenile open-angle glaucoma, and the project was in progress. Another project on viral keratitis biomarkers was also ongoing.

RRC Coimbatore organised a full-fledged team of clinicians and basic researchers working on several aspects. Aravind Registry for Inherited Diseases of the Eye was one such activity. Developing rapid point of care diagnostics was also being pursued actively.

At the RRC in Aravind-Tirunelveli, the existing project on screening families for glaucoma-specific gene mutations has been expanded, and an additional project studying Down syndrome and its association with ocular diseases has also been initiated.

*Inauguration of the new facility of the Regional Research Centre at Aravind-Tirunelveli*





*Participants of the Extracellular Vesicles Isolation Workshop*



*Participants of the Dartmouth Education and Research Conference*

## Conferences/Workshops conducted

### Two-day workshop on “Extracellular Vesicles: Isolation, Characterisation, and Applications”

24-25 October 2024

Organised as part of the October Summit and Scientific Social Responsibilities (SSR) initiative of the ongoing SERB-SRG project, the workshop was structured into two modules where in the first segment, participants conducted hands-on experiments to isolate extracellular vesicles (EVs) from plasma using two distinct techniques and observed the demonstration of EV isolation from Platelet-Rich Plasma (PRP), and in the second segment, participants performed EV characterisation using Nanoparticle Tracking Analysis (NTA), protein isolation, Western blot, and proteome analysis.

A total of 17 participants, including faculty members, research scholars, and postgraduates from 11 institutions across Tamil Nadu participated.

### Dartmouth Education and Research Conference

3-4 December 2024

Hosted by AMRF in collaboration with Dartmouth University, the conference provided a unique opportunity for both institutions to share educational and research activities, paving the way for future collaborative research projects and long-term partnerships between AMRF and Dartmouth University.

Students from Dartmouth University presented research proposals on various eye diseases to an audience of clinicians, scientists, and research scholars which received high praise from the invited experts. Similarly, AMRF research scholars displayed their work through poster presentations. During lab visits, AMRF scientists showed the core research facilities and explained the ongoing projects to the Dartmouth delegation.

## Ongoing Projects

### Basic research

The application of basic research to solve clinical problems continues to be the primary focus of research at AMRF. Host-pathogen interaction in fungal and bacterial pathogenesis and mechanisms underlying eye disorders were explored in depth. Proteome profiling by mass spectrometry, single-cell RNA analysis, whole genome sequencing, and microbiome interaction were pursued vigorously. Besides laboratory studies, AMRF actively involved in population studies to identify people at risk of early-onset and late-onset glaucoma. Researchers also identified biomarkers that could predict the progression of diabetes to early diabetic retinopathy. These studies will allow the early intervention and prevention of severe sight-threatening disorders. The overall objective of AMRF research activities is to leverage fundamental scientific knowledge for patient care.



- A comparative proteomic analysis of plasma and vitreous humor derived small Extracellular Vesicles (SEVs) from Proliferative Diabetic Retinopathy (PDR) patients.
- A scalable system for the production of human induced pluripotent stem cell derived functional retinal pigmented epithelial cells
- Adult stem cell derived extracellular vesicular miRNAs for trabecular meshwork regeneration in glaucoma
- Adult stem cell derived exosomes: a cell-free therapy for glaucoma
- Analysis of tear MMPs from Down's syndrome patients to assess the predisposition of Keratoconus among Down's syndrome patients
- Attenuation of drug-resistance in Ocular Multidrug-Resistant *Pseudomonas aeruginosa* using human corneal miRNA cargo of Extracellular Vesicles
- Characterization of adult human lens epithelial stem cells in the maintenance of tissue homeostasis throughout life and their functional status in cataractous lens
- Decoding the Unknown Genetic Etiology to Ameliorate the Molecular Diagnosis of Leber's Congenital Amaurosis
- Deciphering predictive and preventive methods in the progression of pterygium using multi-omics approaches
- Development and validation of a non-invasive point-of-care diagnostic tool for fungal keratitis
- Dysregulated human Corneal miRNAs and their role in disease progression
- Early Detection of Glaucoma by Genome Analysis
- Elucidating the role of cancer stem cells in chemoresistant retinoblastoma and their therapeutic implications
- Evaluation of IOP lowering property and Anti-fibrotic property of Relaxin on TGF $\beta$ 2-induced Elevated IOP Ex vivo model of glaucoma using Human Organ Cultured Anterior Segment (HOCAS)
- Expression profiling of human corneal miRNAs and their role in *Pseudomonas aeruginosa* induced keratitis
- Functional repair of mutant RB1 by CRISPR-mediated gene editing in retinal tumor cells of bilateral RB patients
- Identification and Characterization of adult human retinal pigment epithelial stem cells
- Identification of host immune factors as predictor of severe human fungal keratitis and their utility in disease management
- Investigation of nuclear genes involvement in a Mitochondrial Disorder: Leber's Hereditary Optic Neuropathy
- Isolation and Characterisation of Extracellular Vesicles from Human tear film & Multiple isoforms Human Tear lysozyme are localised in the Extracellular Vesicle
- Mitochondrial Association with Transcriptomic signatures for Trabecular Meshwork Damage in Glaucoma: A tissue-specific omics approach
- Modelling macular degeneration using human pluripotent stem cells for better understanding of disease pathophysiology and to investigate novel therapies
- Molecular characterization of ocular lymphoma for improved disease prognosis
- Molecular characterization of human retinal pigment epithelial stem cells and their role in age related macular degeneration
- Molecular regulation of adult human lens epithelial stem cells: changes with aging and cataract
- Molecular regulators associated with the maintenance of human trabecular meshwork stem cells in relation to their reduction in aging and glaucoma
- Prospective Study Analyzing the Role of Cytokine-Mediated IOP reduction in POAG / OHTN Patients Receiving Therapeutic Ultrasound for Glaucoma (TUG) Treatment
- Role of Human Corneal miRNAs in the onset and severity of Fungal Keratitis
- 'Relaxin' the pressure in glaucoma
- Role of vitamin D3, dopamine and serotonin levels in myopia development and progression
- Stress induced alterations in the Extracellular Vesicles of *Aspergillus flavus*
- Understanding the mechanism of action of a novel chemical cross-linker designed to treat keratoconus
- Ocular Macrophage Migration Inhibitory Factor-based stratification and prognostication of patients with vision threatening ocular inflammatory conditions
- Ocular macrophage migration inhibitory factor-based stratification and prognostication of patients with vision threatening ocular inflammatory conditions
- Whole genome sequence analysis of selected family members of the Kadaladi family and identification of markers for the early detection of JOAG using tear extracellular vesicles

## PhD Awarded



R. Kadarkarai Raj  
Genetics  
Thesis: Molecular genetics of ABCA4 gene in patients with retinal dystrophies  
Guide: Dr. P. Sundaresan  
PhD awarded by Alagappa University



A.S. Sree Viswarubhini  
Genetics  
Thesis: Molecular characterisation of Leber's Congenital Amaurosis in South Indian cohort  
Guide: Dr. P. Sundaresan  
PhD awarded by Alagappa University



C. Prakash  
Genetics  
Thesis: Investigating the cross talk between nuclear and mitochondrial genome in patients with Leber's Hereditary optic neuropathy  
Guide: Dr. P. Sundaresan  
PhD awarded by Alagappa University



T. Shanthini  
Molecular Genetics  
Thesis: Molecular characterisation of tumour progression in retinoblastoma  
Guide: Dr. A.Vanniarajan  
PhD awarded by Madurai Kamaraj University

## Clinical research

Aravind Eye Hospitals are actively engaged in both prospective and retrospective clinical studies. These encompass investigator-initiated academic research as well as nationally and internationally funded collaborative studies, including both observational and interventional designs. The overarching objective is to advance eye care by leveraging evidence-based and innovative treatment strategies that have the potential to shape clinical practice and decision-making on a global scale.

All clinical research at Aravind is conducted in accordance with the New Drugs and Clinical Trial Rules, 2019, and the guidelines established by the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH), ensuring adherence to the highest standards of ethical and scientific integrity.

### Glaucoma

- A Comparative Study of Surgical Outcomes of Tanito Ab Interno Microhook Trabeculotomy with Phacoemulsification in Primary Open Angle Glaucoma Versus Primary Angle Closure Glaucoma
- A cross sectional study on comparison of lens parameters and choroidal thickness across spectrum of primary angle closure disease and normal population
- A Multi-Center, Prospective, interventional Study Evaluating the Safety and Efficacy of the TUG in Subjects with Primary Open Angle Glaucoma or Ocular Hypertension
- Artificial Intelligence and Machine Learning Analysis of Ophthalmic Data from patients with Primary Glaucoma
- Assessment of Efficacy and Safety of Interventional Valve Enhancing Trabeculotomy with Phacoemulsification in Open Angle Glaucoma
- Assessment of the role of regular voice messages, audio-visual reminders using adherence monitors, and one on one counselling on the adherence to topical medications in patients with glaucoma - A non-randomized study
- Barriers to follow-up and utilization of vision centres in patients with open-angle glaucoma in South India
- Comparison of accuracy in intraocular pressure measurements using re-used ethylene oxide sterilised and new Icare probes
- Comparison of Virtual Reality Based Perimetry with Standard Automated Perimetry in Patients with Glaucoma
- Comparing the Quality of life outcomes between combined Phaco-Trabeculectomy and MIGS-Phaco
- Comparing the surgical outcomes of combined Kahook dual blade versus tanito micro hook trabeculectomy with phacoemulsification in eyes with moderate to advanced glaucoma-A randomised controlled trial (K-Lot Trial)
- Comparing the surgical outcomes of combined KDB phacoemulsification versus NPDS phacoemulsification for advanced glaucoma with coexisting cataract
- Comparison of Ocular biometric Parameters in Patients diagnosed with Nanophthalmos and in patients with Primary Angle Closure Disease
- Enhancing Early Glaucoma Detection through Family Screening to Reduce Glaucoma Related Blindness
- Environmental Assessment of Community-Based Vision Centres Vs. Referral Centre Visits
- Enhancing glaucoma management with at-home tonometry: survey of patient and provider preferences
- Evaluation of Nanodropper-mediated Microdrops vs. Conventional Drops of Netarsudil 0.02%
- Evaluating a novel AI-based fundus camera device for screening glaucoma in the setting of a comprehensive ophthalmology clinic
- Efficacy of Bruch Membrane Opening -Minimum Rim width to distinguish between Glaucomatous Neuropathy versus Non-Glaucomatous Neuropathy
- Family screening of Glaucoma
- Interventions and outcomes following malignant glaucoma: A retrospective analysis
- Prospective study analyzing the role of cytokine mediated IOP reduction in POAG / OHTN patients receiving TUG Treatment
- Post-operative effects of Ripasudil hydrochloride after trabeculectomy on primary glaucoma
- Risk factors for glaucoma following vitreoretinal surgery with tamponade - A Retrospective Analysis
- Real world data collection of VISULAS Green Selective Laser Trabeculoplasty (SLT) in routine office/ Hospital Use
- Screening of Family members of Juvenile open-angle Glaucoma (JOAG) Patients for Myocilin Gene Mutations
- Screening for glaucoma in children with Retinopathy of Prematurity: A Pilot Study
- Timed Instillation of Medicated Eyedrops in Glaucoma Patients
- To evaluate the efficacy and safety of Aurolab Artificial Drainage Implant (AADI) on intraocular pressure reduction in Paediatric patients with refractory glaucoma

