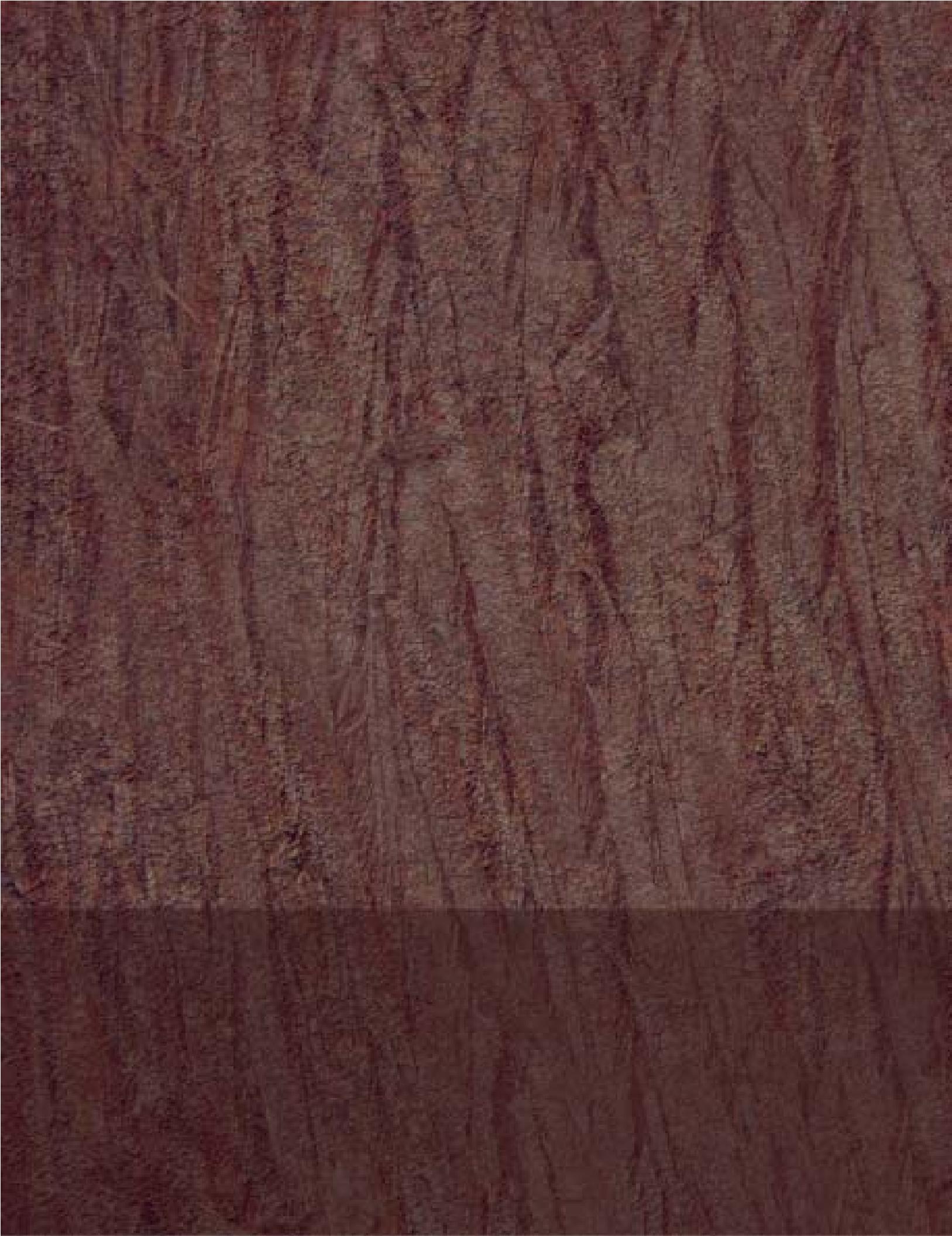


**2011
2012**

activity report

ARAVIND EYE CARE SYSTEM





*"My light shall be in thee, my strength thy force.
Let not the impatient Titan drive thy heart,
Ask not the imperfect fruit, the partial prize.
Only one boon, to greaten thy spirit, demand;
Only one joy, to raise thy kind, desire.
Above blind fate and the antagonist powers
Moveless there stands a high unchanging Will;
To its omnipotence leave thy work's result.
All things shall change in God's transfiguring hour."*

– ‘Savitri’ by Sri Aurobindo
Canto IV : The Vision and the Boon



CONTENTS

ACTIVITY REPORT APRIL 2011 - MARCH 2012

Highlights	7
Patient Care	15
Education and Training	25
Consultancy and Capacity Building	33
Research	39
Manufacturing Ophthalmic Supplies	47
Central Functions	53
Awards and Accolades	59
Partners in Service	64
Trustees and Staff	66

Photo Credits

*Devi Kayalvizhi, Aravind-Tirunelveli
Dr. Vivekanandan, Aravind-Madurai
Jacques Vekemans, France
Mike Myers, USA
Priya, Aravind-Pondicherry
Rajkumar, Aravind-Madurai
Sasipriya, LAICO-Madurai
Senthil Kumar, Aravind-Coimbatore
Sukumar, Aravind-Pondicherry
Suresh Kumar, Aravind-Madurai
Susie Van Sickle, USA
Vijayakumar, Aurolab
Willie Davis, USA*

ARAVIND EYE CARE SYSTEM

VISION *Eliminate needless blindness...*

MISSION

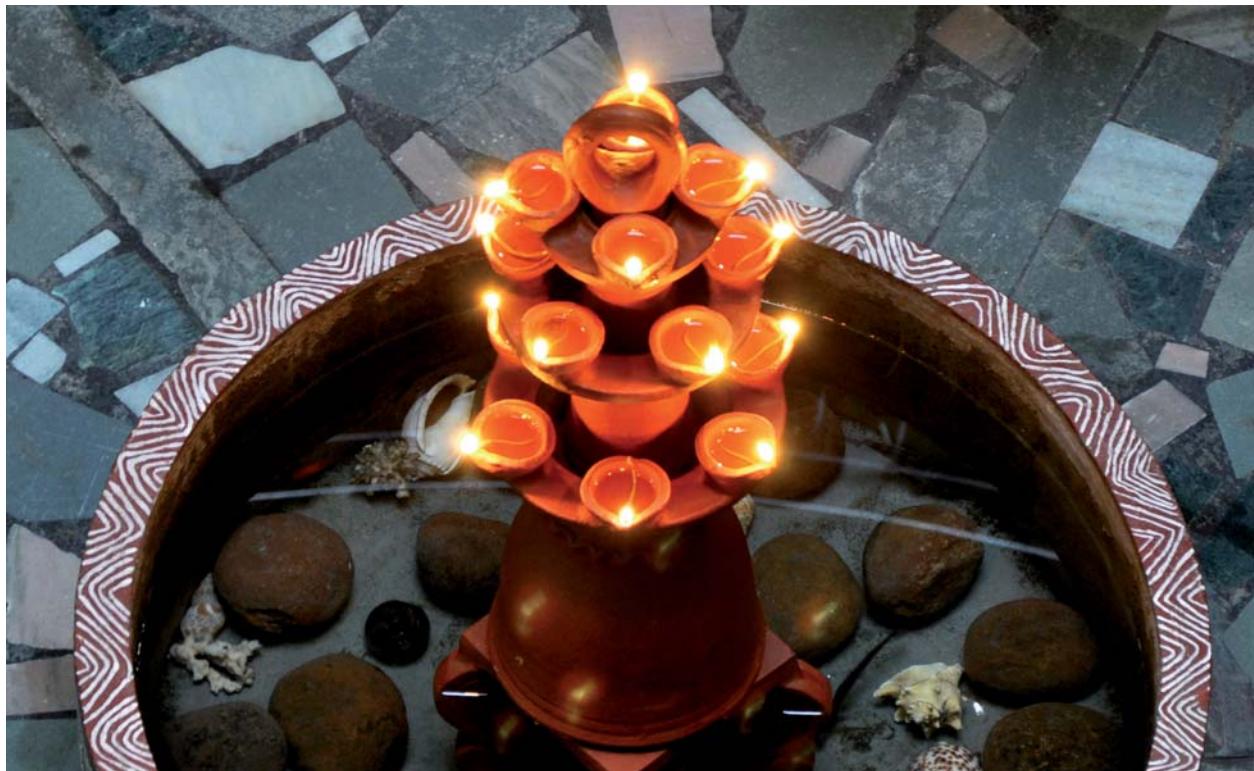
PATIENT CARE *...by providing compassionate and high quality eye care for all*

EDUCATION & TRAINING *...by developing ophthalmic human resources through teaching and training*

CONSULTANCY &
CAPACITY BUILDING *...through capacity building, advocacy, research and publications*

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

OPHTHALMIC SUPPLIES *...by making high quality ophthalmic products affordable and accessible to the vision impaired worldwide*





The banyan tree in front of the centre was planted by Dr. V on March 21, 2005. The tree has become the symbol of the centre, representing perpetuity of Dr. V's vision. The centre is named 'Nithyatha', the sanskrit word for perpetuity.

At the inauguration of 'Nithyatha'



Dr. V's battle against needless blindness, on the one hand, is fought in hospital clinics, outreach camps, and operating rooms, where the challenges of preventable and treatable diseases are daily encountered in endless quantity and the truths and principles of science predominate.

On the other hand, seeing meant more to Dr. V than getting light to the retina.

It was about illuminating the inner life and recognising the deep spiritual reality which connects everything in the visible and ever-changing manifest world of our daily external reality...

It is a battle against ignorance, anger, differences, intolerance, greed, unkindness, injustice and hatred – all forms of blindness.

– Dr. Bill Stewart at the inauguration of Nithyatha

HIGHLIGHTS

APRIL 2011 - MARCH 2012

Keeping the Flame Alive

The Aravind Eye Care System's three and a half decades of growth and evolution have been driven by its commitment to providing patient centred care with integrity and compassion. An aspiration to sustain this simple, yet powerful approach down the ages, led to the inauguration of 'Nithyatha' - a retreat centre that celebrates the life, work and vision of Aravind's remarkable founder, Dr. G. Venkataswamy. The centre was inaugurated on October 2, by long-time friend and partner in sight, Dr. R. Pararajasegaram. It was a ceremony of profound elegance attended by hundreds of well-wishers. Sri. Vijay Poddar, Sri Aurobindo Society, Pondicherry; Dr. Bill Stewart, Institute for Health and Healing, California; Dr. S.R. Krishnadas and Ms. Deepa Krishnan from Aravind Eye Care System offered felicitations. They shared stories about their association with Dr. V and the tremendous impact he has made on so many lives.



Dr. R. Pararajasegaram presenting the memento to Mr. Gnanaraj, the architect of Nithyatha

The meditation hall



The gallery depicting the story of Dr. V's life



The library



The amphitheatre



An Encouraging New Trend

In recent years there has been a welcome change in the health seeking behavior of patients in the community. An increasing number of people in need of eye care are now showing up at hospitals on their own initiative rather than passively waiting for an eye camp, or as was far too often the case, doing nothing at all to address their condition. This encouraging shift in behavior is the fruit of thirty five years of intense work in the community – decades of taking high quality care to their very doorstep and doing everything that needed to be done to ensure that even the most impoverished villagers could access treatment on their own terms. Having repeatedly experienced the instant and tangible benefits of treatment, the community now sees value in accessing care as soon as the need is felt. Every fifth person in India is in need of some form of eye care, and with this changing trend, the demand will continue to increase. It is now time for the providers to come up with innovative ways to address this.

A Conscious Decision to Expand

Today Aravind's limited network of facilities provides close to 40% of all eye care in Tamil Nadu. In view of the new patient trends, a decision was taken to significantly expand Aravind's network, starting with those areas from which high numbers of patients were traveling significant distances to reach Aravind. The first major initiative following this decision was the inauguration of a large tertiary care Aravind Hospital in Salem on November 27. This 42,000sq.ft. facility will cater to the eye care needs of people across the spectrum in and around Salem. Guided by the same strategic thinking, an eye clinic was opened on July 1 in downtown Pondicherry. To further improve rural access, a series of new vision centres was opened at Pongalur, Oothukuli, Srivilliputhur and Kadayanallur. Two more hospitals will be inaugurated soon – a hospital in Tuticorin on May 4th and one in Udumalpet in June of 2012.

Dr. Natchiar with Dr. Manohar Babu and the Aravind– Salem team



Sharing the Story

During the year, another important event that renewed Aravind's spirit of service was the release of the much-awaited book 'Infinite Vision: How Aravind Became the World's Greatest Business Case for Compassion', published by Berrett-Koehlers, USA and Harper Collins, India. It was the culmination of multiple years of research and dedicated work by co-authors Ms. Pavithra Mehta and Ms. Suchitra Shenoy. The book launch in the United States took place on November 5 in Berkeley, California. The Indian launch followed on January 29 and related events were hosted across several cities in both countries. Written in engaging narrative form, this book studies the evolution, philosophy, organisational model, struggles and future of Aravind Eye Care System. It is creating ripples across diverse spheres; social entrepreneurship, public health, corporate business and academia.



Dr. P. Namperumalsamy and Ms. Pavithra Mehta with Mr. U. Sagayam, District Collector, Madurai and Mr. P. Kannappan, Police Commissioner, Madurai at the 'Infinite Vision' book launch

Ms. Suchitra Shenoy and Ms. Pavithra Mehta





Mr. G. Srinivasan, President, GOVEL Trust presenting the Dr. G. Venkataswamy Endowment Oration Award to Dr. Marilyn T. Miller. On the right are Dr. P. Vijayalakshmi and Dr. P. Namperumalsamy

In Dr. V's Memory

The third Dr. G. Venkataswamy Endowment Oration Award was presented to Dr. Marilyn T. Miller, Professor of Ophthalmology, University of Illinois at a beautiful function held at LAICO auditorium. Dr. Miller's Oration lecture was titled "International collaboration, mentoring and teaching—a personal view". Dr. Miller is a longstanding participant in international ophthalmology, especially in educational activities in a number of countries. Her involvement with Aravind started three decades ago when Dr. Vijayalakshmi, Chief, Paediatric Ophthalmology Service, Aravind-Madurai joined the paediatric ophthalmology section of the University of Illinois as a fellow. Since then, Dr. Miller has visited Aravind multiple times, participating in courses and meetings. More recently she has been working with Dr. Vijayalakshmi on a study of infants with microphthalmia in a rural community in India.



Dr. Pararajasegaram and Dr. G.N. Rao with Mr. R.D Thulasiraj at the inauguration of the Workshop on Eye Care Research Priorities for India

Each year, LAICO organises the October Summit in honor of Dr. Venkataswamy's tireless efforts to expand the boundaries of eye care. In 2011, a national workshop to define research priorities to generate the evidence and practices required for achieving the goal of eliminating avoidable blindness in India was held on October 8 and 9. On October 21 and 22, the workshop on patient safety and outcomes focused simultaneously on building systems and developing a healthy attitude towards recognising and reporting errors so that appropriate steps could be taken to prevent them in the future. The last in this series, the workshop on Molecular Diagnostic Methods for Ocular and Systemic Pathogens, was jointly organised by Aravind and the Indian Association of Medical Microbiologists, of Tamil Nadu and Pondicherry.

A Commitment to Transferring Knowledge

Training and education have always been important for Aravind which has long recognised that high quality patient care is possible only with a well-trained and motivated workforce. To strengthen its training activities and to promote the same elsewhere, AUROSHIKSHA, a web portal geared to assist ophthalmic educators, was launched on July 25 by Dr. P. Namperumalsamy, Chairman – Emeritus of Aravind Eye Care System at a function graced by Dr. Suzanne Gilbert from SEVA Foundation, USA and many others. AUROSHIKSHA is an initiative of LAICO developed with support from the Seva Foundation.

For the third time, Aravind Eye Hospital, Tirunelveli took the lead in organising the 59th Annual Meeting of the Tamil Nadu Ophthalmic Association (TNOA). This well organised and well attended meeting was further enriched by the presence of India's former President, HE Shri Dr. APJ Abdul Kalam, who inaugurated the workshop and inspired the ophthalmologists in his inimitable way.

Aravind's internal training capabilities were further enhanced by a cutting-edge 3D surgery recording and viewing system. A generous gift made possible by well-wisher Dr. David Chang of the United States, this camera makes it possible for trainees to witness surgical nuances in far greater detail.



Jagriti Yatris at Aravind – Madurai

Aravind Madurai appears to have become a favorite stop on the Jagriti Yatra each year. In 2011, for the 3rd consecutive year, Aravind was visited by a group of roughly 400 young "service pilgrims" who spent the day observing and learning about the organisation's work. The visitors brought with them brimming enthusiasm, a sense of adventure and a keen aspiration to find innovative solutions that benefit the greater good. The Aravind Eye Care System was delighted to play a small role in fostering their journey.

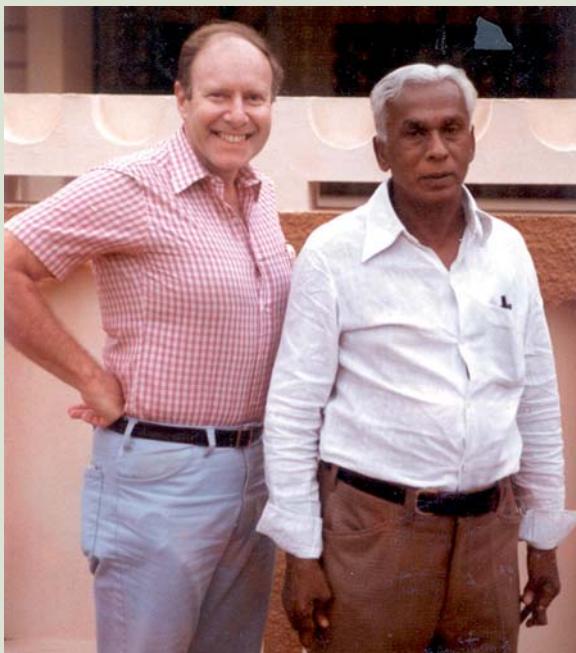
Dr. R. Ramakrishnan and Dr. P. Namperumalsamy with Dr. APJ Abdul Kalam at the inauguration of TNOA's Annual meeting



Strengthening Eye Care Management Programmes

Jointly sponsored by the International Agency for the Prevention of Blindness and the World Health Organization, the Regional Workshop on Prevention of Avoidable Blindness and Visual Impairment in South East Asia Region was conducted at LAICO. This session was attended by government officials and other representatives from nine different countries in this region. Each representative presented his/her country's current status in eye care and discussed the main challenges and bottlenecks to service delivery. The focus was on achieving universal coverage, as well as the creation of monitoring systems and identifying potential areas for international collaborations.

Recognising LAICO's innovative approach and its positive impact on issues in the eye care industry through capacity building, focused training and research, the Federation of Indian Chambers of Commerce and Industry (FICCI) presented it with the Health Care Award at a grand award ceremony, held in New Delhi on September 8.



Dr. Carl Kupfer with Dr. V

Homage to Dr. Carl Kupfer (1928-2011)

Dr. Carl Kupfer was appointed as the first director of NEI when it was established in 1968 and stepped down from his position as director on July 15, 2000 at 72 years of age.

Dr. Carl Kupfer was a good friend and a strong supporter of Aravind. Dr. V's and Aravind's association with him goes back many decades.

At Aravind, he will always be cherished as the one who sowed the seeds of research way back in 1981 and built Aravind's initial capacity in it.

Through his championing of operations research, epidemiologic studies and randomised clinical trials, Dr. Kupfer has left a lasting legacy in ameliorating vision loss from cataract and a number of major eye diseases, including Eale's Disease, diabetic retinopathy and glaucoma.



Dr. Paul Palmberg with the Aurolab AADI team

Two Decades of Continuous Innovation

Aurolab's continuous innovations in the manufacture of eye care products have significantly influenced the way eye care is being delivered to millions. Completing two decades of excellent service, the institute has come up with a wide array of eye care products, the most important one being the Aurolab Aqueous Drainage Implant (AAI), a cost-effective drainage device used in management of glaucoma refractory to conventional glaucoma treatment. The silicone lab was inaugurated on August 15. With a fully equipped silicone lab in place, Aurolab in co-ordination with Aravind's Orbit, Oculoplasty and Ocular Oncology Service has started developing stents for lacrimal intubation and prosthetics.

To mark the twentieth anniversary, elaborate celebrations were organised in January 2012. Cultural performances staged by the staff added colour to the whole event, which was distinguished by the presence of the entire senior leadership team and staff of Aravind.



Aurolab staff performing a cultural programme at Aurolab's 20th anniversary celebrations



Research Advisory Committee members Dr. M.R.S. Rao and Dr. C. Mohan Rao at the ongoing research projects poster presentation during the Committee meeting

Unravelling the Mystery of Eye Diseases

Multidisciplinary studies are being conducted at the Dr. G. Venkataswamy Eye Research Institute to understand the biological mechanisms of several age-related eye diseases. These studies pave the way to improving existing treatment modalities. The institute has been named a 'Center of Excellence in Human Mycotic Keratitis' – a rare distinction, endowed by the Government of India's Department of Biotechnology. It is the first center of its kind in the country. The results of this study will enable the institute to develop an effective drug for this disease, to which resistance cannot be easily developed.

View of the garden in front of Aravind-Pondicherry-Thane effect



Weathering the Storm

The serene work at Aravind Eye Hospital, Pondicherry was severely disrupted by the devastating cyclone 'Thane'. Nature's fury unleashed lashing rain and winds raging at 150 km/h, resulting in extensive damages to the hospital as well as the rest of Pondicherry. The cyclone struck on December 30 – the eve of a planned congregation (subsequently cancelled) of the Aravind family in Pondicherry to celebrate the New Year. Unwelcome as they are, disasters often do summon the best of the human spirit. This truth was seen in full effect at Aravind Pondicherry, where the team rallied together to care for their patients despite the extensive damages, power outages and shortage of essential commodities. Staff members whose homes were damaged were supported financially and otherwise. Thanks to the valiant work of the collective, just three months after what was described as one of Pondicherry's biggest natural disasters, there was little trace of its visit on the hospital grounds.

PATIENT CARE



Patient care and eliminating needless blindness continue to be the primary focus of Aravind's work.

This priority is evidenced by the continuous growth in the sheer numbers of people served year after year. In the year ending March 2012, Aravind handled 2,838,689 outpatient visits and performed 349,274 surgeries – a 10% increase from the previous year.

To put the numbers in perspective, just the increase alone, of 34,000 surgeries, exceeds what most large hospitals perform in a year.

Such growth is possible only because of the trust that the patients place in the Aravind organisation and, more importantly, the Aravind team, which builds such trust through their hard work and compassionate endeavours.

Performance

April 2011 - March 2012

	Madurai	Theni	Tirunelveli	Coimbatore	Pondicherry
OUTPATIENTS					
Paying (new+review)	493,950	74,795	246,744	335,078	223,136
Free (new+review)	155,328	21,247	67,484	110,866	71,431
OUTREACH					
Comprehensive free eye camps	106,986	20,731	45,963	82,263	64,865
Diabetic retinopathy screening camps	4,619	3,346	1,639	19,521	3,938
Refraction camps	14,783	2,872	5,792	18,377	5,160
School eye screening					
- through base hospitals	4,273	1,294	2,710	12,855	10,005
School eye screening					
- through vision centres	685	464	507	655	678
School eye screening by Lavelle project	-	-	22,290	-	29,120
Paediatric eye screening	2,203	2,301	23,149	1,225	15,617
Mobile van refraction camps	-	7,109	-	-	-
Vision centres	88,366	46,387	43,241	28,472	24,138
Community eye clinics (including city centre)	74,945	19,031	49,812	-	8,269
TOTAL OUTPATIENT VISITS	946,138	199,577	509,331	609,312	456,357
SURGERIES					
Paying	68,540	6,440	26,417	40,055	22,414
Free (direct + camp)	73,864	6,039	24,629	45,845	28,546
TOTAL SURGERIES	142,404	12,479	51,046	85,900	50,960
SURGERIES IN DETAIL					
Cataract surgeries	94,301	9,686	32,932	53,211	33,232
Trab and combined procedures	2,335	180	1,155	2,042	756
Retina and vitreous surgery	3,828	28	785	3,196	1,044
Squint correction	1,061	-	246	628	291
Keratoplasty	813	3	429	827	212
Pterygium	1,670	195	296	1,030	612
Ocular injuries	400	14	133	502	378
Lacrimal surgeries	2,950	115	1,024	908	1,030
Laser procedures	26,301	1,975	11,467	18,760	9,752
Other orbit and oculoplasty surgeries	3,125	195	1,055	1,622	1,297
Others	2,881	88	778	2,098	1,512
Refractive surgery	2,739	-	746	1,076	844
TOTAL SURGERIES	142,404	12,479	51,046	85,900	50,960

Tirupur	Dindigul	Salem	Total
36,469	57,355	19,332	1,486,859
114	-	-	426,470
-	-	-	320,808
-	-	-	33,063
-	-	-	46,984
-	613	-	31,750
-	-	-	2,989
-	-	-	51,410
-	-	-	44,495
-	-	-	7,109
4091	-	-	234,695
-	-	-	152,057
40,674	57,968	9,332	2,838,689
2,024	2,949	1,451	170,290
61	-	-	178,984
2,085	2,949	1,451	349,274
1,683	2,109	822	227,976
34	20	14	6,536
-	1	18	8,900
-	-	-	2,226
-	-	2	2,286
11	31	30	3,875
-	2	6	1,435
28	-	6	6,061
259	716	507	69,737
44	48	8	7,394
26	22	38	7,443
-	-	-	5,405
2,085	2,949	1,451	349,274



Key to the ground-breaking Aravind approach is a unique 'assembly-line' treatment method that increases productivity by a factor of ten, combined with an innovative non-profit model that uses the fees of wealthier patients to subsidise free service delivery to the bulk of its poorer clientele.

– 2012 Top 100 Best NGOs
by The Global Journal

The new Inpatient building at Aravind – Madurai became fully functional since April 2011.

Aravind–Salem was inaugurated in November 2011, and the city centre at Pondicherry was inaugurated in July 2011. Aravind – Tuticorin is gearing up for its inauguration in May 2012. With state-of-the-art amenities and infrastructure, these facilities will address expanding eye care needs and improve access.



Dr. Aravind, Dr. Prajna and Dr. Manohar Babu with the chief guests, Hon. Justice Thiru. P. Sathasivam, Judge, Supreme Court of India, and Thiru. Maharabhushanam, IAS, District Collector, Salem during the inauguration of Aravind–Salem

The chief guest Mr. R. Chandramohan, IAS, Chief Secretary, Govt. of Pondicherry with Dr. R.D. Ravindran, Dr. Venkatesh, Dr. K. Tiruvengada Krishnan and Mr. Kanagaraj at the inauguration of Aravind – Pondicherry City Centre



City Centre,
Aravind – Pondicherry



CLINICAL UPDATES

Cataract Service

The implantable Contact Lens (ICL) procedure has been initiated at the Cataract and IOL Service at Aravind Eye Hospitals. Several CMEs were conducted towards this initiative with support from Staar Surgicals. ICL implantation is indicated in patients with high myopia and not eligible for LASIK. Spherical and toric ICLs have been performed with good postoperative results.

Glaucoma Service

Selective Laser Trabeculoplasty (SLT) has been introduced as an additional modality of treatment for Primary Open Angle Glaucoma. A multi-centred randomised clinical trial to study the efficacy of SLT as a primary procedure compared to medical treatment is currently in progress.