### Retina

- A Double Masked, Parallel Group, Randomized, Multicenter, Clinical Study to Compare Efficacy and Safety of Intas Ranibizumab with Lucentis® in Patients with Neovascular (Wet) Age-Related Macular Degeneration (AMD)
- A Double Masked, Parallel Group, Randomized, Multicenter, Clinical Study to Compare Efficacy and Safety of Intas Ranibizumab with Lucentis® in Patients with Neovascular (Wet) Age-Related Macular Degeneration (AMD)
- A Phase 3, Randomized, Double-Blind Parallel Group, Multicenter Study to Compare Efficacy, Safety, Pharmacokinetics, and Immunogenicity of BP05 Versus EU- Approved Lucentis® in Patients with Wet (Neovascular) Age-Related Macular Degeneration
- A Phase III, Prospective, Randomized, Parallel group, Double-blind, Multicenter Study to Compare the Efficacy, Safety, and Immunogenicity of Lupin's Aflibercept with Eylea® in Patients with Neovascular Age-Related Macular Degeneration
- A Prospective, Multi-centre, Single-arm, Phase IV Study to Assess the Safety, Efficacy and Immunogenicity of Ranibizumab Solution for Injection 10 mg/mL (r-DNA Origin) for the Treatment of Neovascular Age-related Macular Degeneration



- A Phase 3, Multicenter, Double-Masked, Randomized, Parallel Group Study to Evaluate the Efficacy and Safety of Intravitreal OTX-TKI (axitinib implant) in Subjects with Neovascular Age Related Macular Degeneration
  - Age Related Macular Degeneration Benchmark Imaging Dataset
  - A study on the differential expression of Piwi-interacting RNAs (piRNA) and altered Piwi-like protein interactions in Diabetic Retinopathy and other retinal conditions
  - Accuracy of smart phone based mydriatic fundus camera in the detection of CMV retinitis
  - A Phase IIIb, Multicenter, Open-Label, Single-Arm Study To Investigate Faricimab (Ro6867461) Treatment Response In Treatment-Naïve, Underrepresented Asian Indian Patients With Diabetic Macular Edema
  - A Phase III, Randomized, Double blind, Parallel Group, Multicenter Study to Compare the Efficacy, Safety and Immunogenicity between Test Aflibercept and Eylea® in Patients with Neovascular (Wet) Age-Related Macular Degeneration (AMD)
  - A Prospective, Multi-center, Single-arm, Phase IV Study to Assess the Safety, Efficacy and Immunogenicity of Ranibizumab Solution for Injection 10 mg/mL (r-DNA Origin) for the Treatment of Neovascular Age-related Macular Degeneration
  - Comparative Analysis of Two Innovative Products Designed Exclusively for Sutureless Scleral Fixation of Intraocular Lenses, “XNIT Device” versus “CM-T Flex Intraocular Lens
  - Comparative analysis of the outcome of large macular holes operated with Platelet Rich Plasma derived exosomes versus Platelet Rich Plasma
  - Detection of diabetic retinopathy in the human eye using thermal imaging
  - Diabetic Retinopathy Microbiome Study-India
  - Efficacy of Autologous Platelet Rich Plasma as Adjuvant Therapy for Acute Postoperative Endophthalmitis – A Prospective Interventional Study
  - Genetic testing and deep phenotyping of Inherited Retinal Diseases (IRDs) in Indian population: A Prospective multicenter study
  - Genetic characterization of Macular Telangiectasia (MacTel) 2 in the Indian population
  - Intra-Silicone Oil Methotrexate as Adjuvant to Pars Plana Vitrectomy for Sub-silicon oil Haemorrhage in Diabetic Tractional Retinal Detachment – A Prospective Interventional Study
  - LASI-DAD ocular imaging study
  - Long-term effects of semaglutide on diabetic retinopathy in subjects with type 2 diabetes
  - Long-term Outcomes of Patients with DME Who Receive Less than 3 Intravitreal Injections in the First Year
  - Prospective Study for Ocular and Systemic Pathologies
  - Performance of a generic artificial intelligence algorithm on a smartphone fundus camera for screening retinal conditions
  - Prevention of Blindness using Digital Technologies at Primary care centres
  - Quality of life in patients with Diabetic Retinopathy in South India, a questionnaire-based cross-sectional study - DR QOL
  - Surgical outcomes of short-term perfluorocarbon liquid (PFCL) tamponade in rhegmatogenous retinal detachment (RRD) eyes with closed funnel configuration.
  - Short-Term PFCL Endo-Tamponade for Giant Retinal Tear Associated Retinal Detachment – Conventional Versus Two- Staged Surgical Approach
  - Short-Term Perfluorocarbon Liquid Tamponade In Familial Exudative Vitreoretinopathy Associated Rhegmatogenous Retinal Detachment With Severe Proliferative Vitreoretinopathy
  - Structured Post-marketing surveillance to collect the safety data of intravitreal aflibercept injection (IVT-AFL) in patients of wet age-related macular degeneration during real world clinical practice.
  - Subjective High-risk Patient Counselling Randomisation Project (SHARP)
  - To evaluate the anatomical and visual outcomes of a staged surgery with intravitreal Bevacizumab and SF6 tamponade for diabetic tractional retinal detachments (TRD) complicated by intractable intraoperative haemorrhage.
- Cornea**
- Analysis of agreement between Corneal Tomography and ASOCT in individuals with Down syndrome with and without keratoconus
  - A Prospective Comparative Observational Study on the Clinical Features, Microbial Profile and Outcomes of Patients with Corneal ulcers referred from vision centers vs Primary Tertiary Center Visit
  - Analysis of Tear protein profile in Herpes simplex viral keratitis
  - A Prospective analysis on the risk factors for Descemet's membrane detachment during Small Incision Cataract Surgery and Phacoemulsification
  - Clinical outcomes of anterior chamber wash with intracameral voriconazole and intrastromal voriconazole of patients with deep stromal fungal keratitis with endoexudates in south India
  - Corneal Impression Membrane (CIM) Sampling for microbial keratitis diagnosis
  - Effect of clinical photo documentation in the management of corneal ulcer
  - Intelligence Smartphone ImaginG Trial - (INSIGHT)
  - Impact of personality on decision making and satisfaction rates among patients undergoing Femtosecond laser and Microkeratome based refractive surgery
  - Identifying Barriers to Timely Keratitis Care: A retrospective analysis of risk factors among patients with corneal ulcers
  - Identifying Barriers to Timely Keratitis Care: A Prospective Questionnaire Based Survey
  - PUTT (Parasitic Ulcer Treatment Trial)
  - Rose Bengal Electromagnetic Activation with Green light for Infection Reduction (REAGIR) Study
  - Rose Bengal Electromagnetic Activation with Green light for Infection Reduction II (REAGIR II) - a pilot study
  - Research Study on the Impact of Early Medical Attention on Recovery from Corneal Injury
  - Randomized control trial to evaluate safety and efficacy of a novel electric eyelid warming device with massager for the management of meibomian gland dysfunction
  - REAGIR (Rose Bengal Electromagnetic Activation with Green light for Infection Reduction)
  - Steroids and cross-linking for Ulcer Treatment
  - To assess the safety and efficacy of posterior chamber phakic intraocular lens (PCPIOL) in patients with high myopia
  - Tear Proteomics in Down syndrome individuals with and without keratoconus
- Cataract**
- Analysis of the performance of EYE STAR 900 biometer in dense cataracts

- Comparison of Endothelial cell loss following cataract surgery performed using active sentry and o zil handpiece
- Impact of pupil size on the Post-op Outcome of Monofocal Toric IOLs
- Impact of repeat hydro dissection after phacoemulsification over cortex removal in cataract surgery.
- Investigating the efficacy and safety of subtenous anesthesia (STA) in various intraocular surgeries (SICS, PHACO, COMBINED)
- To evaluate the safety and performance of new acrylic hydrophobic intraocular lens
- Neutrophil-to-lymphocyte ratio as an inflammatory biomarker of isolated ocular motor cranial nerve palsies in type 2 diabetes mellitus
- Role of Homocysteine in Vasculopathic Cranial Nerve Palsy
- Risk factors and visual outcomes of non-arteritic anterior ischemic optic neuropathy in an Indian population
- Traumatic Optic Neuropathy Treatment study
- To test the reliability of color vision smartphone application with the ishihara chart
- Diagnostic Protocol for Perceptual Visual Difficulties in Children with Cerebral Visual Impairment
- Eye Screening with Portable Vision Screeners for Children with Learning Disabilities
- Feasibility of a software application for use in assessment of Cerebral Visual Impairment
- Re-imagining Education-Accelerated Development (READ) – Pilot Study
- Retrospective Analysis of Surgical Outcomes of Secondary Intraocular Lens Implantation with or Without Posterior Capsule Capture in Paediatric Eyes Following Primary Open Globe Injury Repair

## Neuro

- A pharmacogenomics study to identify genetic risk factors for development of ethambutol optic neuropathy
- Clinical profile and visual outcomes of traumatic optic neuropathy
- Clinical Profile of Ocular Motor Nerve Palsy
- Clinical Profile of Sixth Nerve Palsy
- Clinical Profile of Multiple Nerve Palsy
- Clinical profile and perioperative risk factors for post cataract surgery non-arteritic anterior ischemic optic neuropathy in an Indian population: an emulated target trial
- Comparative Study of Disc Characteristics in Papilledema Due to Idiopathic Intracranial Hypertension (IIH) versus Tumors
- Evaluating the Impact of Body Mass Index on Visual Prognosis in Idiopathic Intracranial Hypertension

## Paediatric

- A prospective, controlled pilot study to assess the feasibility of assessment of functional vision in Cerebral Visual Impairment (CVI)
- Combined unilateral strabismus with cataract surgery (StACS) for adults with visually significant cataracts and horizontal strabismus: safety, efficacy and predictive factors.
- Comparing the effectiveness of different counselling methods for strabismus surgery in paediatrics: A study of image-based, animation-based, and verbal counselling
- Comparison of Anxiety Among parents of Children with High Myopia and Myopia - A Questionnaire based study
- Current Status of Brock string therapy - consensus among strabismologists and compliance among the patients

## Uvea

- A phase III, multicenter, randomized, double-masked, sham-controlled study to investigate the efficacy, safety, pharmacokinetics, and pharmacodynamics of ro7200220 administered intravitreally in patients with uveitic macular edema
- Investigation of ocular immuno-inflammatory signatures in uveitis patients for prognostication and risk stratification
- Multi-omics Strategies to Improve Clinical Outcomes in Uveitis LOTUS– Leveraging Ocular Tissues in Uveitis Study
- Ocular Macrophage Migration Inhibitory Factor-based stratification and prognostication of patients with vision threatening ocular inflammatory conditions

## Health services research

The research division at LAICO leads health services research efforts across the AECS, focusing on improving the delivery and accessibility of eye care. Key areas of investigation include access to quality care, expanding universal eye care coverage through vision centres, and evaluating the effectiveness of innovative technologies such as telemedicine and artificial intelligence. The division also undertakes population-based studies to assess the prevalence of eye diseases and patterns of service utilisation within communities. In addition, the team conducts systematic reviews and meta-analyses on a range of clinical and non-clinical topics to inform evidence-based practices.