Aurolab Aqueous Drainage Implant (AADI) is an indigenous low-cost glaucoma drainage device for management of refractory glaucoma developed by Aurolab. Dr. Paul Palmberg, Professor of Ophthalmology at Bascom Palmer Eye Institute, trained Aravind's glaucoma specialists in the implantation of this device.

Glaucoma detection by analysing colour fundus images based on an automated algorithm jointly developed by Aravind and the International Institute of Information Technology, Hyderabad, has been validated and is awaiting clinical trials.

Dr. Paul Palmberg interacting with the nurses of Glaucoma Service, Madurai



Paediatric Ophthalmology Service

A new surgical approach, the Yokohama Procedure, has been initiated in highly myopic patients with Heavy Eye Syndrome, and excellent results were documented. The department has also started performing Minimal Incision Strabismus Surgery (MISS) on selected patients. This technique involves approaching the muscles through a small incision made on either side of the muscle. The incision is smaller than the conventional technique and allows for better cosmesis in addition to preserving the conjunctival blood supply to the anterior segment of the eye.

The department facilitated the A2Z Child Blindness Program's Regional Capacity Building Workshop, which aimed to help eye care organisations, expand access to other funding opportunities and, ultimately, increase the overall quality and impact of paediatric eye care programs.

Cornea Service

Cornea service introduced C-3-R: Collagen cross linking using Riboflavin / UVA in May 2011 for patients with progressive / advanced keratoconus. Improvement was seen in a significant number of cases. A few cases in the paediatric age group were done under general anesthesia.

Penetrating Keratoplasty with sutureless intrascleral PC IOL implantation was started in November 2011. This provides a viable alternative for aphakic bullous keratopathy without PC support or Pseudophakic bullous keratopathy with decentred PC IOL / AC IOL needing lens exchange. It is presently done in conjunction with the Retina Service.

The department has acquired Confocal Microscopy, an invaluable tool in etiological diagnosis of deep keratitis and in the understanding of various diseases at the cellular level, and it is being used for studying cellular changes in corneal ulcers, pathogenesis and risk factors for perforation.

Cornea Service at Coimbatore has been performing Descemet's Stripping Endothelial Keratoplasties (DSEK) by manual dissection since 2010. Its sutureless grafting technique helps in faster recovery and increased

comfort for the patient. Also, the anterior and posterior lamellar keratoplasties increase the overall tissue utilisation. During 2011–2012, the department has done 51 DSEKs. The overall tissue utilization has been increased from 40% (2010–11) to 58.5%.

The Refractive surgery centre at Aravind – Coimbatore registered record performance in June 2011 when 154 procedures were done, of which 99% were Zyoptix procedures.

Eye Bank

The eye bank which was previously functioning in the Cornea Service at Aravind – Pondicherry, moved to a separate area on May 11. Eye banks across the Aravind centres procured a total of 3,779 eyes, of which 1,839 were used for transplantation. Various awareness programmes were conducted on the occasion of eye donation fortnight celebration.



Eye donation awareness rally at Madurai

Orbit, Oculoplasty and Ocular Oncology Service

The ongoing ICMR project for the National Retinoblastoma registry has been extended for another two years. 127 new retinoblastoma patients registered during the last year have been treated successfully.

Aurostents and Aurospheres were developed under the initiative of the department in the specially set up silicone lab of Aurolab. These have been successfully implanted in many patients. The department is in the process of developing an animated video on oculoplastic surgical techniques.

Retina Service

The use of prefilled syringes of Avastin for intravitreal injection was introduced at all the Aravind Eye Hospitals for safety and to prevent infections.

Sutureless scleral-fixated IOL was introduced and has become the standard procedure for all secondary IOLs. Recently, clear corneal, no suture, no flap, no glue IOLs have been introduced.

Penetrating keratoplasty with sutureless intrascleral PCIOL implantation was started in November 2011 in conjunction with the Cornea Service.

Heavy Brilliant Blue Green (BBG) was developed in association with Aurolab for staining of the preretinal membranes.

The Retina Service in Madurai developed the new, low-cost fundus camera “3 Nethra” for the Bangalore based company Forus.

The department was instrumental in identifying the source of, and successfully managing a cluster of cases of endophthalmitis secondary to *Burkholderia* that occurred in a private practice setting.

The Retina Service at Coimbatore has started a separate paediatric retina clinic for retina patients below the age of 15.

The reading and grading centre at the Retina Service at Madurai has added three more diabetes hospitals in Chennai and Vellore for tele-screening of diabetic retinopathy.

Quality Assurance Practices

Active steps have been taken to standardise processes and protocols across all the Aravind Eye Hospitals. Towards this end, a separate Quality Assurance team has been formed to monitor and guide the activities of the different departments. In order to strengthen the delivery system, Aravind is currently involved in working towards accreditation through National Accreditation Board for Hospitals (NABH). It is also remodeling medical records, developing standard protocols, documenting training programmes and so on. Clinical forms across all the hospitals have been standardised. Standard treatment guidelines were developed by all the clinics, which will serve as a tool for conducting medical audits. The medical records deficiency audit has been redesigned, and steps have been taken to make the organisation conform to government regulations. Performance monitoring indicators have been introduced in all the clinical and non-clinical departments. Separate mechanisms have been developed and put in place to give priority to vulnerable patients.

REACHING OUT



Aravind's extensive community outreach programmes invest tremendous energy in reaching out to rural patients through various kinds of eye camps and vision centres.

2,831 camps were conducted, through which 1,035,826 patients were screened and 85,721 patients underwent surgery in the year ending March 2012.

Refraction camps were extended to other target groups, including members of Parent Teacher Associations in schools and employees of Tamil Nadu State Transport Corporation and so on.

The focus now is on establishing more vision (primary eye care) centres with low-cost telemedicine facilities offering real-time consultation with ophthalmologists in the base hospitals. A total of 234,695 patients were examined through the 40 vision centres in the year ending March 2012.

SightFirst seminar at Aravind – Coimbatore



SightFirst Seminar on Diabetic Retinopathy (DR)

The annual SightFirst seminar for the office holders of Lions Clubs to educate them on common eye diseases was held at Aravind – Coimbatore on September 25 with an emphasis on diabetic retinopathy. Around 140 members from different clubs participated. Screening for diabetes and diabetic retinopathy was done for the members.

Annual Outreach Planning Meeting

The annual meticulous planning for outreach work fixed targets for the camp organisers for a period of 3 years towards achieving optimum cataract surgical rate. The meeting analysed their performance, and a brain storming session was held to discuss strategies to reach the targets. Strategies to further improve the conduct of camps and develop cordial relationships with camp sponsors, thereby ensuring active community participation, were also discussed during the meeting. Camp medical officers, camp organisers, managers and administrative assistants attended the meeting which was held at Aravind-Tirunelveli during the first week of December.

Three among the twenty four camp organisers – P. Jeyaram, S. Selvam and K. Harikrishnar, were selected for the Dr. G. Venkataswamy Award for outstanding performance in outreach for having achieved 100% of their annual target.

Awareness Creation Programmes

Extensive programmes were organised by Aravind Hospitals on World Diabetes Day to make the public aware of the escalating problem of diabetes and its associated diseases, especially diabetic retinopathy.

Massive awareness campaigns were organised by the different Aravind Hospitals on the occasion of World Glaucoma Week, mainly to sensitise the public to the seriousness of this silent blinding disease.

Outreach staff at the annual planning meeting at Aravind-Tirunelveli



New Vision Centres

The total number of vision centres became 40 with the opening of four more during 2011–2012 at Pongalur (July 16), Uthukuli (August 18), Srivilliputhur (September 15) and Kadayanallur (December 5).

These vision centres play a vital role in educating the community on the need for proper eye care, by creating awareness through counselling, mass communication, and by conducting training programmes and speciality screening camps on various occasions.

Ms. Sulochana, Nursing superintendent, Aravind-Coimbatore lighting the lamp at the inauguration of Uthukuli vision centre



Outreach Performance

April 2011 - March 2012

	Madurai	Theni	Tirunelveli	Coimbatore	Pondicherry	Tirupur	Dindigul	Total
1. Regular Comprehensive Eye Camps								
Camps	351	106	275	371	255	-	-	1,358
Patients examined	106,986	20,731	45,963	82,263	64,865	-	-	320,808
Glasses advised	19,885	5,481	10,275	18,410	16,192	-	-	70,243
Glasses ordered	16,480	4,974	8,369	15,052	13,945	-	-	58,820
On the spot deliveries	12,767	3,156	5,637	13,452	9,448	-	-	44,460
%	77%	63%	67%	89%	68%	-	-	76%
2. Diabetic Retinopathy Screening Camps								
Camps	28	26	14	109	19	-	-	196
Patients screened	4,619	3,346	1,639	19,521	3,938	-	-	33,063
Diabetics identified	2,295	1,763	686	5,411	1,502	-	-	11,657
DR Patients identified	327	269	135	1,009	171	-	-	1,911
3. Refraction Error Camps								
Camps	59	14	27	68	27	-	-	195
Patients examined	14,783	2,872	5,792	18,377	5,160	-	-	46,984
Glasses prescribed	5,013	1,061	1,798	5,735	1,542	-	-	15,149
Glasses Ordered	4,442	927	1,442	4,790	1,219	-	-	12,820
On the spot deliveries	3,293	591	868	3,198	746	-	-	8,696
%	74%	64%	60%	67%	61%	-	-	68%
4. Eye Screening of School Children- BH*								
Schools	39	8	14	33	33	-	2	129
Teachers trained	188	94	42	400	88	-	2	814
Total strength-children screened	53,366	16,269	19,431	68,009	51,538	-	813	209,426
Children examined by ophthalmologist	4,273	1,294	2,710	12,855	10,005	-	613	31,750
Children with eye defects	2,663	750	938	4,964	3,423	-	32	12,770
5. Eye Screening of School Children - VC*								
Schools	6	4	2	4	4	-	-	20
Teachers trained	30	34	4	-	1	-	-	69
Total strength-children screened	6,671	4,943	4,581	3,444	4,744	-	-	24,383
Children examined by ophthalmologist	685	464	507	655	678	-	-	2,989
Children with eye defects	323	299	272	238	275	-	-	1,407
6. School Children Screening Camps by Lavelle Project (AEH - TVL & PDY)								
Schools	-	-	258	-	145	-	-	403
Teachers trained	-	-	754	-	518	-	-	1,272
Total Strength-children screened	-	-	164,696	-	184,862	-	-	349,558
Children examined by ophthalmologist	-	-	22,290	-	29,120	-	-	51,410
Children with eye defects	-	-	8,509	-	7,994	-	-	16,503
7. Paediatric Camp								
Camps	13	11	139	10	263	-	-	436
Children examined	2,203	2,301	23,149	1,225	15,617	-	-	44,495
Refractive error	222	114	417	91	384	-	-	1,228
Glasses prescribed	163	48	48	44	120	-	-	423
Glasses ordered	163	38	43	26	117	-	-	387
Other defects identified	176	107	380	143	594	-	-	1,400
8. Mobile Van Refraction Camps								
Camps	-	94	-	-	-	-	-	94
Patients screened	-	7,109	-	-	-	-	-	7,109
Glasses prescribed	-	2,394	-	-	-	-	-	2,394
Glasses ordered	-	2,037	-	-	-	-	-	2,037
9. Vision Centres								
Centres	14	8	6	5	5	2	-	40
New + Review	88,366	46,387	43,241	28,472	24,138	4,091	-	234,695
Outpatients / day	21	19	26	18	16	10	-	20
10. Community Eye Clinics								
Centres	2	1	1	-	-	-	-	4
New + Review	41,624	19,031	17,548	-	-	-	-	78,203
Outpatients / day	67	61	57	-	-	-	-	63
11. City Centre								
Centres	1	-	1	-	1	-	-	3
New + Review	33,321	-	32,264	-	8,269	-	-	73,854
Outpatients / day	107	-	104	-	34	-	-	86

*BH - Base Hospitals; VC - Vision Centres

CANDIDATES TRAINED 2011-12

TOTAL CANDIDATES : 550

POSTGRADUATE COURSES

Diploma in Ophthalmology (2 years)	4
Master of Surgery in Ophthalmology (3 years)	12
Diplomate of the National Board (3 years)	13
Post DO DNB (2 years)	13

LONG TERM - OPHTHALMOLOGY FELLOWSHIP

Ant. Segment / Intraocular Lens Microsurgery (2 years)	9
Orbit & Oculoplasty (18 months)	6
Paediatric Ophthalmology & Strabismus (18 months)	9
Glaucoma (2 years)	11
Retina Vitreous (2 years)	14
Cornea (18 months)	11
Comprehensive Ophthalmology (2 years)	4

SHORT TERM - FELLOWSHIP (FOR INTERNATIONAL CANDIDATES)

Orbit and Oculoplasty (6 months)	1
----------------------------------	---

SHORT TERM - CLINICAL COURSES

ECCE - IOL Microsurgery (1 month)	20
Small Incision Cataract Surgery (1 month)	35
Phacoemulsification (1 month)	46
Diagnosis & Management of Glaucoma (1 month)	37
Lasers in Diabetic Retinopathy Management (2 months)	41
Short Term Training in Vitrectomy (Virtual) (2 weeks)	8
Management of Retinopathy of Prematurity & Paediatric Retinal Disorders (1 month)	6
Orientation to Paediatric Ocular Anaesthesia for anaesthetists (1 month)	1

SHORT TERM - PARAMEDICAL COURSES

Optical Dispensing (3 months)	7
OT Techniques (2 months)	6
Refraction Techniques (2 months)	10
Orthoptist (6 months)	3
Paediatric Nurse (3 months)	3
Paediatric Counsellors (2 months)	1
Ocularist (3 weeks)	6
Fundus Fluorescein Angiography and Ultrasonography (2 months)	5

MANAGEMENT COURSES OFFERED AT LAICO

Mgt. Priorities in Eye Care Delivery (1 week)	22
Mgt. Training for Eye Care Programme Managers (2 weeks)	52
Mgt. Training and Systems Development for Hospital Administrators / Managers (4 weeks)	17
Project Management for Eye Care (4 weeks)	6
Eyexcel – Expanding Global Eye Care Workforce through Excellence in Training (4 Days)	34
Research Methodology (5 Days)	39
Community Outreach and Social Marketing of Eye Care Services (4 weeks)	16
Instrument Maintenance- for Technicians (6 weeks)	22

Participants at the Management Training for Eye Care Programme Managers



EDUCATION AND TRAINING

In the year ending March 2012

- Forty two candidates emerged as ophthalmologists from Aravind Postgraduate Institute of Ophthalmology through the three streams of postgraduate programmes
- Two hundred and fifty nine ophthalmologists underwent fellowship programmes and short term courses in various specialities of ophthalmology.
- Eight candidates underwent fellowship in eye hospital management at LAICO
- Forty one attended various short term courses conducted for ophthalmic paramedical staff
- Two hundred and eight attended the various short term management and skills development courses offered by LAICO for staff of various hospitals from around the world

At the experiential learning part of the Training



Aravind postgraduate students in ophthalmology participating in a workshop at LAICO

Aravind's mission to provide the highest quality eye care to all people also means offering the finest training to those individuals who provide the services. Educating providers necessitates the same attention to detail and striving for excellence that has governed the delivery of eye care at Aravind since its inception.