- Cost-Effectiveness of a Community-based Vision Center in Treating Refractive Error and Cataract in South India
- Comparing agreement of iCare vs GAT - A systematic review and meta-analysis
- Efficacy of phacotrabeculectomy in pseudoxfoliation glaucoma - A Systematic Review and Meta-analysis
- Evaluating the association of Manual Small Incision Cataract surgeries and surgically induced astigmatism: A systematic review and meta-analysis
- Examining the Safety and Efficacy of an Altered Post-OP Follow-up Protocol following an uneventful cataract surgery at a Tertiary Eye Care Hospital in Bangladesh - A Randomised Controlled Trial
- Eye injury rates and community cost savings through Vision Centers: Evidence from southern India
- Impact of Vision Centres on Achieving Universal Eye Health Coverage: Prevalence, Coverage, and Utilisation of Eye Care Services in Southern India
- Impact of Electronic Medical Record Implementation on Care Provider and Patient Satisfaction in an Indian Tertiary Level Eye Hospital Network
- Prevalence of Glaucoma in India - A systematic review and meta-analysis
- Prevalence and Risk Factors for Glaucoma in Nanophthalmos - A Systematic Review and Meta-analysis
- Rapid Assessment of Avoidable Blindness Survey in Kanniyakumari District





# Ophthalmic Supplies and Equipment

*To revitalise its global presence while meeting local demands, Aurolab has adopted various new initiatives, upgraded its product technologies, and enhanced production efficiency, all aligning with Aravind's mission of universal eye care coverage. The launch of new products, construction of eye drops facility and pharmaceutical building, along with its expansion into the Andhra Pradesh Medtech Zone, and its ongoing initiatives for continuous improvement through TPM, all reflect its commitment to efficiency, quality and safety.*

## Infrastructure Development

To meet the growing demand for ophthalmic supplies and equipment, Aurolab has been continuously expanding its production capacity. Two years ago, Aurolab undertook a major initiative by beginning the construction of a new eye drop facility to enhance its capabilities in high-quality pharmaceutical manufacturing. The new facility is expected to be operational by October 2025. Built to international standards, can boast an annual production capacity of 36 million eye drops. Spread across 75,000 sq. ft., the dedicated space will be equipped with state-of-the-art machines for sampling, filling, and other critical processes. This expansion will enable the Aurolab to reach out to regulated markets globally, including the US and Europe, while also catering to the growing demand in Africa, where access to quality eye care products was a pressing need. By bridging this gap, Aurolab aims to make a meaningful impact on the lives of millions worldwide.

Towards expanding its horizon, Aurolab took a major step forward by acquiring a 4-acre land parcel in the Andhra Pradesh Medtech Zone (AMTZ), one of India's leading medical technology and innovation hubs. Plans are underway to construct its second facility, which



*R.D. Sriram, with Shri N. Chandrababu Naidu, Chief Minister of Andhra Pradesh at Vishakapatnam*

focus on producing advanced ocular surgical devices like Aurovisc and Aurogel, essential tools for eye care professionals around the globe. Construction began in December 2025, marking Aurolab's first venture beyond its headquarters and paving the way for future growth and potential expansion within AMTZ. Its commitment to innovation and quality continued as Aurolab embark on this new chapter, enhancing its capacity to serve and support the field of ophthalmic surgery with cutting-edge solutions.

## New Products

Unique among Aurolab's products was the AADI, a non-valved glaucoma drainage device that can benefit glaucoma patients during the last phase of their treatment. This type of devices were still manufactured by only a few other companies in the community, but their versions were not affordable for everyone. However, the AADI manufactured by Aurolab is of high quality and available at an affordable price. This socially impactful product was initially launched as AADI 350. The latest AADI 250, with a new design, has come into practical use. This new AADI 250 was launched by Aurolab at the 24<sup>th</sup> GSI Conference on 27<sup>th</sup> September

2024, under the leadership of Prof. Alan L. Robin, MD, Ophthalmology and International Health, Johns Hopkins University. All the leading ophthalmologists of India attended the event, learned about this product, and shared their best opinions.



*AADI - 250 - a non-valved glaucoma drainage device*



## New Initiatives and Developments

### Continuous improvement overall production efficiency and quality

The continuous improvement process under Total Productive Maintenance (TPM) was a key initiative of Aurolab, well implemented and making good progress. Since August 2022, Kaizen Competitions have been conducted regularly every two months for all employees, including managers, to showcase their best Kaizens on stage. As part of this activity, the Kaizen winners among production personnel and management personnel were awarded once a year, enabling to create a Kaizen culture among employees.

Further, November 2024 was observed as quality month with a flag hoisting, symbolising quality as priority.

### Skill development centre

At Aurolab, consistent efforts have been made over the past few years to improve process knowledge and skills among its workforces. As part of this commitment, the Skill Development Centre (SDC), including specialised training facilities for Blade and Suture divisions, was inaugurated on 10<sup>th</sup> July 2024 by Dhivya Ramasamy, Executive Director, LAICO.

This initiative focused on enhancing the technical knowledge and hands-on skills of Aurolab's production workers. The targeted training helped increase productivity, ensure higher precision, and ultimately improve product quality across key manufacturing areas.

### Inauguration of the skill development centre



## Regulatory Affairs

Aurolab secured significant achievements in regulatory compliance and market expansion last year. The manufacturing license for class C & D devices from Indian FDA were successfully received and the drug license has been renewed, demonstrating its commitment to quality and regulatory standards. Furthermore, Aurolab obtained the Quality Management System certificate for the Aurolab Procoat and Procoat Plus in its product range. Aurolab also received the first European Union Medical Device Regulation (EUMDR) approval for its prime product Aurolab Vivid.

Expanding its global footprint, Aurolab has registered a total of 27 products across 32 countries including Azerbaijan, Paraguay, Iran, Czech Republic, Syria, and many more, to providing quality health care solutions on a global scale.



## Marketing

### International brand launch

As part of Aurolab 2.0, an international brand launch was conducted on 14<sup>th</sup> May 2024. Hosted as a webinar by the International Business Group, the event was attended by 170 participants from around the world. The webinar provided in-depth insights into the attributes and focus areas of Aurolab 2.0. Additionally, the new logo reflects the company's unwavering commitment to innovation and quality, assuring customers that it will continue to meet their evolving needs.

### Awareness on Aurolab Essence IOL

In August 2024, Aurolab's domestic marketing team engaged with 700 doctors to highlight the importance of the Aurolab Essence IOL and presented them with the Essence Kit. This initiative successfully raised awareness about the product among ophthalmologists while fostering strong relationships between Aurolab's administrators and the physicians. The primary objective of this activity was to create constructive actions that enhance customer engagement, ensuring meaningful interaction and business growth.

### CMEs, Training Programmes, and Conferences

From April 2024 to March 2025, Aurolab made significant contributions across both domestic and international platforms through product



*Participants engaging in an activity during the Counsellor Connect 360 training programme*

demonstrations. Locally, the company participated in over 48 conferences, 12 CME programmes, 18 talks, 15 wet labs, and 12 live surgeries. Internationally, Aurolab engaged in 27 conferences, 13 product launches, 11 campaign activities, 20 round table discussions, two webinars, four CMEs, four wet labs, and six podium presentations, reinforcing its commitment to advancing ophthalmic education and knowledge sharing globally.

### Counsellor Connect 360

Aurolab's Domestic Marketing team organised a special training programme called Counsellor Connect 360, between 22-29 September 2024, for counsellors who play a major role in interacting directly with patients to provide advice on their needs, the best lenses, surgery, treatment details, and their medical cost estimation. The counsellors were divided into two groups and a special training was provided for them at Kadambavanam, Madurai.

*Participants of the Business Communication Conversation Practice*





## Human Resource Development

### Business communication conversation practice

Aurolab has been contributing to the betterment of its workers with utmost care. With the enthusiasm of the employees, Aurolab has partnered with Thiagarajar School of Management (TSM), Madurai, to provide them with business communication skills training to further enhance their career path. Approximately 30 employees participated in this training from November 2023 to January 2024 and improved their business communication skills. Certificates for this training were awarded in February 2024 to honour the participants. The event was graced by R.D. Sriram, Director, Aurolab, and Dr. M. Selvalakshmi, Principal, TSM.

### Strengthening workplace health & safety

Aurolab always prioritise the health and well-being of its employees. In line with this commitment, Aurolab put continuous efforts to enhance workplace safety, as a result, the Occupational Health Centre (OHC) was opened on 23<sup>rd</sup> September 2024, at the campus. The OHC is fully equipped and now operational, serving as a dedicated facility to provide timely medical care, promote health awareness, and ensure quick response in case of emergencies. To further strengthen its preparedness, Aurolab has also introduced a fully equipped on-site ambulance. This initiative ensures immediate medical support and swift transportation to nearby hospitals whenever needed.

Together, the OHC and ambulance service marked a significant step forward in its commitment to building a safe, responsive, and health-conscious work environment for all employees.

*Inauguration of the Occupational Health Centre*



*Production staff performing an awareness play as part of the National Safety Week observance*

### National safety week

Aurolab observed the 54<sup>th</sup> National Safety Week from 4-10 March 2025, commenced with the hoisting of the safety flag. All employees pledged their commitment to adhering to safety protocols. Throughout the week, engaging competitions such as slogan, poster design, and a safety quiz were organised. Comprehensive safety training sessions were also conducted to raise awareness among all employees.

### Social Responsibility Activity

As part of its social responsibility initiatives, Aurolab has contributed essential resources to rural schools to enhance the learning environment. The support included computer desks, microphones, blackboards, fans, printers, and library shelves, encouraging both students and schools to thrive academically, building a brighter future for young minds in underserved areas.

*Aurolab team handing over essential educational resources to a rural school as part of its social responsibility initiative*



## Aurolab at Various National and International Ophthalmic Conferences



*Intraocular Implant and Refractive Society of India (IIRSI)*



*Glaucoma Society of India (GSI)*



*Vitreo Retina Society of India (VRSI)*



*American Academy of Ophthalmology (AAO)*



*Turkish Ophthalmological Association (TOA)*



*Phaco Refractive Decoded*



*Vision 2020*



*European Society of Cataract & Refractive Surgeons (ESCRS)*





# Information Technology

*Towards the journey of providing digital solutions to eye hospitals, Auroitech is expanding its services to new hospitals, developing new products, and undertaking various initiatives to strengthen its capacity to meet growing technological needs.*

## Product updates

Last year, Auroitech launched several new products and enhanced its existing offerings to strengthen its digital solutions portfolio. The team is nearing completion of the revamp of its flagship EMR product eyeNotes, which is slated for completion by December 2025.