Over a two-year period of training, a metamorphosis takes place. The intensive residential programme combines lessons in the classroom with on-the-job training and specialisation.

Senior nurses are the chief decision makers for 70 percent of all the activity that takes place in Aravind's operating rooms and patient wards.

– from 'Infinite Vision'

In-House Training

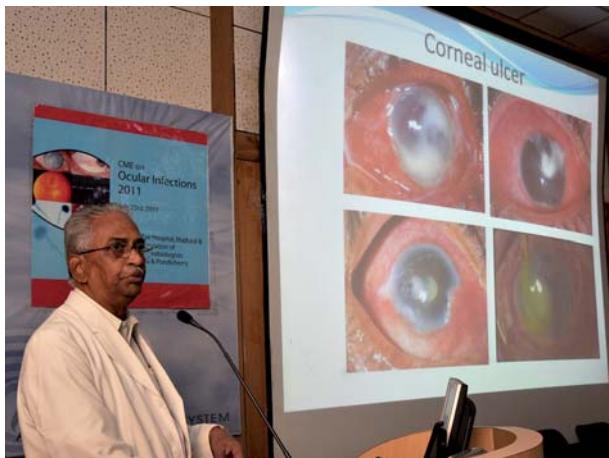
Every year Aravind Eye Hospitals take young girls, train them in-house for two years and recruit them as ophthalmic assistants, ophthalmic technicians, orthoptists, counsellors, medical record technicians, maintenance technicians, housekeeping staff and staff of opticals and laboratories. In the year ending March 2012, more than 530 girls were recruited at the different Aravind Eye Hospitals and the Dr. G. Venkataswamy Eye Research Institute.



Online Eye Care Education

AUROSIKSHA, the e-learning solution developed by LAICO, was launched globally in July 2011 and has, so far, registered 600 active users across the globe. Apart from lessons on eye care, a new subcategory called 'General Healthcare' has been created, which contains a series of lectures by prominent speakers on topics that are applicable to all fields of healthcare. A series of lectures on glaucoma has also been included recently, which was found to be of immense benefit to glaucoma fellows and trainees. Steps are underway towards migrating Aravind's MLOP training material online.

Dr. M. Srinivasan inaugurating the CME on Ocular Infections



Continuing Medical Education Programmes Organised by Aravind Eye Hospitals

CME on Ocular Infections

Aravind–Madurai, July 23

The Department of Ocular Microbiology, Aravind Medical Research Foundation conducted a one day CME under the auspices of the Tamil Nadu and Pondicherry Chapters of the Indian Association of Medical Microbiologists (IAMM). This CME had comprehensive sessions covering all areas of ocular infections and aspects of specimen handling, transportation and interpretation of culture.

Founder's Day CME on Paediatric Ophthalmology

Aravind–Madurai, October 1

As part of commemorating the birth anniversary of Dr. G. Venkataswamy, founder of Aravind Eye Care System, a continuing medical education programme on Paediatric Ophthalmology and Adult Strabismus was organised by the department at Aravind – Madurai.

Faculty and participants of the Founder's Day CME on Paediatric Ophthalmology





A practical session at 22nd PG Update in Ophthalmology

22nd PG Update in Ophthalmology

Aravind–Coimbatore, October 10 – 14

All aspects of ophthalmology, including updates in the field, were covered systematically for the participating postgraduate students from various institutions.

GLAUCONS 2011

Aravind–Coimbatore, November 20

This one-day live surgical session brought together accomplished Glaucoma specialists from all over the country. Current concepts in surgical management of Glaucoma were demonstrated to the participants.

International Symposium on Diabetic Retinopathy and Retinal Vascular Diseases

International Symposium on Diabetic Retinopathy and Retinal Vascular Diseases

Aravind– Madurai, January 7 – 8

Aravind TIFAC–CORE in Diabetic Retinopathy conducted a two-day International Symposium on Diabetic Retinopathy and Retinal Vascular Diseases. This is the fifth international symposium on Diabetic Retinopathy conducted by the centre and was attended by around 150 participants. Several exciting developments which have taken place rapidly in the management of diabetic retinopathy, especially in pharmacotherapy were discussed during the symposium.

CME for Paramedical Ophthalmic Assistants

LAICO–Madurai, January 29

A total of 99 participants attended the CME organised for Tamil Nadu paramedical ophthalmic assistants. Clinical sessions on cataract, refractive error, diabetic retinopathy, paediatric blindness, corneal disorders, low vision and contact lens were arranged as part of the CME.

A one day training programme on “Paediatric Ophthalmology” was organised for government ophthalmic assistants by the Department of Paediatric Ophthalmology and Strabismus at Aravind Eye Hospital, Coimbatore on March 11. A total of 41 ophthalmic assistants from the district primary healthcare centres in Coimbatore, Tirupur, Erode and Nilgiris participated.



Workshops and Conferences Organised by LAICO

Workshop on Eye Care Research Priorities for India

October 8 – 9

The purpose of this workshop was to develop research plans and identify priorities, with a focus on improving coverage, which will lead to improved control of avoidable visual impairment and blindness in India over the next 10 years. A total of 25 participants attended the workshop.



A group session at the Workshop on Patient Safety for Aravind Eye Hospitals

Workshop on Patient Safety for Aravind Eye Hospitals

October 21 – 22

This internal workshop for the Aravind staff oriented the participants to the concept of patient safety and the importance of continuous monitoring in order to eliminate medical errors in the hospital. A total of 110 staff from the five hospitals representing all patient care departments participated in the workshop.

PRISM 2012

March 10 – 11

Around 150 participants attended this annual national conference on healthcare management conducted by LAICO for the seventh consecutive year. It provided a forum for the hospital administrative professionals to keep themselves updated with the latest happenings in the hospital management sector.

Participants of the Workshop on Eye Care Research Priorities for India





Dr. P. Sundaresan during his visit to Dr. Markus Preising Laboratory, University of Giessen, Giessen, Germany

Dr. Rathinam at the ORBIS supported Teaching and Training Programme organised at Tilganga Hospital, Kathmandu, Nepal



Dr. Haripriya at the 24th Asia Pacific Association of Cataract and Refractive Surgeons (APACRS) conference, Seoul, Korea



Mr. R.D. Thulasiraj with the participants of Community Eye Health Workshop at Fundacion Vision, Paraguay



Dr. Mohideen Abdul Kader with Dr. Pararajasegaram at WHO Office, Geneva, Switzerland



Mr. Albert G. Mulley, Director, The Dartmouth Center for Health Care Delivery Science, with Mr. R.D. Thulasiraj and Dr. S. Aravind at the Salzburg Global Seminar, Salzburg, Austria



Dr. M. Srinivasan with Dr. Sujatha Das at LVPEI, Bhubaneswar planting a sapling on the occasion of the Prof. C. S. Bhaskaran Endowment Lecture



Dr.P. Namperumalsamy with Dr. Michael Gaynor, who did fellowship in Boston with Dr. Namperumalsamy during 1977–78 at ARVO–2011 Conference

Dr. Mohideen Abdul Kader with Dr. Tarek Shaarawy and fellows at Geneva University Hospital, Geneva, Switzerland



Aravind team at the American Academy of Ophthalmology Conference with Dr. Alvan Balent and Dr. Linda Balent



Dr. S. Aravind at the World Eye Health II Seminar, Casey Eye Institute, Portland, USA



Dr. R.D. Ravindran delivering the key note address at The King's Fund Annual Conference, London, UK



Internal Capacity Building

Apart from workshops and seminars, doctors and staff go to renowned eye care institutions worldwide to update their expertise in their respective fields. Listed below are the staff who underwent internal capacity building programmes in the last year:

RETINA AND VITREOUS SERVICE

Dr. T.P. Vignesh

NEURO OPHTHALMOLOGY SERVICE

Dr. Kiruba Evangeline Paul

Dr. S. Padmavathy



Dr. T.P. Vignesh with Dr. Hendrik Scholl at Wilmer Eye Institute, Baltimore, USA



Dr. Padmavathy and Dr. Kiruba with Dr. Prem Subramaniam at Wilmer Eye Institute, Baltimore, USA

Internal Training Programmes

The weekly Grand Rounds session held on every Thursday updates the doctors on recent developments and provides a platform to share the rare ophthalmic cases they have dealt with. Teleconferencing sessions with eminent ophthalmologists from foreign universities and hospitals are also arranged at times for sharing of knowledge.

Two research methodology workshops were conducted for the medical officers in the month of January and February. The workshops were intended to guide the participants interested in clinical research and to share the innovative approaches therein. Around fifty medical officers benefitted from these sessions.

Paper writing workshop was conducted for doctors and LAICO faculty at Aravind–Coimbatore on July 11. This workshop mainly focused on orienting the staff to national and international standards for writing articles and case reports.

Apart from the structured Instruments Maintenance courses for ophthalmologists and technicians, an exclusive course for the sales personnel of Aurolab was held in January 2012 to help them tackle problems they may come across while handling equipment.

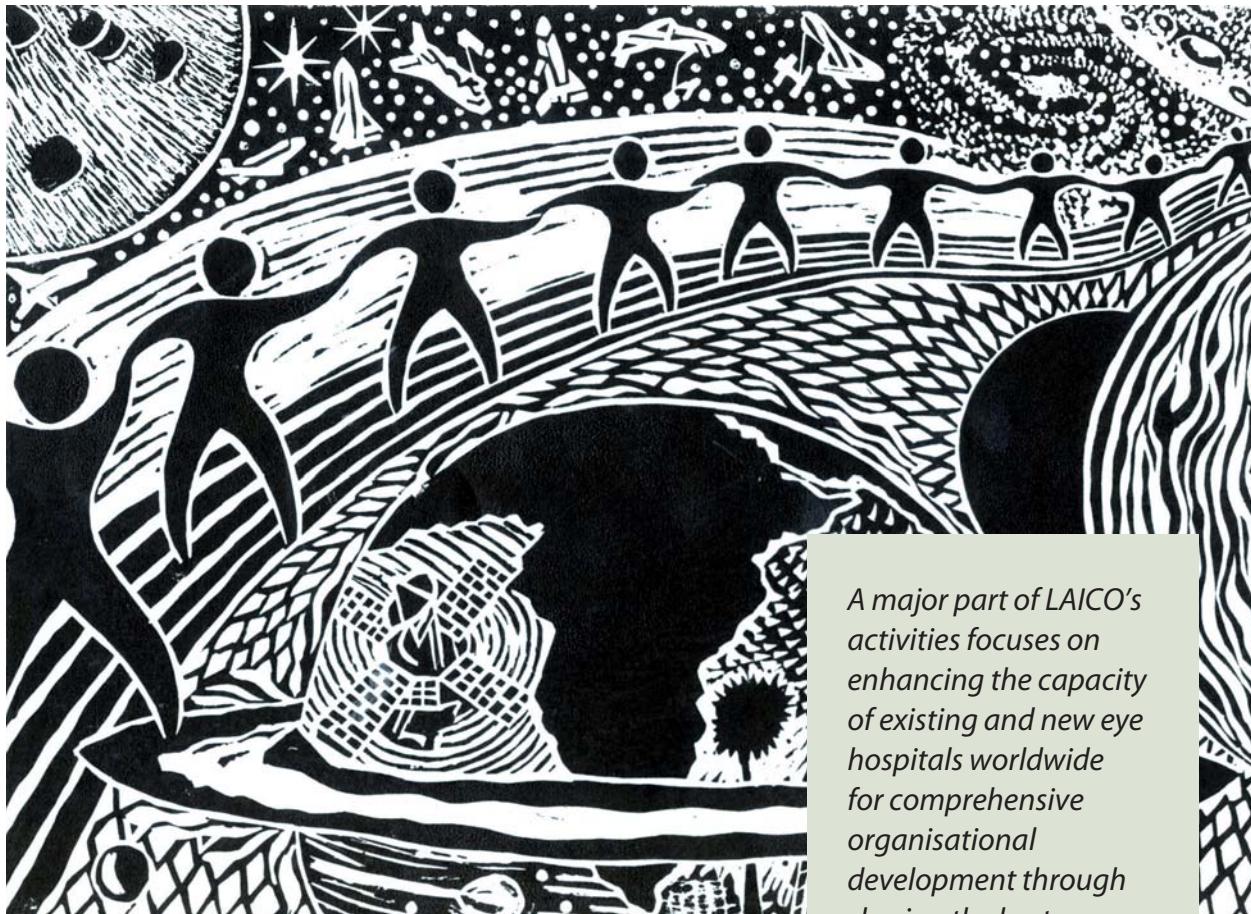
Conferences Attended

Aravind staff and doctors enjoy an esteemed status at various international and national fora owing to the large volume of patients they see and the uniqueness of the cases they handle. Several of them have been honored as guest faculty or invited speakers for different sessions, whereas a few have also been given opportunities to demonstrate live surgeries at various conferences. Aravind faculty are also invited to deliver guest lectures at various prestigious institutions on special occasions. A list of conferences that Aravind staff attended can be accessed at Aravind's website, www.aravind.org

Publications 2011-12

Aravind staff contributed more than 60 publications to various peer reviewed journals. A complete list of publications is on Aravind's website, www.aravind.org

CONSULTANCY AND CAPACITY BUILDING



*Linocut print by Richard Roode – a gift to LAICO from Dr. Timothy Visser,
Eerste River Hospital, Cape Town, South Africa*

A major part of LAICO's activities focuses on enhancing the capacity of existing and new eye hospitals worldwide for comprehensive organisational development through sharing the best practices in eye care. It works in collaboration with several international voluntary organisations.