This includes a new feature called Loop2Learn that enables doctors to engage in focused clinical discussions about individual patients. It allows questions to be raised, clarifications to be shared, and threaded conversations to be maintained for each case.

Dhrishti, a mobile app for patients, was launched this year, and the team is currently working on adding new features. Auroillumina, an app for managing eye banking functions has also gone live. AuroiStores, an inventory management application has also been launched. Auroitech has also launched applications for Lab Management, Accommodation Management, Compliance Management, and Facility Management, and have all gone live.

## New clients

During the last year, Auroitech onboarded a total of 10 unique clients across 14 locations, bringing the total number of clients to 21. Through eyeNotes, Auroitech contributes significantly to increased patient safety and improved efficiency across these hospitals.

## Events

Auroitech organised a Techxcellence Hackathon to inspire innovation and problem-solving among college students at Aravind-Madurai on 31<sup>st</sup> January 2025. Over 75 participants from various colleges developed tech solutions to real-world challenges, guided by industry mentors.

Bringing together its clients for meaningful discussions, networking, and strategic collaborations, an exclusive Client Retreat was organised on 30<sup>th</sup> January 2025, facilitating stronger relationships and providing insights into upcoming innovations,



*An interaction during the Client Retreat*

solutions, and services in eyeNotes. Around 14 participants from eight hospitals attended the high-level discussions, gaining a deeper understanding of Auroitech's vision for the future.

On 1<sup>st</sup> February 2025, Auroitech celebrated its 2<sup>nd</sup> annual day by organising a Healthcare Technology Transformation conference, focusing on the evolving role of technology in healthcare. This conference brought together leading experts in the technical field to explore pressing issues and innovations transforming healthcare. The conference highlighted advancements in ERP, EMR, data engineering, and patient data security. The annual day celebration recognised teamwork and achievements of employees over the past year and outlined the vision for the future.

*Techxcellence Hackathon runners*







*At the 2<sup>nd</sup> Annual Day of Auroitech*



For a transformative experience, a Leadership Outbound Learning Programme, held from 6<sup>th</sup> to 8<sup>th</sup> March 2025 at Pegasus Institute, Pondicherry, proved to be an enriching and transformative journey for the 23 participating team members from various departments.

This three-day experiential learning programme was designed to strengthen core leadership skills through a blend of team-building activities, leadership

challenges, and reflective discussions. Participants were encouraged to step beyond their comfort zones, collaborate effectively, and think strategically under pressure. This programme marks a continued commitment to nurturing future leaders and creating a culture of growth, agility, and collaboration within the organisation.

*Auroitech staff with Senior leadership members during the 2<sup>nd</sup> annual day celebration*



# Employee Empowerment

*Aravind nurtures a vibrant and inclusive work culture through initiatives that promote engagement, continuous learning, and holistic well-being. Structured training programmes such as My Life My Pride, to empowering women employees particularly AOPs who constitute 64 percent of the Aravind's workforce, and initiatives such as Auroutsav, a programme to prone employee's skills and to promote harmony among all employees from doctors to admin staff, develop not just skilled professionals, but also confident, compassionate, and connected individuals. Refreshers programme, retreats, workshops, symposiums, and various initiatives, further strengthen their professional and personal life.*

## Department Activities

### Retreats

The Cataract Surgical Training Retreat was held on 5<sup>th</sup> July 2024 for participants from all Aravind Tertiary Eye Care Centres, providing a common platform for sharing and learning, and fostering continuous improvement in the quality of cataract care. Similarly, the 5<sup>th</sup> Annual Orbit Retreat was conducted on 8<sup>th</sup> January 2025 at Aravind-Madurai, focusing on streamlining examination and treatment protocols and standardising procedures across all orbit departments of AECS. The HR Retreat for Regional HR Directors from all five zones, AOP Doctors In-charge, and HR Managers, organised by the Central HR Office at Aravind-Madurai, worked on developing a framework for strategic HR planning for the next 1-3 years.

### Library Week

Library Week at Aravind was a unique annual event aimed at spreading knowledge. This year, the library team collaborated to organise various activities for postgraduates and AOPs across Aravind libraries in Madurai, Coimbatore, Tirunelveli, and Pondicherry on 22-27 July 2024. Events included an online research skills test for postgraduates, a photo quiz to test observational skills by identifying eye



*Participants of the Cataract Surgical Training Retreat*



*Doctors from various Orbit Departments across AECS, engaging in discussion during the Orbit Retreat*



*Participants of the HR Retreat*





*Participants of the Meet and Greet – Insurance Symposium*

conditions and treatments from educational images, and an exciting treasure hunt within the library.

### **Programme for Aravind Staff Support - PASS 2024**

This special programme was conducted at Aravind Eye Hospitals in Tirunelveli and Pondicherry on 24<sup>th</sup> November 2024 and 22<sup>nd</sup> December 2024, respectively, for all married AOPs and Vision Centre staff, along with their family members, recognising their contributions and aimed to enhance their understanding of hospital operations. The event served as a platform for fostering unity and friendship among team members, professional growth, strengthened family engagement, and highlighted the collective efforts of the vision centre team.

### **Meet and Greet – Insurance Symposium**

The Insurance Central Office, Aravind-Madurai, organised a Symposium at Aravind-Chennai, on 9<sup>th</sup> February 2025 provided a valuable platform for Aravind's insurance staff to engage in discussions, explore industry trends, address challenges, and gain insights into insurance modalities. The programme

effectively answered staff queries and facilitated meaningful interactions and rapport-building with industry experts.

### **Training Programme**

#### **Technology Skills Transfer Course 2024**

The first-of-its-kind one-day course held at Aravind-Pondicherry, on 25<sup>th</sup> August 2024, aimed to equip staff members to learn, innovate, and enhance their technical skills on basic video editing & movie making, creating impactful PPT slides, managing a social media page, photo essay & case report publication using ChatGPT & generative AI for voiceovers and scripts, 3D designing & printing, and virtual reality immersive learning.

#### **Writathon 2025**

Aravind-Tirunelveli, 10<sup>th</sup> January 2025

Alongside dynamic discussions and insightful presentations, participants showcased their creativity through case reports, photo essays, ophthalmic images, and original article submissions, setting a new benchmark for academic and creative excellence.

*Postgraduates taking a quiz at Aravind-Tirunelveli*



*Staff members engaging in a fun activity with their families*





*PASS 2024: Recognising the contributions of the Aravind staff family*



*Introducing Virtual Reality Immersive Learning method for training doctors in developing their surgical skills*

## Building Connections

Auroutsav 2024, the annual event of Aravind Eye Hospitals, was celebrated in a grand manner across the centres at Madurai, Tirunelveli, Tirupati, Salem, Theni, Chennai, and Pondicherry. Each centre adopted unique activities under the theme “Symphony of Colours”.

This vibrant week-long celebration, held on different days at the various centres, featured a wide variety of events, performances, and activities that fostered teamwork among employees. Staff members, divided into teams, showcased their special talents in diverse competitions. Each performance was evaluated by external judges drawn from various institutions and fields.



*Aravind-Madurai*



*Aravind-Tirunelveli*



*Aravind-Tirupati*



*Aravind-Pondicherry*



*Aravind-Salem*



*Aravind-Theni*



*Aravind-Coimbatore*



## Arangam

The Arangam, Aravind Intramural Conference, was conducted on 8-10 November 2024 to encourage learning, continuous improvement, and innovation among all staff members of Aravind Eye Hospitals. A total of 320 participants from all departments of Aravind centres participated in four parallel tracks: Care, Focus, Heal, and Train. In total, there were 290 innovative presentations, and 54 participants won prizes.



## Making a difference

As part of the Resident Social Responsibility (RSR) programme, residents from Aravind-Madurai joined hands with the Suvadugal Organisation to organise a self-awareness event at various government schools in Madurai on 23<sup>rd</sup> July - 9<sup>th</sup> August 2024.

At the programme held at the Government Girls Higher Secondary School in Mahaboopalayam, Kaakkai Padiniyar Girls Higher Secondary School in Chinna Chokkikulam, and Velli Veediyar Girls Higher Secondary School in Arapalayam, where around 60 selected girls from the 9<sup>th</sup> and 11<sup>th</sup> grades were provided with educational kits containing a bag, notebooks, a pen kit, a tiffin box, a water bottle, and a set of uniforms. Further residents conducted sessions on importance on general eye care, and menstrual hygiene.

On 1<sup>st</sup> January 2025, as part of RSR's flagship event, 'Vaanavil,' Aravind-Madurai organised an event, providing a platform for the visually challenged women from the Rehabilitation Centre, Mannarpuram, Trichy, to showcase and sell their handmade products, such as colourful and attractively printed bags, pouches, candle holders, incense sticks, towels, pillows, cushion covers, wire baskets, and bed sheets. Aravind staff thronged the exhibition and purchased items. This programme fostered empowerment and self-reliance among these visually challenged women.



## CMEs, CPEs, Workshops for Aravind's Allied Ophthalmic Personnel (AOP)

### Workshop on Care and Maintenance of Ophthalmic Equipment and Instruments

Aravind-Tirunelveli, 21<sup>st</sup> September 2024

Over 88 skilled optometrists and biomedical engineers from Tamil Nadu, Kerala, and Uttar Pradesh attended the workshop, which offered comprehensive training through PowerPoint presentations, instructional videos, and live demonstrations on the maintenance, cleaning, and repair of various ophthalmic instruments.



*Dr. Sathya T. Ravilla presenting on Relooking at Patient Safety Protocols at the CME*

### CME on Optometry

Aravind-Salem, 1<sup>st</sup> December 2024

The CME featured 12 talks, three case presentations, scientific lectures, a quiz contest, and an exhibition showcasing low vision aids (LVA), practical retinoscopy, vision therapy, and optical lenses and frames. The event was attended by 459 participants from across Tamil Nadu, Kerala, and Karnataka.

### Counselling CME

Aravind-Madurai, 5-6 January 2025

The CME aimed to enhance the skills and knowledge of counsellors, ensuring they were equipped to provide the best support and guidance to patients. The session engaged counsellors in discussions, helping them understand the purpose of protocols, learn from real incidents, and refine their approaches to addressing patient needs.

### CME on Optometry: From Basics to Advanced

Aravind - Tirunelveli, 30<sup>th</sup> March 2025

The CME for optometry faculty, students, and postgraduates, fostered mutual understanding between the two pillars of children's health namely paediatrics and ophthalmology.

### CME on Refraction in Clinical Practice

Aravind-Madurai, 21-23 March 2025

The internal CME aimed to equip participants with the latest knowledge and techniques in refraction. A total of six training tracks were arranged, dividing participants into groups focusing on PG power neutralisation, progressive lens marking with layout cards, binocular vision assessment and binocular balancing, the duochrome test, and central fields.