LAICO's consulting services are now offered to 278 eye hospitals worldwide, with the addition of five more hospitals in the year ending March 2012.

Strengthening other Eye Hospitals

Two Vision Building Workshops were conducted in June and November providing training to five hospitals, which included two hospitals from Bangladesh, one from Nigeria and the rest from India.

As part of the SF 1588 – Enhancing Eye Care Services at Lions Eye Hospitals in India project specially designed Vision Building Workshops were organised for the selected hospitals that have undergone the Manpower Management Development Programme prior to 2007. Of the 73 Lions Eye Hospitals identified, 38 hospitals have undergone training at the three workshops conducted in the months of August, October and January.

Needs Assessment visits supported by Sightsavers International (SSI) and International Agency for the Prevention of Blindness (IAPB) were carried out in

nine eye hospitals in India. The LAICO team undertook follow up visits to eye hospitals in India, Bangladesh, South Africa, and Tibet.

Discussions were held with senior management team of the Catholic Eye Hospitals and Eye Foundation, Nigeria as part of the ICO and IAPB structured capacity building process.



Dr. K. Tiruvengada Krishnan at Kham Eye Centre, Dartseedo, Tibet

Participants of the SF – 1588 workshop with Lions Past International President and current LCIF Chairman Ln. Sid Scruggs III and his wife Judy Scruggs



LAICO – FHF Initiative in China

Jiangxi Province, China, August 8 – 15

The Fred Hollows Foundation – China, in association with LAICO, organised a workshop for its partner hospitals in Jiangxi Province in order to develop an eye care services business plan. As part of that, a 3 member team from Aravind made needs assessment visits to three county hospitals at Taihe, Pengze and Poyang in the second week of August. More than thirty members attended the workshop, which was scheduled for 3 days.



Mr. Franco Francis, Dr. Manoranjan Das and Mr. Suresh Kumar with part of the participants of LAICO–FHF workshop at Jiangxi Province, China

Developing Eye Care Resource Centre in Egypt

Aravind team consisting of Mr. R.D. Thulasiraj, Executive Director, LAICO; Dr. Sivakumar Chandrasekhar, Consultant, Cataract and IOL Service, Aravind – Tirunelveli and Ms. K.M. Sasipriya, Faculty, LAICO visited Al Noor Foundation, Cairo, Egypt as part of IAPB Capacity Building initiative to support Al Noor/ EICO (Egypt Institute of Community Ophthalmology) in their mentoring initiative. The team participated in a round table meeting to outline strategy and produce an action plan for EICO in Egypt and the Middle East

Region. They also visited two hospitals in Luxor Governorate in Upper Egypt to get a better understanding about the eye care delivery system and the type of hospitals EICO would be working with. The LAICO team also outlined the support LAICO would extend through IAPB Capacity Building Grant that would strengthen EICO through the mentoring process. This meeting was also attended by EICO's partners—Seva Foundation, International Eye Foundation, CBM International, Kilimanjaro Centre for Community Ophthalmology (KCCO) and Dr. Pararajasegaram and representatives from the Ministry of Health, Egypt.

Aravind team with EICO partners



Cataract Initiative in Sub-Saharan Africa

The Hilton Foundation wanted to understand the reasons for low levels of cataract surgeries in Sub-Saharan Africa and to do something proactively in that regard. Prof. Alfred Sommer at the School of Public Health, Johns Hopkins University, Baltimore, US was requested to lead this exploration, reviewing available data and experiences in order to understand the barriers and potential strategies addressing them. In this context Mr. R.D. Thulasiraj was invited to meetings in Baltimore (June 27) and Abu Dhabi (February 13), recognising the extensive work being done by LAICO in several African countries.



Mr. R.D. Thulasiraj with Dr. Leon Ellwein, Dr. G. Pokhrel and others at the Data Review and Analysis Meeting

Near Vision Impairment Follow - up Study Data Review and Analysis Meeting

Guangzhou, China, March 19 – 21

The main objective of this meeting was to develop recommendations for the screening and refractive correction of near vision impairment in low- and middle-income country settings. Principle investigators from seven study sites—Guangzhou and Beijing for China, Durban for South Africa, Los Angeles for the United States of America, Madurai for India, Kathmandu for Nepal and Dosso for Niger presented the analysis and results of the WHO supported study.

Mr. R.D. Thulasiraj with the participants of Cataract Initiative Meeting at Baltimore, USA



Regional Workshop on Prevention of Avoidable Blindness and Visual Impairment in SEAR

LAICO, September 22 – 24

The workshop was conducted with the intention of taking forward the action plans formulated by WHO for the prevention of avoidable blindness and visual impairment into an execution phase. This workshop was co-sponsored by IAPB and WHO and funded by CBM, ORBIS, Sightsavers and The Fred Hollows Foundation. Thirty four participants from South East Asia Region (SEAR) countries like Bangladesh, Bhutan, India, Indonesia, Myanmar, Nepal, Sri Lanka, Thailand and Timor Leste participated.

Diabetic Retinopathy Project Evaluation

Diabetic Retinopathy (DR) projects supported by Sightsavers International aim to improve the quality of life of DR patients and reduce the incidence of avoidable blindness due to diabetic retinopathy by establishing sustainable DR services in the project area. As part of this project, evaluation visits were carried out to four eye hospitals in India.

Onsite Training

Dr. Preethi Pradhan, Faculty – LAICO and Ms. Muthulakshmi, Nursing Supervisor, Aravind – Madurai, facilitated a workshop for the counselling staff of He Eye Hospitals, Dalian and Shenyang, and also Yunan Red Cross Eye Hospital, China from April 15 – 17. Thirty four counsellors participated in this workshop supported by ORBIS International.

Dr. Tanpreet Pal Singh, IOL Service, Aravind – Madurai, visited Sala Uno Eye Hospital, Mexico City, Mexico, to train the surgeons in SICS. Discussions revolved around standardisation of clinical and surgical protocols, quality assurance parameters, sterilisation, instrumentation, cost-effective practices and ocular anaesthesia.

Dr. Tanpreet Pal Singh with the staff of Sala Uno Eye Hospital, Mexico City, Mexico



Participants of the Regional Workshop on Prevention of Avoidable Blindness and Visual Impairment in SEAR





Mr. Poornachandran, Prof. V. Srinivasan and Mr. Gowthaman with the participants of the Instrument Maintenance Workshop at KCCO, Tanzania

Prof. V. Srinivasan, Mr. S. Poornachandran and Mr. J. Gowthaman, Instruments Maintenance Department, Aravind – Madurai were at KCCO to run an Instruments Maintenance Course sponsored by IAPB in June. Seventeen participants from eight countries such as Burkina Faso, Burundi, Kenya, Madagascar, Rwanda, Tanzania, Uganda and Zambia participated.

Projects

Eye Care for a Million Children - Lavelle Paediatric Eye Care Project

As part of the project, around 30 awareness programmes on paediatric and other eye diseases were organised. 894 preschool teachers and 1,789 school teachers were trained to identify eye problems among school students and children at Anganwadi centres. A total of 381,879 school students and 36,402 Preschool children (0 – 5 years) were screened, and spectacles were provided to 10,259 students with refractive error. The project has supported 127 paediatric cataract surgeries and 20 laser procedures for Retinopathy of Prematurity.

Diabetic Retinopathy Screening in Association with Diabetologists / Diabetes Centres

Aravind Eye Hospital, Madurai has been working with two Diabetes centres in the screening of diabetics for Retinopathy. One more Diabetes center has joined this network and the hospital has signed MoU with

Infrastructure Leasing and Financial Services Limited to collaborate with two more diabetes centres. Of the total 3,115 diabetes patients screened, 555 cases were identified with Diabetic Retinopathy.

Hobnob Project for Diabetic Retinopathy Screening

Hobnob technology for the screening of diabetes patients for retinopathy in mobile outreach camps was implemented with support from Mr. Aron B. Hall, CEO, Hobnob Inc, California, USA. Hobnob's solution provides one of the most reliable and highly available internet access solutions for remote or mobile situations. Since the Hobnob solution uses the latest wireless technologies, there are no application restrictions.

Primary Eye Care through Vision Centres

Aravind established four more vision centres with support from Aravind Eye Foundation and SEVA, Canada.

Ph.D Awarded

Ms. Preethi Pradhan was awarded a Ph.D by the Indian Institute of Technology, Chennai for her study "HR practices that influence patient satisfaction and employee satisfaction". She did her research under the guidance of Mr. R.D. Thulasiraj.

RESEARCH



Research activities at Aravind, over the years have evolved into a significant establishment contributing extensively to identifying possible causes of eye diseases and improving methods of prevention and treatment. The Aravind Medical Research Foundation has established its identity in the field of ophthalmic research with its state-of-the-art infrastructure at par with international standards. Various studies are being carried out in collaboration with prestigious international research institutes. A "Centre of Excellence on Human Mycotic Keratitis" has been established and is the first of its kind among eye research institutes in India.

Basic Research 2011-2012

Dr. G. Venkataswamy Eye Research Institute, Aravind Medical Research Foundation

The institute is now focusing on a multidisciplinary approach to understanding the disease processes of major age-related eye diseases such as Diabetic Retinopathy, Glaucoma, Age-Related Macular Degeneration and Cataract, as well as ocular infections. Such a comprehensive study at the level of genome, transcriptome and proteome is of paramount importance for improving basic knowledge and applying the research findings in clinical practice. In addition, the institute is also involved in translational research and clinical genetics for the immediate benefit of patients and their families.

Now a "Centre of Excellence on Human Mycotic Keratitis" is established with substantial funding from Department of Biotechnology, Government of India and this is the first of its kind among eye research institutes in India.

DNA sample preparation for Real Time PCR



Molecular Genetics

Currently, research on identifying genetic variations responsible for common eye diseases like Cataract, Corneal Dystrophies, Diabetic Retinopathy, Oculocutaneous Albinism, Leber's Hereditary Optic Neuropathy, Aniridia, Leber Congenital Amaurosis, etc., is underway. The department has recently initiated studies to understand the molecular mechanisms of various eye diseases at the level of gene expression and protein modifications.

The department has also identified the candidate gene for Congenital Hereditary Endothelial Dystrophy in collaboration with the Singapore Eye Research Institute and the University of Alberta. Studies are also being conducted to confirming the biotic/abiotic factors responsible for globe anomalies, such as microphthalmos and anophthalmos. Subsequent to a special glaucoma screening camp conducted for a large family in 2010, the department is currently performing genetic screening to identify the novel gene(s) causing Primary Open Angle Glaucoma in association with University of Iowa. Research on retinoblastoma currently focuses on the genetic, epidemiological and histological aspects of the disease. Mutations in the retinoblastoma (RBL) gene are being characterised.



Analysis of inflammatory cells in leptospiral uveitis patients using Flow cytometer

Immunology

The department mainly deals with the immuno-pathology of infectious eye diseases, especially Leptospiral Uveitis, which is an inflammatory response to systemic infections by *Leptospira*. Mechanism of acute development of cataract, auto-immunity (antigenic mimicry between human lens proteins and leptospiral proteins) and the host immune response in Leptospiral Uveitis patients are also being studied.

Studies on the proangiogenic cytokines and vascular growth factors in relation to the pathogenesis of Eales' Disease and Diabetic Retinopathy are also being carried out. Results of the studies conducted at the institute confirmed that DR is an inflammatory disease, and the major source for these inflammatory cytokines is Retinal Pigmented Epithelium. A recent collaborative study with Queen's University, Belfast has established the role of inflammatory cytokines in inducing proliferation of retinal capillaries. Now the study is in the realm of

Confocal analysis of immunostained corneo limbal sections to identify niche cells



proteomic analysis to understand in detail the inter-relation between different factors inducing DR and to identify predictive biomarkers in the vitreous/serum.

Stem Cell Biology

The department is involved in characterising human corneal epithelial Stem Cells (SCs), with reference to identification of specific molecular markers for stem cells. This involves confocal microscopy, expansion of SCs in different culture conditions and flow cytometry. Currently, identification of epithelial stem cell niche or microenvironment is the primary focus. Further, expansion of epithelial cells is performed in compliance with Good Manufacturing Procedure for reconstructing the corneal epithelium in limbal stem cell deficient patients.

Ocular Pharmacology

This department is involved in studying the mechanism for improving various treatment modalities, with reference to the pharmacokinetics of drugs meant for ocular use. This study helps in determining the concentration achieved at the desired site and frequency of drug intake. The department also focuses on the pathogenic mechanism of Diabetic Retinopathy to find out a strategy to inhibit the aldose reductase pathway and its role in secretion of Vascular Endothelial Growth Factor (VEGF). Another study on the mechanism of age related macular degeneration tried to understand

Packing of silica gel into glass column for the purification of A2E using column chromatography



the role of macular carotenoids in inhibiting the accumulation of A2E. Studies are underway to understand the relation between the level of Vitamin C in the plasma/aqueous, and lens cataract formation.

Proteomics

The study of proteins and their interactions, collectively called proteomics, is an emerging field in healthcare research. At Dr. G. Venkataswamy Eye Research Institute, the focus has been on the proteomics of ocular fluid from Diabetic Retinopathy, Fungal Keratitis and Primary Open Angle Glaucoma patients with the hope of identifying biomarker(s). This would help to understand the population at risk, so that effective treatment strategies can be planned in a cost-effective manner.

The tear proteins of corneal ulcer patients were examined and compared with healthy control samples to understand the pathogenesis of fungal keratitis. Studies at the institute have demonstrated that the protein profile of tears from an infected eye is significantly different from that of normal tears, thus indicating that tear samples can be used as surrogate markers. Fungal pathogens were also characterised for their virulence based on their secretome profiling as well as the virulence genes that are involved in disease progression.

Comprehensive serum proteomic analyses of diabetes and Diabetic Retinopathy patients were performed to identify biomarkers to distinguish those diabetics

who are at risk of developing retinopathy. Acute phase proteins such as haptoglobin, ceruloplasmin, hemopexin were differentially regulated in diabetes. Based on this study, the department proposed that the analysis of haptoglobin expression and other protein changes could be used as a predictive biomarker for early diagnosis and disease progression.

Microbiology

This department focuses on understanding the pathogenesis and virulence factors of micro organisms that cause ocular infections, especially Aspergillus, Fusarium Pseudomonas and Staphylococcus species. One of the major studies underway is to understand host – immune response in patients with bacterial or fungal corneal ulcers. The findings on the virulence factors of Pseudomonas are helpful for developing modalities for better treatment options. Research is underway to identify the type of Staphylococcus Aureus that causes eye infection and to develop an effective antibiotic against this.

DNA based diagnosis of Trematode Induced Uveitis confirmed the etiology of the disease, and currently the study focuses on how trematode enters the eye and also the preventive measures for the same. The use of advanced techniques, like real time PCR, helps in early diagnosis and the confirmation of etiology for ocular infections caused by bacteria, fungus and virus, thereby facilitating timely treatment.

Pre-checking the C18 column of the LC/MS/MS



DNA extraction



Ongoing Basic Research

- Molecular genetics of albinism, diabetic retinopathy, cataract, age-related macular degeneration, retinoblastoma, keratoconus, exfoliation glaucoma, leber congenital amaurosis, anophthalmia and microphthalmia, primary open angle glaucoma, aniridia, Leber's hereditary optic neuropathy, blepharophimosis, ptosis, and epicanthus inversus syndrome, retinoschisis, familial exudative vitreoretinopathy in the Indian population
- Molecular insights and mechanism of infectious uveitis like trematode induced uveitis, leptospiral uveitis
- Characterisation of the host immune response during corneal infection with pathogenic fungi and bacteria, Type 3 secretory virulence proteins of pseudomonas aeruginosa causing keratitis
- Biology of human limbal epithelial stem cells with reference to their molecular signature, niche factors and establishing xenobiotic-free culture conditions for their *ex-vivo* expansion with GMP compliance
- Proteomic profiling of serum/vitreous/aqueous humor/tear in diabetic retinopathy, biomarkers for primary open angle glaucoma, host pathogen interaction in human Aspergillus keratitis
- Understanding the pathogenesis of diabetic retinopathy and age related macular degeneration
- Ocular pharmacokinetics of drugs meant for ocular use
- Exploratory study on ascorbate (Vitamin C) and haptoglobin in cataract patients
- Human organ culture anterior segment, *ex-vivo* model for screening anti-glaucoma drugs

AMRF faculty and participants of the Workshop on Molecular Diagnostic Methods for Ocular and Systemic Pathogens



Workshops Conducted

Seminar on Proteomics – Principles, Methods and Applications

The focus was to disseminate knowledge and awareness amongst all interest groups related to proteomics in India. The seminar was jointly organised by the Aravind Medical Research Foundation and the Proteomics Society, India–Madurai in April. It was sponsored by Tamil Nadu Council for Science and Technology and MS based companies.

Workshop on Molecular Diagnostic Methods for Ocular and Systemic Pathogens

The last workshop in the October Summit series was jointly organised by Aravind Eye Care System and the Indian Association of Medical Microbiologists, Tamil Nadu and Pondicherry. The workshop answered a much felt need of microbiologists to learn and apply various molecular techniques in routine laboratory testing.

Ph.D Awarded by Madurai Kamaraj University

- Ms. P. Murugeswari – *Molecular mechanisms of diabetic retinopathy.*
- Ms. B. Hemadevi – *Genetic and functional analysis of Fuch's Endothelial Corneal Dystrophy and Congenital Hereditary Endothelial Dystrophy in Indian patients.*

Ongoing Clinical Research 2011-12

Aravind Eye Hospitals & Postgraduate Institute of Ophthalmology

Cataract

- Analysis of complication rates between phaco and MSICS at Aravind Eye Hospital
- Prospective Evaluation of Early Cataract Outcomes and Grading (PRECOG)
- Clinical evaluation of Toric intraocular lens made by Aurolab
- APEX – A prospective, multicentric, randomised controlled, study on long term outcomes of phacoemulsification with intraocular lens implantation in Pseudo Exfoliation Syndrome patients

Cornea

- Mycotic Ulcer Treatment Trial – II (MUTT)
- Sjögren's International Collaborative Clinical Alliance (SICCA)

Glaucoma

- A prospective non-randomised efficacy and safety clinical trial, 1 year study with a 1 year extension to evaluate the efficacy and safety of AADI (Aurolab Aqueous Drainage Implant) in controlling IOP in refractory glaucoma thereby preventing further damage to optic nerve and visual field loss
- A phase III, randomised, active comparator-controlled, four-week, double-masked clinical trial to compare the efficacy and safety of preservative-free MK-2452 (0.0015%) and preservative-free Timolol Maleate (0.5%) in patients with open angle glaucoma or ocular hypertension in India
- A multicentre, open-label study to evaluate the safety and efficacy of twice-daily 0.01% Bimatoprost/ 0.15% Brimonidine / 0.5% Timolol ophthalmic solution (triple combination) in patients in India, who have glaucoma or ocular hypertension with elevated IOP, and are on twice-daily 0.2% Brimonidine / 0.5% Timolol ophthalmic solution (dual combination) therapy

- Efficacy and safety of Brinzolamide 10 mg/mL/ Brimonidine 2 mg/mL eye drops, suspension compared to Brinzolamide 10 mg/mL eye drops, suspension plus Brimonidine 2 mg/mL eye drops, solution in patients with open angle glaucoma or ocular hypertension.
- A multicentre, double-masked study of the safety and efficacy of Travoprost ophthalmic solution, 0.003% compared to TRAVATAN in patients with open angle glaucoma or ocular hypertension
- A prospective, randomised study to compare the risks and benefits of combined versus cataract surgery in primary open angle glaucoma with coexistent cataract.
- Cost effectiveness analysis of anti glaucoma medications
- Genetic analysis of MFRP (Membrane Frizzled Related Protein) and evaluation of phacoemulsification with or without anterior sclerostomy in nanophthalmic eyes.
- Randomised, active comparator-controlled, three months, open label clinical trial to compare the efficacy and safety of refrigeration-free Latanoprost (0.005%) and Latanoprost (0.005%) stored at refrigeration temperature in patients with open angle glaucoma or ocular hypertension
- A prospective, randomised, controlled clinical trial comparing topical medical therapy with Selective Laser Trabeculoplasty (SLT) as initial treatment for open angle glaucoma in south Indian population
- Sparc-efficacy and safety of fixed dose combination of Latanoprost 0.005% and Timolol 0.5% ophthalmic solution
- Merck-Compare the efficacy and safety of preservative free MK -2452 (0.0015%) and preservative free Timolol Maleate (0.5%) in patients with POAG and OHT
- Research study: Genetic screening in a large family with primary open angle glaucoma

Retina

- Barriers on availing the vitreo retinal surgery by the patients as advised in the outpatient department
- Impact of diabetic retinopathy on cardiac outcome after coronary artery bypass graft surgery in Madurai
- A 12 month, phase III, randomised, double-masked, multicentre, active-controlled study to evaluate the efficacy and safety of two different dosing regimens of 0.5 mg Ranibizumab Vs. Verteporfin PDT in patients with visual impairment due to choroidal neovascularisation secondary to pathologic myopia
- A prospective study of Transpupillary Thermotherapy (TTT) for chronic Central Serous Chorioretinopathy (CSCR)
- Radial optic neurotomy for ischaemic central retinal vein occlusion: a case-control study
- Brilliant blue dye for internal limiting membrane peeling in macular surgery
- Intravitreal bevacizumab as a preoperative adjuvant for diabetic macular tractional detachments with active new vessels
- Retinochoroidal coloboma – a comparison of laser barrage photocoagulation versus natural history
- OCT analysis of subretinal fluid post scleral buckling surgery for retinal detachment
- Management of rhegmatogenous retinal detachment with macular hole
- Surgical management of optic nerve pits with macular schisis
- Use of “heavy BBG” dye for macular hole surgery
- Post-surgical epiretinal membrane: treatment and visual prognosis.
- Subretinal neovascular membrane (SRNV) after idiopathic vascular telangiectasia type 2 (IMT2).
- Treatment of optic disc coloboma with pit and schisis.
- A comparison of buckle vitrectomy Vs primary vitrectomy (retrospective study)

Uvea

- Pilot study in preparation for the Ganciclovir-intravitreous versus systemic-cytomegalovirus retinitis trial in AIDS patients (Pilot GIVCyT).
- A phase III, multinational, multicentre, randomised, double-masked, study assessing the safety and efficacy of intravitreal injections of DE-109 (three doses) for the treatment of active, non-infectious uveitis of the posterior segment of the eye.
- Etiology and immuno-pathogenesis of presumed trematode induced uveitis in south India
- First-line Antimetabolites as Steroid-sparing Treatment (FAST) uveitis pilot trial
- Epidemiology of chronic-recurrent phase Vogt-Koyanagi-Harada syndrome

Orbit, Oculoplasty and Ocular Oncology

- National retinoblastoma registry
- Translational research to generate corneal/buccal epithelial stem cells with GMP compliance for corneal surface and socket reconstruction
- Identification of mitochondrial biomarkers in retinoblastoma
- Clinical evaluation of silicone implant for primary or secondary volume rehabilitation of anophthalmic sockets
- An open label, prospective clinical evaluation of safety and efficacy study of Aurostent (Silicone mono canalicular lacrimal stent manufactured by Aurolab) in the treatment of canalicular injuries and anomalies

Paediatric Ophthalmology

- Lavelle paediatric project: Eye care for million children
- Study on squint surgery barriers
- Effectiveness of sibling screening in children with ocular pathology

Clinical Trials 2011-12

Aurolab

- Clinical evaluation of Toric intraocular lens made by Aurolab
- Clinical assessment of AuroKpro
- Randomised, active comparator-controlled, three months, open label clinical trial to compare the efficacy and safety of refrigeration-free Latanoprost (0.005%) and Latanoprost (0.005%) stored at refrigeration temperature in patients with open angle glaucoma or ocular hypertension
- A prospective non-randomised efficacy and safety clinical trial, 1 year study with a 1 year extension to evaluate the efficacy and safety of AADI in controlling IOP in refractory glaucoma thereby preventing further damage to optic nerve and visual field loss
- Clinical evaluation of silicone implant for primary or secondary volume rehabilitation of anophthalmic sockets
- An open label, prospective clinical evaluation of safety and efficacy study of Aurostent (Silicone mono canalicular lacrimal stent manufactured by Aurolab) in the treatment of canalicular injuries and anomalies
- Clinical evaluation of a new cartridge for the implantation of foldable intraocular lenses
- A prospective, non-randomised, single arm, open label study to evaluate the safety and efficacy of Polymethyl Methacrylate intraocular lens for treating the patients having cataract.

Operations Research 2011-12

Lions Aravind Institute of Community Ophthalmology

- Assessment of the prevalence and socioeconomic burden of near vision impairment caused by uncorrected Presbyopia (follow-up study)
- A cluster randomised trial of spectacle uptake for Refractive Errors across multiple delivery system in south India (funded by Champalimaud research grant).

MANUFACTURING OPHTHALMIC SUPPLIES

By the dawn of 2012, completing twenty years of service, over ten million around the world have regained or improved vision through Aurolab ophthalmic supplies.

Manufactured in compliance with strict quality assurance measures, over the years Aurolab's innovative products, have revolutionised the way eye care is being delivered across the world. Deliberate efforts towards serving societal needs by making the products affordable and accessible have brought a noble identity to Aurolab in the market.



1992-2012



Aurolab completed two decades of service towards the elimination of needless blindness in January 2012.

To mark this occasion, elaborate annual day celebrations were held on January 21. The senior leadership team and other key stake holders from Aravind Eye Care System were invited for the event. Dr. P. Balakrishnan, Managing Director shared the major activities of the year and Mr. R.D. Sriram, Director—Operations, outlined the growth of the organisation over the years and detailed its future plans. This was followed by cultural events and a sumptuous dinner for all the guests and employees.



Celebrations to mark the completion of twenty years in service for elimination of needless blindness

With a fully established silicone lab in place, Aurolab is now poised to produce various silicone implants and other related products for the medical field.

Right from Aurolab's inception, dealers have played a pivotal role in extending the reach of its products thereby widening the scope of the organisation. For the very first time, the organisation organised an International Dealers Meet which was attended by participants from Latin America, Africa and South East Asia.



International Dealers interacting with the Aravind senior leadership team





New Products

Pegasus: High End Phacoemulsification and Vitrectomy System

Aurolab launched its high end phacoemulsification and vitrectomy system at the Intraocular Implant and Refractive Society (IIRSI) conference held in Chennai. Branded as PEGASUS, it is robust, swift and safe to use. Its modular design system allows the customers to upgrade the machine as per the growing needs of the surgeon. Built on established technology knowhow from European markets, the machine offers quality and reliability at par with the best in the market.