*Participants of the CME on Refraction in Clinical Practice*







## My Life My Pride

Launched in 2022, the My Life My Pride programme aimed to groom AOPs to become physically and emotionally stronger, supporting them in leading happy and healthy lives. Active in all centres across Aravind, the structured programme focuses on three key areas: personal counselling, life skills development, and extracurricular activities. As part of this initiative, Aravind hospitals in Madurai, Tirunelveli, Chennai, Tirupati, Pondicherry, Theni, and Dindigul conducted various training classes in Taekwondo, Karate, dance, and tailoring, while engaging AOPs in sports and other activities to bring out their hidden talents.

At Aravind-Tirupati, AOPs participated in Taekwondo, dance, and tailoring classes of their choice over a six-month period. The Taekwondo trainees took their grade exams for yellow-1 and green belts on 2<sup>nd</sup> June 2024. After six months of training, they received three belts, which were commemorated with a certificate awarding ceremony on 28<sup>th</sup> June 2024. Additionally, AOPs holding green belts won three gold medals and one silver medal at the Kyorugi Championship 2024, held on 14<sup>th</sup> July 2024. The dance club AOPs also performed at the Tirumala Tirupati Devasthanam Brahmotsavam on 11<sup>th</sup> October 2024.

During Auro Revive – Relax, Rejoice & Rejuvenate, an employee well-being event held at Aravind-Tirunelveli on 2<sup>nd</sup> September 2024, AOPs who completed tailoring and Aari work training were presented with certificates. Yellow belts and certificates were also awarded to those who completed six months of basic Karate training. A six-month certified tailoring course commenced at Aravind-Madurai with an inauguration on 7<sup>th</sup> November 2025. Twenty-four AOPs enthusiastically participated in the course, learning useful stitching techniques.



*Aravind-Tirupati: AOPs winning Gold and Silver medals at the Kyorugi Championship 2024*



*Dance performance by Aravind-Tirupati AOPs during the Tirumala Tirupati Devasthanam Brahmotsavam*



*Tile breaking by an AOP*



*Aravind-Tirunelveli: AOPs performing karate*



*Aravind-Chennai: AOPs performing a dance*



*Inauguration of Tailoring class at Aravind-Madurai*

# Recognitions and Achievements

## RECOGNITIONS

### AHPI - TN Excellence Awards 2024

Theni, 15<sup>th</sup> June 2024

Aravind-Theni was awarded with the Excellence in Quality Award 2024 under the category “Best Single Specialty Hospital Below 100 Beds’ in Central Zone” at the conference organised by the Association of Health Providers India (AHPI).

### Pasumai Valaham (Green Campus) Certificate

Tirunelveli, 14<sup>th</sup> November 2024

Appreciating its efforts in preventing river pollution and conserving the environment, Aravind-Tirunelveli received the Pasumai Valaham certificate from the Tirunelveli Corporation.

### Farm Fest 2025

Pondicherry, 7-9 February 2025

For the eighth consecutive year, Aravind-Pondicherry won several prizes at the Farm Fest 2025, conducted by the Department of Agriculture and Farmers’ Welfare, Government of Puducherry: First prize in the cacti and succulents category, second prize in the kitchen garden category, and a special prize in the ornamental garden category.

### Dr. K.V. Thiruvengadam Award for Health Care 2024-2025

Aravind-Chennai, 4<sup>th</sup> February 2025

Aravind Eye Care System (AECS) was honoured with the Dr. K.V. Thiruvengadam Award for Health Care 2024-25 by the Rotary Club of Madras East and Kauvery Hospital, in recognition of its outstanding contributions to eye care and public health.

### Asia’s Top Private Hospitals 2025

Aravind-Madurai

Aravind Eye Hospital, Madurai, was recognised as one of Asia’s Top Private Hospitals 2025 for cataract surgery by Newsweek and Statista, based on peer recommendations, accreditations, and certifications.

### Alumni Award

Madurai, 7<sup>th</sup> April 2024

Dr. P. Namperumalsamy, Chairman Emeritus, AECS, was awarded with the illustrious Alumni Award at the Platinum Jubilee Celebration of Thiagarajar

College, Madurai, for his outstanding contribution to perpetuating the reach of quality eye care to the poor and needy through active community involvement, screening camps, and establishing IT enabled vision centres in rural areas.

### Dr. Ranjan Akhoury Oration Award

Patna, 13<sup>th</sup> April 2024

Dr. R. Ramakrishnan, Advisor, Aravind-Tirunelveli, was honoured with the Dr. Ranjan Akhoury Oration Award at the Annual meeting of Patna Ophthalmic Society (POSCON).

### Dr. KGR Nair Oration Award

Thiruvananthapuram, 5<sup>th</sup> May 2024

Dr. S.R. Rathinam, Chief, Uvea Services, Aravind-Madurai, received the Dr. KGR Nair Oration Award at Reflection 2024, the annual conference of Trivandrum Ophthalmic club, held under the aegis of the Kerala Society Ophthalmic Surgeons (KSOS). Title: *My journey in uveitis*

### Padma Shri Award

Delhi, 9<sup>th</sup> May 2024

Dr. G. Natchiar, Director Emeritus, AECS, received the prestigious Padma Shri Award from the honourable President of India, Smt. Droupadi Murmu, at the second Civil Investiture Ceremony held at Rashtrapati Bhavan, New Delhi.

### Guru Dronacharya Award 2023

Punjab, 6-7 July, 2024

Thulasiraj Ravilla, Director-Operations, AECS, was honoured with the prestigious Guru Dronacharya Award 2023 at the 18<sup>th</sup> edition of Vision 2020: The Right to Sight-INDIA national conference. This award recognises his excellence in the field of community eye care and his commitment to mentoring eye care institutions across a comprehensive set of systems over several years.

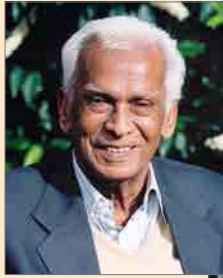
### Dr. GV Lifetime Achievement Award

Pondicherry, 25<sup>th</sup> August 2024

Dr. R. Venkatesh, Chief Medical Officer (CMO), Aravind-Pondicherry, was honoured with the Dr. GV Lifetime Achievement Award by the Akila India Samuga Nala Amaippu, Pondicherry.



## Padma Shri Awardees of Aravind Eye Care System



1973

*Dr. G. Venkataswamy receiving the Padma Shri Award from the Honourable President of India Dr. V.V. Giri*



2007

*Dr. P. Namperumalsamy receiving the Padma Shri Award from the Honourable President of India Dr. A.P.J. Abdul Kalam*



2024

*Dr. G. Natchiar receiving the Padma Shri Award from the Honourable President of India Smt. Droupadi Murmu*

### TNOA Lifetime Achievement Award

Chennai, 16-18 August 2024

Dr. R. Ramakrishnan was honoured with the TNOA Lifetime Achievement Award at the 71<sup>st</sup> Annual Conference of Tamil Nadu Ophthalmic Association (TNOA).

### Asia Cornea Foundation Saiichi Mishima Award 2024

Indonesia, 26-28 September 2024

Dr. N. Venkatesh Prajna, Chief, Cornea & Refractive Surgery Services, Aravind-Madurai, was honoured with the Asia Cornea Foundation Saiichi Mishima Award 2024, in recognition of his lifelong contribution and achievements in Corneal Research work performed in Asia, at the 9<sup>th</sup> Asia Cornea Society Biennial Scientific Meeting (ACS 2024).

### Global Innovator Award 2024

Mumbai, 4-5 October 2024

Dr. R. Kim, CMO, Aravind-Madurai & Director - Auroitech, was honoured with the Global Innovator Award 2024, at the Global Digital Health summit 2024, held at the Jio World Convention Centre, Mumbai. Title: *AI first healthcare: Healthcare in the age of Generative AI*

### Dr. M.S. Boparai Oration Award 2024

Varanasi, 14 - 15 December 2024

Dr. Usha Kim, Chief, Orbit & Oculoplasty Services, Aravind-Madurai, was honoured with the Dr. M.S. Boparai Oration Award 2024 at the 16<sup>th</sup> Annual Conference of Ocular Trauma Society of India (Kashi Ophthal TRAUMACON) in recognition of her outstanding contribution to the field of ocular trauma.

AHPI - TN Excellence Award 2024 to Aravind-Theni:  
Dr. Dipankar Datta receiving the award



Dr. R. Ramakrishnan receiving the Pasumai Valaham certificate  
from Dr. N. O. Sukhaputra, IAS, Commissioner, Tirunelveli  
Corporation



Dr. R. Venkatesh and Dr. K. Veena felicitating Farm Fest  
participants recognising their efforts



Dr. Aravind Srinivasan, receiving the Dr. K.V. Thiruvengadam  
award on behalf of the organisation



Asia's Top Private  
Hospitals 2025 certificate  
to Aravind-Madurai from  
Newsweek and Statista



Thiagarajar College honours  
Dr. P. Namperumalsamy  
with Illustrious Alumni  
Award



Dr. R. Ramakrishnan receiving the  
Dr. Ranjan Akhoury Oration Award

Dr. S.R. Rathinam being  
honoured with the  
Dr. KGR Nair Oration  
Award



Guru Dronacharya Award to Thulasiraj Ravilla  
during the Vision 2020 Conference, Punjab





Dr. R. Venkatesh receiving the Dr. GV Lifetime Achievement Award

Global Innovator Award 2024 to Dr. R. Kim



Dr. N. Venkatesh Prajna receiving the Asia Cornea Foundation Saiichi Mishima Award 2024



Mega Women Lifetime Achievement Award to Dr. G. Natchair



Dr. Usha Kim receiving the Dr. M.S. Boparai Oration Award 2024



Dr. Haripriya being honoured by Shri. R.N. Ravi, Governor of Tamil Nadu



Dr. N. Venkatesh Prajna receiving the Ronald G. Michels, MD Lectureship Award

Dr. R. Ramakrishnan receiving the AGS 2025 International Scholar Award at the AGS Annual Meeting



Dr. P. Sundaresan being appointed as an ICMR- Emeritus Scientist



Dr. P. Namperumalsamy at the release of the White Coat Legends Video Documentary

### White Coat Legends Video Documentary on Dr. P. Namperumalsamy

Madurai, 28th December 2024

A video documentary honouring the visionary journey of Dr. P. Namperumalsamy, was launched by Mankind Pharma.

### International Scholar Award

USA, 1<sup>st</sup> March 2025

Dr. R. Ramakrishnan was honoured with the AGS 2025 International Scholar Award by the American Glaucoma Society (AGS) at its annual meeting.

### Mega Women Lifetime Achievement Award 2025

Chennai, 8<sup>th</sup> March 2025

Dr. G. Natchiar was honoured with the Mega Women Lifetime Achievement Award 2025 for academic, management, service excellence, and outstanding contribution to women empowerment, at the International Women's Day Programme hosted by the MEGA TV Channel.

### Women's Day Award

Chennai, 8<sup>th</sup> March 2025

Dr. Haripriya Aravind, Chief, Cataract Services, Aravind – Chennai, was felicitated by Shri. R.N. Ravi, Governor of Tamil Nadu, with a citation and a shawl, for her distinguished services in Ophthalmology on the eve of International Women's Day at Raj Bhavan, Chennai.