Aurosporin

To address corneal graft rejection after transplantation, Aurolab introduced an immunosuppressant drug, AUROSPORIN (Cyclosporine 2% eye drop), that helps in acceptance of the transplanted cornea. Reduction in the rejection of corneal grafts can increase the effective use of donated corneas.

MFlox

Aurolab has come up with a higher end antibiotic drug—Moxifloxacin eye drops. It is a 4th generation antibiotic that has a broad spectrum of anti-bacterial activity. It is a preservative-free drug with superior corneal penetration in comparison with other fluoroquinolones.

Aurosphere and Aurostent

Aurolab introduced two products which can be of immense use in orbit and oculoplastic surgeries. Aurostent is an import substitute for the canicular stents used in canicular laceration surgeries.

Aurosphere, used in enucleation and evisceration procedures, was launched to fill a gap in the market place as there were no medical grade silicone spheres available for this permanent implantable product.



E- Kit

Endophthalmitis is the clinical term used to describe the inflammatory response of the eye to ocular infection (mainly postoperative infection). Though a rare phenomenon, it is potentially the most devastating complication of intraocular procedures and can lead to a permanent, complete loss of vision.

Aurolab launched E-Kit to provide essential first-intervention material for treatment of both bacterial and fungal endophthalmitis in a ready to use kit. This product was developed with support from Dr. T.P. Das, Director, LV Prasad Eye Institute, Bhubaneswar. The benefits of E-Kit include accurate and easy preparation of antibiotics, safe vitreous sampling, reduced ordering time and inventory cost and timely treatment. Launched during the Vitreo Retinal Society of India conference in December 2011, this product has been welcomed widely by the ophthalmologists in India and abroad.

Vozole PF

Encouraged by the success of Vozole (Voriconazole eye drops), Aurolab introduced Vozole PF in a ready to use intravitreal injection form to treat advanced fungal infections. This move has been well appreciated by the vitreoretinal surgeons.

Auroflex Toric

Aurolab again developed complex optics (after aspheric optics) by launching a technologically advanced TORIC IOL. It is used in cataract patients with astigmatism (almost 40% of population). By pricing this product at 50% less than the prevailing market price, Aurolab has made the TORIC IOL affordable and hence superior vision accessible to a much wider section of society. This product launched at the All India Ophthalmological Society conference 2012 in Cochin has generated good interest in the ophthalmic market. The postoperative outcomes are satisfactory to the surgeons as well as the patients. This marks the entry of Aurolab in manufacturing IOLs for refractive surgeries.

Inauguration of Silicone Lab

The silicone lab was inaugurated in the Aurolab facility by Dr. Usha Kim on August 15. This lab was set up to produce various silicone implants and other related products for the medical field. Recently launched Aurosphere and Aurostent are from this lab. It also makes allied components such as sleeves for the disposable injectors used during lens implantation, button arrays, mode buttons, spacers for the green laser photocoagulator, endoprobe covers, etc. Products such as the AADI-Glaucoma shunt, punctal plugs and other silicone ocular implants are in the pipeline.



At the inauguration of the silicone lab

Marketing Activities

Sales force automation is now being implemented with the help of the mobile phone software, STAR App. It enables the team at the headquarters to guide the field staff in their business activities and increases efficiency in reporting and data analysis.

Automation software is being deployed at dealer locations in India which will enhance smooth transactions with the dealers. It provides better visibility of stock movements and important sales data for varied analysis. This is expected to help in better production planning, thereby reducing inventory costs.

The Aurolab website was completely redesigned with many added features and the same was launched in June.

Reach in the International Market

Aurolab has widened its international market by appointing authorised distributors in Mexico, Uganda, Nigeria and Turkey.

Aurolab has successfully completed registration of some of its products such as Aurovisc, Euroblue, Auroflex and so on in developing regions South East Asia, Europe and Latin America and Africa. This will result in expanding the scope and volume of international supplies from Aurolab. This will also minimise the challenges that have been faced in the past when sending products to the registered regions.

International Dealers Meet

For the first time, Aurolab conducted an International Dealers Meet named "Karuna 2012"- during the first week of February. The meeting which was attended by participants from Latin America, Africa and South East Asia focused on the need for developing good rapport with the dealers. This meet was also used to train and update the dealers on all the products of Aurolab.

Regulatory Activities

Nanocut blades, Aurogel, Ribocross are now CE certified. The annual ISO and CE certification audits were carried out successfully.

Aurolab is now poised to register its products in Uganda with the successful GMP audit conducted by the National Drug Authority, Uganda.

Total Quality Management Initiatives

The regulatory department monitored the 5S measures carried out as part of total quality management initiatives and awarded a cash prize for the best performed team.

International Dealers Meet



Human Resource Activities

Elaborate programmes were arranged focusing on the overall development of the employees and also to cultivate a spirit of teamwork and harmony among one another. To break the monotonous work schedule, different festivals were observed with celebrations unique to each of them. Bhajans were organised frequently and on various occasions eminent resource persons were invited to deliver inspirational lectures to the staff.

The major programmes of the Human Resources Department during 2011–2012 can be grouped under the following heads.

Technical Education Sessions

At the Continuous Technical Education (CTE) organised for the production staff, the participants were briefed on the new products of each division and on different procedures in microbiology and sterilisation. Basic information on validation, calibration, laser and phaco was also provided.

A special training session on seven Quality Control (QC) tools was arranged for the production staff, Quality Assurance managers and chemists. The session was handled by Mr. Parameshwaran from ZTQM Institute, Bangalore. He also facilitated a training session on developing soft skills.

Healthcare Initiatives

To orient the employees towards a healthy lifestyle, an annual health checkup programme named Aurowel was conducted for all the staff and employees. Lectures on healthcare topics by eminent doctors were also arranged as part of this.

Special Yoga sessions were arranged facilitated by Ms. Susy Stewart, a long term friend of Aravind.

Awareness Seminars

An awareness programme on basic fire safety measures was arranged for the entire staff. Mr. Arulprakasam from Usha Fire Safety Equipment Pvt. Ltd., delivered an informative lecture on the immediate steps to be taken in the case of a fire accident. He also demonstrated the procedures to handle fire extinguisher and fire hydrant system safely.

Recreational Events

The weeklong Auroutsav competitions held in September provided an opportunity for the staff to get to know each other and to showcase their literary and artistic talents. Excursions arranged for the staff provided the much-needed respite from the tedious work schedule.

Graduation Day Celebrations

Graduation day for trainees who successfully completed their training was held on June 24 which was marked by the presence of a huge audience. A total of 54 trainees were graduated. At another Graduation Day Ceremony organised for the tiny tots of Janakiamma Child Care Centre, kids were awarded “Ready to School” certificates.

Prominent Trade Shows Attended

Dr. P. Balakrishnan, Mr. Venkatesa Kannan and Mr. Pradeep Stanley represented Aurolab at the 29th European Society of Cataract and Refractive Surgeons conference held at Vienna, Austria in September.

Mr. R.D. Sriram, Mr. Sivanand and Mr. Sivakumar represented Aurolab at the 115th American Academy of Ophthalmology Conference held at Orlando, USA in October.

Aurolab promoted its products at the 70th All India Ophthalmic Conference held at Cochin in February.

Mr. Vishnu Prasad, Mr. Sathya Moorthy and Mr. Antony Renny participated in the 33rd World Ophthalmology Congress held at Abu Dhabi, UAE in February.



Mr. Vishnu Prasad, Ms. Suzanne Gilbert, Dr. P. Namperumalsamy, Mr. Sathya Moorthy and Mr. Antony Renny at the 33rd World Ophthalmology Congress, Abu Dhabi, UAE

CENTRAL FUNCTIONS

Human Resources

The Human Resources Department activities in the year 2011–2012 focused on empowering the employees thereby acknowledging their service as integral to the growth of the organisation. Standardisation of procedures across the centres ensured better streamlining and coordination of different programmes organised by the department. Manpower planning being the major responsibility of the department, a workshop was held towards this end, bringing together the HR personnel and senior teams from all the centres. Parameter external audits conducted across the Aravind Hospitals helped in regular monitoring and performance evaluation of the different clinical and non-clinical departments.

The HR retreat facilitated by Ms. Cindy Harrison, Vice President, Chelsea Community Hospital, USA, brought together the HR teams from all the Aravind centres on a common platform. Deliberations revolved around the development activities to be carried out in the year ahead, future HR challenges and the measures to address the same.

Building Team Spirit and Developing Personality

The fifth season of Auroutsav, the weeklong series of cultural and sports competitions conducted biennially across the centres of Aravind, brought out the camaraderie and innate talents of the staff. A cultural evening was arranged at Aravind–Madurai and Coimbatore monthly which provided a platform for the staff to show off their latent talents. Staff across the centres and belonging to different cadres were taken on trips to various places to provide them a refreshing experience from the mundane work schedule.

Several workshops were conducted with the aim of nurturing soft skills and developing positive attitude among the employees.

A spiritual discourse on Ramayana at Aravind–Madurai





Newly promoted Supervisors and Tutors at the orientation programme

Towards Promoting Professional Competency

Training programmes and special CMEs were arranged for the Mid-Level Ophthalmic Personnel on general aspects of nursing profession and also to orient them into the clinical and non-clinical aspects of eye care. Special orientation programmes were also held for those who were promoted as supervisors, tutors and technicians.

At the workshops held at LAICO in April and Aravind-Pondicherry in December for the staff of audio visual departments across the Aravind centres, a total of 15 participated. Organised by Mike Myers, this brought in a remarkable improvement in the quality of photographs and videos taken across all hospitals.

Dr. Venkatesh, Mr. Mike Myers and Mr. Dhanapal with Aravind audiovisual team at Aravind-Pondicherry





Dr. Krishnadas, Director, HR presenting a memento to Ms. Monica, 10th standard student and daughter of Ms. Rama Devi, senior accountant at Aravind-Madurai

Continuous technical education programmes arranged for drivers of Aravind Eye Hospital, Coimbatore and Madurai oriented the audience on basic traffic rules and road safety measures.

Special training sessions handled by eminent faculty were arranged for the housekeeping staff of Aravind-Coimbatore. An observational visit was organised to Jenny club on August 30 to understand the importance of housekeeping and the various methods involved therein.

A team of 17 people including doctors, managers, and senior nursing staff went on an observational tour to Sri Sadguru Nethra Chikitsalaya, Chitrakoot, Rajendra Prasad Eye Centre at All India Institute of Medical Sciences (AIIMS) and Venu Eye Hospital and Research Institute, New Delhi. The team had an opportunity to study and compare systems and procedures in three different settings—that of a charity hospital, a government one and a corporate set up.

Unique Initiatives for Staff Children

Janakiamma Child Care Centre at Aravind Hospitals provides a safe and clean environment for the children of working mothers at Aravind. The centre organised summer camps for children which focused on nurturing their latent potentials through a variety of entertainment activities. Graduation day was arranged for the kids who would be joining school the ensuing academic year.

Workshops and camps were arranged for the children to help them face public examinations with confidence. Financial assistance in the form of educational funds were distributed to the children of sanitary staff. To congratulate the children who passed the 10th and 12th standards, a special function was organised at Aravind-Madurai.

Aravind team at Chitrakoot



Healthcare Awareness Programmes

To promote best practices in following a healthy lifestyle, Aurowel—annual health check up programme for all the employees was held across the Aravind centres and Aurolab. Several seminars on health-related topics and talks by eminent doctors were arranged as part of Aurowel.

To familiarise the staff on basic fire safety measures and use of fire extinguisher, exclusive sessions with demonstrations were held at Aravind—Tirunelveli, Pondicherry and Madurai.

Because October is the month of festivals and there are often accidents due to improper handling of fireworks, a special awareness exhibition was arranged on the topic at Aravind—Pondicherry.

At the seminar on health insurance held at Aravind—Pondicherry, around 20 participants, including doctors, finance managers, administrators and insurance coordinators from various hospitals in Pondicherry, Villupuram and Cuddalore participated. Various issues related to health insurance and claims management were discussed.

Yoga sessions by Ms. Susy Stewart, a long term friend of Aravind reinforced the importance of yoga for mental relaxation and physical fitness.



Demonstration of basic fire safety measures at Aravind—Pondicherry

Observing Festivals and Special Days

Lately, the HR department has initiated celebrating festivals mainly to build rapport among the staff and also to provide rejuvenating experience in the midst of a hectic work schedule. Sharing the happiness and joy of the season, Aravind Hospitals observed major religious and national festivals, and important days with a variety of celebrations unique to the occasion. Retention awards and service awards to the staff who completed 5, 10, 15, 20, 25 and 30 years of service at Aravind were distributed during the annual day celebration of all the hospitals. Motivational lectures and bhajans were also arranged as part of observing these important days.

Christmas celebrations at Aravind—Madurai by staff and children from the creche



Information Technology and Systems

The potential of information technology and systems in improving the quality, safety, and efficiency of healthcare delivery has been well acknowledged and utilised by Aravind in many of its core activities. Various systems in place have been continuously reviewed and upgraded for better utilisation and many new IT solutions were created to meet the growing demands.

The most significant accomplishment has been the addition of a Counselling Module that allows counsellors to monitor the acceptance rate for different categories of patients while keeping track of all the patients advised for surgery.

Monitors have been placed in most of the doctors' cubicles to provide in-depth information on the number of patients waiting to be seen and on the waiting time.

The Auronutrisoft software developed for INDEYE study was further enhanced to facilitate its wider use. The potential users of the enhanced software are partners in the SANCD network, as well as the wider nutrition and research community who are undertaking population-based studies in nutrition. The software has been installed at PSG College of Arts and Science, Coimbatore for field testing.