### ICMR - Emeritus Scientist

Dr. P. Sundaresan, Senior Scientist, Molecular Genetics, Aravind Medical Research Foundation (AMRF) was appointed as an ICMR-Emeritus Scientist by the Indian Council of Medical Research (ICMR) for a term of three years, to continue his biomedical research at AMRF,

focusing on the project entitled, *Molecular genetics in ocular diseases: Pathways to personalised medicine, with special emphasis on Leber's Congenital Amaurosis (LCA) and Leber's Hereditary Optic Neuropathy (LHON)*.

### Ronald G. Michels, MD Lectureship Award in Cornea, Cataract and External Disease

USA, 20<sup>th</sup> March 2025

Dr. N. Venkatesh Prajna was honoured with the Ronald G. Michels, MD Lectureship Award during his visit as an invited guest speaker at the Wilmer Eye Institute, Johns Hopkins University School of Medicine, USA. He delivered the prestigious Ronald G. Michels Lectureship on 'Eminence vs Evidence'.

## ACHIEVEMENTS

### APAO-APOIS Image Competition 2025

Dr. Sameer Chaudhary, Medical Consultant, Aravind-Madurai, secured the Runner-up Prize in the "Seeing is Believing" category at the APAO-APOIS Imaging Competition, conducted by the Asia Pacific Ocular Imaging Society. He received a complimentary badge to participate in the 40<sup>th</sup> Asia-Pacific Academy of Ophthalmology (APAO) Congress, along with a cash prize of US\$50 and a certificate. Title: *The lens on life: Bending the rays of sight and hope*

### 50<sup>th</sup> Annual Meeting of the American Society of Cataract and Refractive Surgery (ASCRS)

USA, 5-8 April 2024

Video Award: Glaucoma Surgery Category

- Winner - Dr. R. Venkatesh; Title: *Ab interno Schlemm's canal surgery: A comprehensive guide to navigating the canal with precision – touch, tear, and thread the canal*
- Runner-up - Dr. Haripriya Aravind; Title: *From soil to sight: An inconceivable invasion*



Dr. Sameer Chaudhary, securing the Runner-up Prize at the APAO-APOIS Imaging Competition





Video Award: Special Interest Category

Runner-up - Dr. K. Veena, Chief, Paediatric Ophthalmology & Adult Strabismus Services, Aravind-Pondicherry; Title: *Fostering innovation in ophthalmology: A spotlight on Hackathon*

Best Paper of Session

- Dr. Haripriya Aravind; Title: *Comparative analysis of intraoperative sub-conjunctival depot steroid to routine topical steroids and NSAIDs in phacoemulsification*

Podium Presentation - High Impact Pearl session

- Winner - Dr. V.R. Vivekanandan, Chief, Cataract - General Ophthalmology Services, Aravind - Pondicherry

### 12<sup>th</sup> International Congress on Glaucoma Surgery

UAE, 18-20 April 2024

Dr. R. Sharmila, won the best video award for her video titled, *When things go bleak, there is always a silver lining: Quadruple procedure in microspherophakia*.

### Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO) 2024

USA, 5-9 May 2024

Sethu Nagarajan, Senior Research Fellow, and Shreya Dinesh, Research Fellow, AMRF, received the ICMR and the SERB Travel Grants, respectively. Additionally, Shreya

*Dr. R. Sharmila receiving the best video award*



Aravind doctors at ASCRS 2024, held in the Boston Convention & Exhibition Center, Massachusetts, USA

Dinesh's poster was selected as a Hot Topic during one of the sessions.

### DNB Gold Medal Award

New Delhi, 10<sup>th</sup> May 2024

Dr. B. Harinikrishna, Medical Consultant, Aravind-Kovilpatti, and Dr. A. Saranya, Paediatric Medical Consultant, Aravind-Salem were awarded with the Dr.G.Venkataswamy Gold Medal in ophthalmology for achieving the highest marks in the Diplomate of National Board (DNB) in Ophthalmology.

### 10<sup>th</sup> Intraocular Implant and Refractive Society of India (IIRSI) Convention 2024

Chennai, 6-7 July 2024

Dr. Apurva Nagtode, Cornea Fellow, Aravind-Pondicherry, won the grand

prize at the film festival for her video titled, *AB-Interno Schlemm's canal surgery: Touch, tear, and thread technique*.



Grand prize to Dr. Apurva Nagtode at the film festival of IIRSI conference

*Dr. G. Venkataswamy Gold Medal Award to Dr. B. Harinikrishna*



*Dr. G. Venkataswamy Gold Medal Award to Dr. A. Saranya*





Sumathy A. receiving the Best Paper Award at Vision 2020 conference



Vikky Kumar M. receiving the Best Poster Award at Vision 2020 conference



Raichel R. receiving the Best Paper Award at Vision 2020 conference

### Vision 2020: The Right to Sight India

Punjab, 6-7 July 2024

#### Best Paper Award

- Winner - Raichel R, Assistant Manager, Quality, Aravind-Pondicherry; Title: *Performing successful cataract surgery through digital monitoring: GoProLive*
- Winner - Sumathy A, Manager, HR, Aravind-Pondicherry; Title: *Repurposing: An interesting approach to eye care waste*

#### Best Poster Award

- Winner - Vikky Kumar M, Manager-Quality & Inpatient Services, Aravind-Tirunelveli; Title: *Comparison of efficacy of vision centres and comprehensive eye camps in detection of specialty cases*

### 5<sup>th</sup> World Congress of Paediatric Ophthalmology and Strabismus (WCPOS)

Malaysia, 11-13 July 2024

#### Poster Village

- 2<sup>nd</sup> Place - Dr. Sathya T. Ravilla, Medical Consultant, Paediatric Ophthalmology & Adult Strabismus Services, Aravind-Tirupati; Title: *Creating a smartphone app to improve compliance to Brock String therapy*
- 3<sup>rd</sup> Place - Dr. Marie Fredrick Mouttapa, Medical Consultant, Paediatric Ophthalmology & Adult Strabismus Services, Aravind-Pondicherry; Title: *Eyes at risk: Exploring vernal conjunctivitis and its link to keratoconus prevalence*

#### Video Kiosk

- 3<sup>rd</sup> place - Dr. Shashikant Shetty, Chief, Paediatric Ophthalmology & Adult Strabismus Services, Aravind-Madurai; Title: *A case of periodic alternating skew deviation*

Dr. Sathya T Ravilla, Dr. Shashikant Shetty, Dr. Marie Fredrick Mouttapa, and Dr. Kunjal Gala, were the prize recipients at the 5<sup>th</sup> WCPOS



### Free Paper (Adult Ophthalmology)

- 3<sup>rd</sup> Place - Dr. Kunjal Gala, DNB Resident, Aravind-Chennai; Title: *A comparative analysis of isolated ocular motor nerve palsies in patients above and below 50 years*



Dr. Hari Bhadari with the award at the Global Ophthalmology Summit

### Dr. David Hunter Cherwek Award for Global Ophthalmology at the 3<sup>rd</sup> Global Ophthalmology Summit (GOS)

USA, 9-11 August 2024

Dr. Hari Bhadari Anand, Junior Resident, Aravind-Pondicherry, won the prestigious 2024 David Hunter Cherwek, MD Award for Global Ophthalmology to his presentation titled, *Greening Eye Care: Environmental sustainability of telemedicine at a tertiary eye-care centre in South India.*



## 71<sup>st</sup> Annual conference of Tamil Nadu Ophthalmic Association (TNOA)

Chennai, 16-18 August 2024

### Best Free Paper Session

- Winner - Dr. Prithviraj U, Medical Consultant, Retina, Aravind-Madurai; Title: *Mastering modified Gabor's SFIOL technique from novice to expert: Comparison of surgical outcomes*

### TNOA ET Selvam Endowment Quiz Award

- Winner - Dr. Chinmay Vikas Mahatme, and Dr. Sujay Sanjay Jaju, PG Residents, Aravind-Coimbatore

### Free Paper Session – Cornea

- Winner - Dr. Divya Nachammai, PG Resident, Aravind-Coimbatore; Title: *Azadirachta indica: A novel natural approach effective in demodectic ocular surface disorders*

### Free Paper Session – Neuro

#### Ophthalmology

- Winner - Dr. Ruhel Kurudamannil Chacko, Resident, Aravind-Coimbatore; Title: *PULSE study: Efficacy of pupilmate in low-cost pupillary light reflex screening*

### Free Paper Session – Orbit

- Winner - Dr. Viji Rangarajan, Chief, Orbit Services, Aravind-Coimbatore; Title: *Hook, Line & Sink*

### Free Paper Session – Cataract

- Winner - Dr. Bala Saraswathy, Medical Consultant, Aravind-Coimbatore; Title: *Acute waterfall blindness*

### Free Paper Session – Glaucoma 2

- Winner - Dr. Rohan Daniel, Medical Consultant, Glaucoma Services, Aravind-Coimbatore; Title: *To compare the efficacy of 1st and 2nd generation probes of Micropulse Cyclophotocoagulation*

### Free Paper Session – Orbit 2

- Winner - Dr. Padmapriya Venkatraman, PG Resident; Title: *A scar for a scar. Scar release with full thickness skin grafting for cicatricial ectropion*

### Vinadi Vina – Quiz Session

- First Runner-Up  
Dr. D. Chandrasekhar, Medical Consultant, Aravind-Coimbatore, Dr. VR. Saravanan, Chief, Retina Services, Aravind-Coimbatore, Dr. Chinmay Vikas Mahatme, and Dr. Sujay Sanjay Jaju

### Dr. Velayutham Award for Best Free Paper in Glaucoma (2023)

- Winner – Dr. Devendra Maheshwari, Medical Consultant, Glaucoma Service, Aravind-Tirunelveli; Title: *Long-term outcomes of MMC trabeculectomy with subconjunctival injections versus sponges: A randomised controlled trial*

### Best Scientific Video in OPL

- Winner – Dr. V.R. Vivekanandan, Medical Consultant, Cataract and General Ophthalmology Services, Aravind-Tirunelveli; Title: *CTS my way*

### Best Paper in Glaucoma

- Dr. R. Madhavi, Medical Consultant, Glaucoma Services, Aravind-Tirunelveli; Title: *Outcomes of GATT in Juvenile Open-Angle Glaucoma (JOAG)*

### Best Paper in Cornea

- Dr. B. Harinikrishna; Title: *Demographic and clinical profile of patients presenting with corneal foreign body to secondary eye care centre in rural South India*

### Best Thesis

- Dr. Drishti, Postgraduate, Aravind-Tirunelveli; Title: *To assess the efficacy of combined phacoemulsification and microhook AB interno trabeculotomy in South Indian eyes with open angle glaucoma*

### Heroes of TNOA Award

- Winner - Dr. Puja Maitra, Medical Consultant, Retina-Vitreous Services, Aravind-Chennai

### Best Paper

- Winner - Dr. Divya J, PG Resident, Aravind-Chennai; Title: *Rare complications of optic nerve head melanocytoma*

- Winner - Dr. D. Raseena Atheek, PG Resident, Aravind-Chennai; Title: *Retrospective study of outcomes of Hemi-Hang back adjustable suture in horizontal rectus surgery*

### Quick Ophthal Quiz

- Winner - Dr. S. Sivaranjani, Medical Officer, Retina Services, Aravind-Pondicherry.

### TNOA Best Free Paper Award - Comprehensive & Community Social Ophthalmology

- Winner - Dr. Akshay Wagh, DNB Resident, Aravind-Pondicherry; Title: *Waste Segregation in Healthcare Facilities: Revenue generation and sustainable disposal*

### TNOA Capt. Subramanian Best Video Award

- Winner: -Dr. Premjith Muraleedharan, Cornea Fellow, Aravind-Pondicherry; Title: *Pythium keratitis v/s Fungal keratitis*

### Chen EyeCon Best Paper Presentation for Cornea – II

- Winner - Dr. Premjith Muraleedharan; Title: *Outcomes of intracameral and intrastromal voriconazole in deep stromal fungal ulcers in South India*

### Chen Eye Con Best Paper Presentation for Comprehensive Ophthalmology – V

- Winner - Dr. Vijay Antony, DNB Resident, Aravind-Pondicherry; Title: *Posterior segment disease diagnosis done by tele-ophthalmologists vs base hospital specialists*

## APOS Gopalakrishna Young Ophthalmologist Lecture & Medal

Tirupati, 13-15 September 2024

Dr. V.R. Vivekanandan was awarded the APOS Gopalakrishna Young Ophthalmologist Lecture & Medal at the 9<sup>th</sup> Annual Meeting of the Andhra Pradesh Ophthalmic Society (Tirupati Eyecon 2024).



Dr. V.R. Vivekanandan receiving the APOS Gopalakrishna Young Ophthalmologist Lecture & Medal



Sethu Nagarajan receiving the Young Investigator Award for Best Poster

### 33<sup>rd</sup> Annual Conference of Glaucoma Society of India – GlaucoCherry

Pondicherry, 27-29 September 2024  
Video Diagnostic Category

- First Prize – Dr. Megha G, Medical Consultant, Glaucoma Services, Aravind-Salem; Title: *One tap for a brighter world*

Best Glaucoma Pitch Innovator Award

- Dr. Shivam Gupta, Medical Consultant, Glaucoma Services, Aravind-Tirunelveli; Innovation: *Slit lamp gonio holder*

Dr. Sridhar B Rao Award – Free Paper

- Winner – Dr. Annamalai Odayappan, Medical Consultant, Glaucoma Services, Aravind-Pondicherry; Title: *Enhancing early*

*glaucoma detection through family screening to reduce glaucoma-related blindness*

Video Management Competitive Section

- Runner-up – Dr. Swati Upadhyaya, Medical Consultant, Glaucoma Services, Aravind-Pondicherry; Title: *Touch Tear Thread (TTT) the canal*

Video Diagnostic Category

- Second Prize – Dr. Devendra Maheshwari, Senior Medical Consultant, Glaucoma Services, Aravind-Tirunelveli; Title: *Anterior segment OCT: A holster for MIGS surgery*

Best Paper of the Session

- Winner – Dr. R. Sharmila; Title: *NPDS phaco -surgical outcomes*

### Judges' Choice Top Video Award

Aravind-Salem, 14<sup>th</sup> September 2024

Dr. G. Megha, Medical Consultant, Glaucoma, Aravind-Salem, won the Judges' Choice Top Video Award at a virtual contest organised by Young Ophthalmologists Society of India (YOSI), for her video titled, *Brightening lives through smartphone*.

### 34<sup>th</sup> Annual Conference of the Oculoplastic Association of India (OPAI)

Jaipur, 27-29 September 2024

- Dr. Preeti Mohanty, Chief, IOL & Cataract Services, & Medical Consultant, Neuro-Ophthalmology, Aravind-Tirupati, won the Best Free Paper Award for her paper titled, *Canalicular lesions in Pemphigus Vulgaris*.

### 30<sup>th</sup> Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO)-India 2024

New Delhi, 28-29 September 2024

Iswarya, Research Fellow, and R. Sethu Nagarajan, AMRF, received travel fellowships, and R. Sethu Nagarajan won the Young Investigator Award for his poster titled, *Patient-derived three-dimensional spheroid culture: A promising model for drug screening in retinoblastoma*.

Prize winners at the 33<sup>rd</sup> Annual Conference of Glaucoma Society of India







Award to Dr. Usha Kim at the AAO Conference

### American Academy of Ophthalmology (AAO) Annual Meeting 2024

USA, 18-21 October 2024

Dr. Usha Kim received the Best Original Paper of AAO 2024 Award in the Ocular Pathology and Oculoplastics category. Title: *Rapid and cost-effective molecular diagnosis of retinoblastoma*

### 3<sup>rd</sup> Mid-Term Conference of the All India Ophthalmological Society (AIOS)

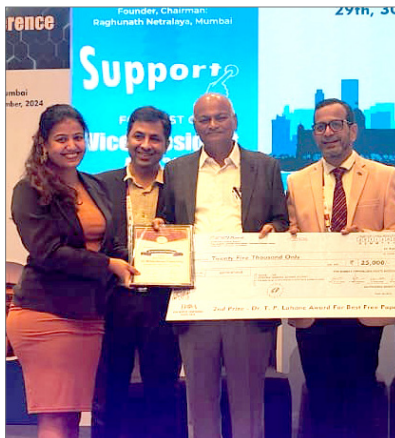
Dehradun, 25-27 October 2024

Best Physical Poster Award in Cornea, External Eye & Ocular Surface Disease Session

- Dr. Mevis Phonglo, Cornea Fellow, Aravind-Pondicherry; Title: *Trend of keratoconus pre & post COVID-19 in students in a tertiary eye care centre in South India* (Co-authors: Dr. Prashansa Yadav, Cornea Fellow, and Dr. Josephine Christy S, Chief, Cornea & Refractive Surgery Services, Aravind-Pondicherry)

Best Paper Award at the Cornea-II Session

- Dr. Garima Rath, Cornea Fellow, Aravind-Pondicherry; Title: *Factors influencing corneal haze post corneal collagen cross-linking in Keratoconus treatment* (Free Paper)



Dr. Tanya Nitin Balakrishnan receiving Dr. T.P. Lahane Best Paper Award at BOA

(Co-authors: Dr. Josephine Christy S, and Dr. Malathy M, PG Resident)

Best Paper of Session at the Glaucoma III Session

- Dr. Shivam Gupta, Medical Consultant, Glaucoma Services, Aravind-Tirunelveli; Title: *Outcomes of Gonioscopy assisted transluminal trabeculotomy in juvenile open angle glaucoma patients* (Free Paper)

(Co-authors: Dr. Devendra Maheshwari, Dr. Madhavi Ramanatha, and Prof. Dr. Ramakrishnan R.)

Best Subject Paper Award at the Glaucoma Session

- Dr. Nimrita Gyanchand Nagdev, Medical Consultant, Glaucoma Services, Aravind-Tirunelveli; Title: *Outcomes of gonioscopy assisted transluminal trabeculotomy in Primary Angle Closure Glaucoma (PAGG)* (Free Paper)

(Co-authors: Dr. Devendra Maheshwari, Dr. Madhavi Ramanatha Pillai, and Prof. Dr. Rama)

### 58<sup>th</sup> Annual Conference of U.P. State Ophthalmological Society

Meerut, 29<sup>th</sup> November-1<sup>st</sup> December 2024

Dr. P.K. Pandey Best Paper Award

- Winner - Dr. Sivaranjani, Medical Consultant, Retina-Vitreous

Services, Aravind-Pondicherry; Title: *Role of repeat Hemoglobin levels in infants with ROP*

Dr. V.N. Raizada Memorial Award

- Winner - Dr. Sivaranjani; Title: *Clinical and genetic findings of brothers with RDH 12 Retinopathy: A Serpiginous Choroiditis Mimicker*

Ophthalmic Wars

- Runner-up - Dr. Sameer Chaudhary, Medical Officer, General Ophthalmology, Aravind-Madurai; Title: *A battle of knowledge between teams through medical and surgical case presentations and ophthalmology quizzes.*

### 34<sup>th</sup> Annual Conference of Bombay Ophthalmologists' Association (BOA)

Mumbai, 29<sup>th</sup> November-1<sup>st</sup> December 2024

Dr. Tanya Nitin Balakrishnan, Retina Fellow, Aravind-Madurai, secured first runner-up of the Dr. T.P. Lahane Best Paper Award for her paper titled, *Role of Arteriovenous interposition in determining the outcomes in ST-BRVO*

### 33<sup>rd</sup> Annual Conference of the Vitreo-Retinal Society of India (VRSI)

Assam, 6-8 December 2024

Dr. K. Naresh Babu, Chief, Retina and Vitreous Services, Aravind-Madurai, secured third prize for his E-Video titled, *The unfurling technique: Surgically induced retinal detachment enhancing anatomical and functional outcome in grade 3 epiretinal membrane.*

Best Interesting Cases Award

- Dr. Sivadarshan, Medical Consultant, Retina and Vitreous Services, Aravind-Madurai. Title: *Worm in the eye!! Is it dead yet?*

Best Video Award

- Dr. Athul S Puthalath; Title: *Lens guard: A novel protection system for lenses used in ophthalmology*



Dr. Shreyas Sundardas Gore receiving second prize at the DRF Winter Meet



Dr. Harshini G.V. receiving third prize at the DRF Winter Meet

#### Best DR Slogan Award

- Second prize - Dr. Aswin PR, Medical Consultant, Retina and Vitreous Services, Aravind-Tirunelveli. Slogan: "Save your Sight – Get your sugars right" (World Diabetes Day)

#### Prof. P. Namperumalsamy Young Researcher Award 2024

- Winner - Dr. Siddharth Narendran, Medical Consultant, General Ophthalmology, Aravind-Coimbatore

#### Best Poster – DR Awareness Poster Competition

- 3<sup>rd</sup> Prize - Dr. Pawan V. Garde, Aravind-Pondicherry

#### 12<sup>th</sup> Annual National Conference of the Cornea Society of India - KERACON 2024

Bengaluru, 6-8 December 2024

##### Best of Best Video Category

- Second Place - Dr. Premjith Muraleedharan; Title: *Corneal OPD simulation* (Co-author: Dr. R. Naveen Medical Consultant, Cornea, Aravind-Pondicherry)

#### Delhi Retina Forum (DRF) Winter Meet 2025

New Delhi, 19<sup>th</sup> January 2025

EuroVersion – India: Video Presentation Selection Round

- Second Prize - Dr. Shreyas Sundardas Gore, Retina Fellow, Aravind-Madurai; Title: *Live Rescue – Exorcising the worm: Novel use of viscous fluid extractor for parasitic extraction*
- Third Prize - Dr. Harshini G.V, Retina Fellow, Aravind-Madurai Title: *Treasure in the trash: Submacular CNVM removal surgery*

#### Vitreo-Retinal Society–India (VRSI) Image Competition

Dr. Rajiv Pardasani, Retina Fellow, Aravind-Madurai, won first place in the VRSI Image Competition – February 2025, for his image titled, *Managing chronic retinal detachment with Cyst: The efficacy of scleral buckling*, while Dr. Jigu S. Krishn, Retina Fellow, Aravind-Madurai, secured second place with his image titled, *Spotlight on sight*.

#### 6<sup>th</sup> International Conference on Genome Biology (ICGB) & 56<sup>th</sup> Aqua-Terr Annual Day

Madurai, 28<sup>th</sup> February – 1<sup>st</sup> March 2025

Sneha, Junior Research Scholar, Department of Immunology and Stem Cell Biology, AMRF, won the First Prize in Oral Presentation for her paper titled, *MiRNAs associated with the maintenance of human trabecular meshwork stem cells: Changes with ageing and in glaucoma*.

#### Winners of AIOS - Fellowship of the All India Collegium of Ophthalmology (FAICO) Exam 2024

##### Retina

Retina Fellows and Medical Consultants from Aravind-Madurai: Dr. Swikruti Jena, Dr. Subhodeep Thakur, Dr. Rasiga R, Dr. Keya Chakrabarti, Dr. Chakpram Priyalaxmi, Dr. Vignesh Elamurugan, Dr. Preethi S, and Dr. Tanya Balakrishnan; Aravind-Tirunelveli: Dr. P R Aswin; Aravind-Pondicherry: Dr. Usha Tejeswini S, and Aravind-Tirupati: Dr. Devika Bhattacharya Mandlik, and Dr. Kunduru Sruthi,

##### Paediatric Ophthalmology & Strabismus

Aravind-Madurai: Dr. Elackiya, and Dr. Nithya Sridharan; Aravind-Tirunelveli: Dr. Anupama Janardhanan; Aravind-Coimbatore: Dr. Sasikala Elizabeth Anilkumar

##### Glaucoma

Aravind-Madurai: Dr. Indira Durai, Dr. Ann Mary Mathews, and Dr. Kumar Siddharth; Aravind-Tirunelveli: Dr. Shivam Gupta, and Aravind-Chennai: Dr. Yamini K

**Cornea** - Dr. Bennet Chacko Mathew, **Orbit** - Dr. Padmapriya, Dr. Renu Bansal, **IOL** - Dr. Fayisa Musthafa; **Uvea** - Dr. Meera Mohankumar, Aravind-Coimbatore



# Aravind Eye Foundation

April 2024 to March 2025

Now in its 25<sup>th</sup> year, Aravind Eye Foundation (AEF) was founded to support the Aravind Eye Care System and spread sustainable, high-quality, patient-centric eye care throughout the world. Aravind's main operations pay for themselves; the foundation acts as a catalyst to develop new programmes and expand successful initiatives.

Foundation board members and advisors come from a variety of fields, including clinical care and medical research, public health, accessible technology, cyber security, venture capital, educational design, market research and analytics, and healthcare management – all contributing their unique talents to fulfill the mission of the founder, Dr. G. Venkataswamy, and eliminate needless blindness for all.

## Removing all barriers to high-quality eye care

Eye cancer requires expensive, complex and lengthy care, involving family counselling, radiology and imaging, surgery, chemotherapy, rehabilitative care, and genetic testing. Through the Ring of Hope (ROH), Aravind provides full treatment to children and adults with eye cancers, completely free of cost. **This year, treatment for 69 new patients and 1980 follow-up visits were covered under ROH.**

Some patients, like Diwakar and his sister Rithika, have been coming to Aravind since they were born. Diwakar and their mother had both lost an eye to retinoblastoma, a virulent and often inherited form of cancer, primarily affecting children under the age

of five years. At 12 days old, Rithika was diagnosed with cancer in both eyes. Because it was caught so early, Aravind doctors were able to save her sight and life. Today, they are both cancer-free – Diwakar is studying engineering and Rithika is in 9<sup>th</sup> grade. Thanks to the SoHum Foundation for their founding gift and continuing support of the ROH. **AEF extends its gratitude to the donors on behalf of the 921 patients** whose lives have been changed or saved through their support since its inception.

Gowri Karuvizhi Kakkum Thittam supports patients suffering from corneal ulcers, a common affliction among farmers and day laborers, who are most at risk and may struggle to pay for the medicines and travel costs essential for follow-up care. It is the practice that any member of the cornea team can recommend a patient for free care. Thank you to the Gowri Family Foundation for supporting this work since 2021 and **helping treat 1521 patients.**

## Reaching the underserved and providing exceptional outcomes

Aravind's 117 Rural Vision Centres cover a population of approximately 12 million and can provide 90% of basic vision care, from vision screening and spectacles to surgical follow-up. All patients are first seen by highly trained technicians, followed by a telemedicine visit with an ophthalmologist, who reviews results and prescribes treatment.

*Retinoblastoma survivors Diwakar and Rithika (siblings) each standing to the right of Dr. Usha and Donna in the second row*



*Eye examination at an AEF supported Vision Centre*





*My Life My Pride - Tailoring classes at Aravind -Theni*

Twenty-one centres have been funded by the Aravind Eye Foundation since 2011; this past year **nearly 200,000 patients visited and more than 25,000 received eye glasses** from these centres.

The most common vision problem in the world can be solved with the simplest solution – a pair of eye glasses. This year Aravind's Spectacle for Scholars programme **screened 304,032 students and 13,280 received free spectacles.**



*School screening and spectacle distribution programme at the Saliar Mahajana Higher Secondary School, Aruppukottai*

With support from the Madison Community Foundation, Aravind continues to integrate school screening into vision centres. This programme seeks to reach students who might be missed by traditional school screenings and to raise awareness about the importance of eye care within the whole community. This past year, the programmes in Madurai and Tirunelveli **screened 76,673 students from 362 schools and referred 7,081 children for follow-up at their local vision centre.**



*Karate demonstrations at Aravind - Tirunelveli*

## **Building capacity and resilience to meet the demands of tomorrow**

Now in its third year, My Life My Pride provides **counselling, life-skill development, and extracurricular activities to the 1934 AOPs, admin, facility coordinators, and general staff** who support every aspect of Aravind's work. The programme has been rolled out to Madurai, Chennai, Tirupati, Tirunelveli, Pondicherry, Coimbatore, Salem, Theni, and Dindigul hospitals so far, and includes activities, such as Taekwondo, tailoring, book club, dance, english-language lessons, as well as group and individual counselling.

Aravind has always been known for its innovative approach to eye care. Aravind Centre for Eyecare Innovation (ACEi) aims to give all staff across the Aravind network the tools to develop new eye care solutions. Currently, ACEi labs **manage 32 projects, and 16 prototypes have been completed** and are moving into pilot testing.

Aravind's health-care consulting group, Lions-Aravind Institute of Community Ophthalmology (LAICO) is dedicated to improving eye care outcomes and volumes internally, as well as in Aravind's partner hospitals. With support from the YieldGiving Foundation, LAICO has embarked on a multi-year initiative to support leadership development, upgrade essential technology and infrastructure, and support eye hospitals in underserved regions.

Aravind Eye Foundation is deeply grateful to the many supporters and friends who believe that eliminating needless blindness is not an aspiration, but a necessity. Thank you for being part of Aravind's 50 year journey.

*"Much has been done, Much remains to be done."  
From the journals of Dr. G. Venkataswamy*





# Partners in Service

Aravind Eye Care System acknowledges the support and contributions of like-minded individuals and organisations in its mission to eliminate needless blindness. Their commitment has helped the organisation brighten the lives of many.

## For service delivery, training and more

- Access Health care, Chennai, India
- Alcon Laboratories Inc, USA
- A.L Shah, Pondicherry, India
- Aravind Eye Foundation, USA
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- Lakshmi Eye Care Support Services (LLP), Tamil Nadu, India
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- University of Michigan, USA
- USAID, USA
- VISION 2020 - The Right to Sight, New Delhi, India
- World Diabetes Foundation, Denmark
- World Health Organization, Switzerland
- XOVA: Excellence in Ophthalmology Vision Award, USA

## For research

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- Arthur Asirvatham Hospital, Madurai, India
- Aurolab, Madurai, India
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- Remidio Innovative Solutions Pvt. Ltd, Bengaluru, India
- Thiagarajar College of Engineering, Madurai, India
- Vellore Institute of Technology, Vellore & Chennai

### Management Support to Eye Hospitals

Aravind Eye Care System, through Aravind Eye Hospitals and LAICO, provides holistic assistance in establishing and effectively running eye hospitals. It offers management services to socially committed partners working in underserved areas of India and other developing countries, helping them adopt proven systems and processes.

- Priyamvada Birla Aravind Eye Hospital, Kolkata, India (since 2001)
- Sudarshan Netralaya, Amreli, India (since 2007)
- Tulsi Chanrai Foundation Eye Hospital, Abuja, Nigeria (since 2018)
- Sitapur Eye Hospital, Uttar Pradesh, India (since 2021)



*S. Rajesh, Manager - Community Outreach & Eyebank, Aravind-Chennai with the Tulsi Chanrai Foundation Eye Hospital team*

*Aravind team at Sitapur Eye Hospital*





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KALAISELVI A.K

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K. KUMAR

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S. SUBRAMANIAN, BE

#### Manager-Human Resource

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Vision Centre

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## ANAESTHETIST

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P.S. KRISHNAVENI

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I. SERAN, MBA (HM); FEHM  
Manager Accounts & Finance  
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IT & Systems  
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Dr. ANUPAMA JOY, DO, DNB

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Dr. KUMAR HARIHARAN, MS, DNB, FRCS  
Dr. VARUNA ABINETHRI M, MS  
Dr. GOWTHAM KIM, MS  
Dr. LAKSHANA M.L, MS  
Dr. KEERTHANA S, MS  
Dr. AARTHI SUDHA B, MS  
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Dr. JACINTHA, DNB, DA

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Dr. MANOPRAKASH MANOHARAN. MBSS

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Manager – Community Outreach & Eye Bank  
RAJESH, B.SC, MSW, PG.DIPLOMA  
Manager - Quality Assurance  
RIYAH JAITIKA, PGDHM  
Manager - Store  
SHOBHA J, MCA, MA, DOA, DBM

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### Chief Medical Officer

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### Chief

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### Medical Consultants

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DR. D.V. NAVANEETHA, DNB

## NEURO OPHTHALMOLOGY SERVICES

### Medical Consultants

DR. PREETI MOHANTY, MS, DNB

DR. P. BHUVAN KALYAN, MS

## GENERAL OPHTHALMOLOGY SERVICES

### Medical Consultant

DR. P. BHUVAN KALYAN, MS

DR. LAHARI SRIRANGA, MS

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## MICROBIOLOGY

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### Manager-Patient Care

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### Outreach Camp Manager

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### Medical Director Designee

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MOORTHY P R, MBA, ACS, ACA

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