Another major success for the IT department has been the move to an online indenting system for ordering and tracking inventory. While previously the different clinics were required to hand in paper order forms for their weekly requirements, now they can log on to the Materials Management site, and order their requirements online.

Mr. John Van Sickle with the staff during the development of online indenting system



Mr. Ganesh Babu and Mr. Praveen Kumar during MIS implementation at Fundacion Vision, Paraguay

Support to Other Eye Hospitals

The IT team visited four eye hospitals in Nigeria, one in Paraguay and two hospitals in India to understand their systems, assess their requirements, and provide training in the use of new software. The department installed the Integrated Hospital Management System in eight hospitals and the Opticals Management System Software in one hospital.

Aravind Tele-ophthalmology Network

Aravind has been networking with various diabetes care centres to screen diabetic retinopathy cases through tele-consultation with the help of Aravind Diabetic Retinopathy Evaluation Software (ADRES). Three more centres were newly included in this network during the last year and 1,214 DR cases were evaluated.

The telemedicine link established between all the satellite hospitals of Aravind enabled better communication and meaningful exchange of ideas during CME programmes, journal club presentations, grand rounds, research, clinical and management meetings. Around 480 videoconferencing sessions consisting of a total of 690 hours were conducted during the last year. The average time taken per session was around 1 hour 30 minutes.

Aravind Communications

Consisting of desktop publishing and audiovisual units, this department takes care of the design and publication needs of the Aravind Eye Care System. The department maintains the website and constantly updates the intranet of the organisation which acts as a platform for sharing information between its satellite hospitals. Intranet web pages were created for the newly built Dr. G. Venkataswamy Retreat Centre, Aravind Library and Information Centre, Auroutsav and accommodation facilities at Aravind. Thingal Udhayam, the weekly intranet e-magazine was completely revamped with a content management system to facilitate column-wise entry and easy dissemination of the magazine. The department prepares posters for Aravind faculty attending various national and international conferences. As many as thirty posters were designed by the department staff for the annual Research Advisory Committee meeting held at Dr. G. Venkataswamy Eye Research Institute. As part of the NABH accreditation process, the department took initiatives in standardising clinical forms across the hospitals.

The audio visual department develops instructional videos and one of these has been selected as the Best Video at the annual TNOA Conference.

A retina image portal was developed for archiving retinal images and publications. A new platform named Auronewz was created for archiving all the news and events at AFCS. For the major workshops and conferences conducted at Aravind, internet web pages were created to facilitate online registration and sharing information. The newsletter of Aravind Eye Foundation was completely redesigned. A program was developed

for Aravind Library to compile the resources onto CDs for specific courses. A common platform for sharing various resources of an eye hospital was also created. A program “Image Marker” was developed to mark the proteins in a gel picture of the tear sample. The online print order form developed helped to better streamline of the printing details.

Biostatistics

The department supports various clinical and non-clinical research projects at Aravind by their active involvement in study design, data entry, data management, statistical analysis and report writing. The biostatisticians handled the sessions on Statistics for the students of Diploma in Medical Record Science. Sessions related to data management and entry were arranged for the medical officers. The department also involved in statistical consultation for post graduates, fellows and research scholars.

Aravind Library and Information Centre

To update the library staff on the latest trends in the field of library and information science, a seminar was conducted at LAICO in December 2011. Librarians from Aravind Eye Hospitals-Madurai, Theni, Tirunelveli, Coimbatore and Pondicherry participated in the discussions. Challenges in the field and how to ensure maximum utilisation of available resources were detailed at length. Current resources and services in all the Aravind libraries were reviewed and recommendations were made to improve the same.

AWARDS AND ACCOLADES

While Aravind has never sought public recognition, it deeply values the various awards it has received because they represent the trust and goodwill of the community. These awards also inspire the organisation and its staff to continue their pursuit of perfection in serving society.



Vision Award 2011

Berlin, Germany, April 8

Aravind Eye Care System was conferred the Vision Award 2011 by the Genesis Institute for Social Business and Impact Strategies, Berlin at the Vision Summit 2011 held on April 8. The award was given in recognition of the social impact that the business of the Aravind Eye Care System is running under his guidance.

Honoured at IOB Platinum Jubilee Celebrations

Mr. G. Srinivasan was felicitated and honoured by the Indian Overseas Bank on the occasion of the Platinum Jubilee celebrations of the bank held at Chennai on January 6. The award was presented by Sri Pranab Mukherjee, Hon'ble Minister of Finance, Government of India.



Visveswaraya Eminent Engineer Award

Mr. G. Srinivasan was conferred the Visveswaraya Eminent Engineer Award in recognition of his dedicated leadership and services to civil engineering and society by the Association of Consulting Civil Engineers (India), Madurai centre on February 8.

Aravanar Achievement Award

Dr. G. Natchiar received the Aravanar Achievement Award on August 6 in recognition of her eye care services to society and the active role she played in evolving the Aravind model. The award was instituted by Aravanar Research Trust, Chennai.

APAO Distinguished Service Award

Dr. M. Srinivasan has been selected for the Distinguished Service Award by the Asia Pacific Academy of Ophthalmology. The award will be presented at the APAO Congress to be held in Busan, South Korea, on April 13th–16th, 2012.

Dr. M. Srinivasan with the APAO Distinguished Service Award



Dr. A.P.J. Abdul Kalam

Dr. G. Venkataswamy Award - TNOA

Dr. R.D. Ravindran received the Dr. G. Venkataswamy Award for outstanding contribution to the field of community ophthalmology from Dr. APJ Abdul Kalam at the Annual TNOA Conference held at Tirunelveli from August 5–7.

Dr. K. S. Sanjivi Award

The Dr. K. S. Sanjivi award was conferred on Dr. R. Ramakrishnan by Udhavum Ullangal and Ekam Foundation at Chennai in recognition of his untiring efforts in serving the underprivileged.





India's Most Innovative Hospital Award

Aravind Eye Hospital, Madurai won India Healthcare Awards 2011 in the category of "Most Innovative Hospital" instituted by ICICI Lombard Health Insurance and CNBC-TV 18 at a spectacular function held at the Taj Palace, New Delhi on December 22.

Dr. Om Prakash Gold Medal

Dr. Haripriya Aravind received the Dr. Om Prakash Gold Medal for Excellence from Ms. Sheila Dixit, the Chief Minister of the Government of NCT of Delhi, at the IIRSI Conference held at New Delhi on August 13.



Dr. Kali Das Bhattacharya Memorial Award

Dr. P. Vijayalakshmi was awarded the Dr. Kali Das Bhattacharya Memorial Award 2010 at the joint International Assembly of Community Ophthalmologists and Second Annual Conference of the Association of Community Ophthalmologists of India held at Guwahati on October 28–30.

Rustom Ranji Oration Award

Nellore, September 23

Dr. R. Kim was awarded the Rustom Ranji Oration Award at the annual meeting of the Andhra Pradesh Ophthalmic Association held at Nellore.

FICCI Healthcare Award

New Delhi, September 8

The FICCI Healthcare Award 2011 presented to LAICO acknowledged the organisation's studious efforts in the development of various eye care management programmes.



Natarajamanickam Oration Award

Chennai, December 18

Dr. P. Namperumalsamy was awarded the inaugural Natarajamanickam Oration Award instituted by M.N. Eye Hospital Pvt, Ltd. at Margazhi Ophtha Fest 2011.

NASSCOM Healthcare Award

Hyderabad, April 22

Aravind received the NASSCOM Healthcare Award 2011 for the Best IT solution for Healthcare Inclusion for its Diabetic Retinopathy Evaluation Software at a function held in Hyderabad. The award was instituted by the National Association of Software and Services Companies (NASSCOM) in collaboration with KPMG, one of the leading providers of risk, financial and business advisory, internal audit, corporate governance, and tax and regulatory services.

Mr. Vijayakumar receiving the NASSCOM Healthcare Award from Mr. Kiran Reddy, Chief Minister of Andhra Pradesh



Meritorious Doctor Award

The Indian Medical Association, Tamil Nadu Government Doctors Association and Meenakshi Mission Hospital and Research Centre, Madurai acknowledged the services of Dr. Ramakrishnan by presenting him with the “Meritorious Doctor Award” on July 17.

IIRSI Gold Medal

The Intraocular Implant and Refractive Society, India (IIRSI) honoured Dr. R.D. Ravindran with a gold medal for his contributions to ophthalmology at the annual convention held in Chennai on July 9.

Recognition by Kalavardhini Trust

Dr. Aravind Srinivasan was recognised as an Inspiring Role Model by Kalavardhini, a trust primarily set up to support and propagate performing and allied arts. He was felicitated at a special dance-evening, named Pancha Maha Yajna, organised by the Kalavardhini group on January 12.

IMA Award

Dr. S.R. Krishnadas was conferred with the 23rd Dr. Sundareswaran Endowment Oration Award by the Indian Medical Association, Coimbatore on August 28.

CREST Award

Dr. P. Sundaresan received the CREST (Cutting Edge Research Enhancement and Scientific Training) Award instituted by the Department of Biotechnology, Government of India. The award aims to promote capacity building in cutting edge areas of biotechnology and life sciences.

TNOA Awards

Dr. N. Venkatesh Prajna received the Captain Subramaniam Award for the video “The Capture of the Intraocular Disco Dancer”.

Aravind's cornea team consisting of Dr. M. Soundaram, Dr. Sean Socrates and videographer Mr. Muneeswaran have been selected for the same award for the year 2011 for their video presentation “Post traumatic intra lenticular foreign body-The back door entry”.

Dr. Sandra C Ganesh won best paper award and Dr. Vidya and Dr. Saurin became runners up in the E.T.Selvam quiz held as part of the conference.

Best Poster Award

Ms. M. Valarnila from Aravind Medical Research Foundation won the best poster award at the Indian Proteomics Conference organised by The Proteomics Society of India in collaboration with Advanced Instrumentation Research Facility, Jawaharlal Nehru University, New Delhi on April 3.



Most Affordable Healthcare Provider Award

Aravind Eye Care System won Best Public Choice Award under the category “Most Affordable Healthcare Provider” as part of the e-health World Awards instituted by e-health magazine.



Recognitions

Dr. S.R. Rathinam has been recognised as Ph.D guide in Biomedical Sciences by Madurai Kamaraj University. She has also been elected as Fellow of the National Academy of Medical Sciences, India.

Dr. Lalitha Prajna and Dr. M. Jayahar Bharati were elected as secretary and treasurer of Indian Association of Medical Microbiologists-Tamil Nadu and Pondicherry Chapter respectively for a period of three years at the general body meeting held at LAICO on July 23.

PARTNERS IN SERVICE

Aravind Eye Care System is indeed fortunate to have a wide network of partner organisations, well-wishers and friends as its continuous growth would not have been possible without their generous support and inspiration. Aravind gratefully acknowledges the extraordinary commitment of its well-wishers who deeply share and contribute to its mission of eliminating needless blindness.

For Service Delivery, Training and More

- Acumen Fund, USA
- Alcon Laboratories Inc, USA
- Artemisia International–Social–Business Ventures, Brazil
- Canadian International Development Agency, Canada
- Carl Zeiss Meditec, Germany
- CBM International, Germany
- Combat Blindness Foundation, USA
- Essilor, India
- Fred Hollows Foundation, Australia
- Indian Institute of Management, Bangalore, India
- Indian Space Research Organisation, India
- International Federation of Eye Banks, USA
- Indian Overseas Bank, Chennai, Madurai
- International Agency for Prevention of Blindness
- International Eye Foundation, USA
- International Council for Ophthalmology (ICO), London
- Lavelle Fund for the Blind, USA
- Lions Clubs International Foundation, USA
- Narotam Sekhsaria Foundation, Mumbai
- ORBIS International, USA
- Rotary International, USA
- Right to Sight, Ireland
- Schwab Foundation and Social Entrepreneurship, Switzerland
- Seva Foundation, USA
- Seva Service Society, Canada
- Sightsavers International, UK
- State Bank of India, Madurai
- Stanford University, Center for Global Business and the Economy
- Standard Chartered Bank, UK

- TIFAC–CORE, Department of Science and Technology, Government of India
- Topcon, Japan
- University of Michigan, USA
- University of California, Berkeley
- VISION 2020–The Right to Sight, India
- Wescott Williams Ltd., UK
- World Diabetes Foundation, Denmark
- World Health Organization (WHO), Geneva, Switzerland

For Research

- Alagappa University, Karaikudi
- Allergan Pharmaceuticals, USA
- All India Institute of Medical Sciences, New Delhi, India
- Case Western Reserve University, Cleveland, USA,
- Centre for Vision and Vascular Sciences, Queen's University, Belfast, UK
- Defence Research and Development Organisation, Government of India
- Department of Biotechnology, Government of India
- Department of Science & Technology, Government of India
- Francis I. Proctor Foundation for Research in Ophthalmology, UCSF, USA
- Indian Council of Medical Research, India
- Indian Institute of Technology, Chennai
- International Centre of Eye Health, UK
- London School of Hygiene and Tropical Medicine, UK
- Madurai Kamaraj University, India
- National Eye Institute, USA
- National Institute of Nutrition, Hyderabad
- North Eastern Hill University, Shillong, India
- Royal Tropical Institute, Netherlands
- Singapore National Eye Centre, Singapore
- Tamil Nadu Dr. M.G.R. Medical University, Chennai, India
- University of Giessen, Germany
- University of Wisconsin, Madison, USA
- University of Iowa, USA
- Vivekananda Mission Ashram, West Bengal, India
- Wellcome Trust, UK
- World Health Organization, Switzerland

The Aravind Eye Foundation

The Aravind Eye Foundation was established to help the Aravind Eye Care System spread its sustainable model of highly efficient and effective eye care to India's rural populations and to other developing countries. It does so by facilitating knowledge sharing and partnerships with higher education, social enterprise, healthcare, government, and other non-profits.

This year, Aravind Eye Foundation provided funding for construction of a vision centre in Kadayanallur, in the Tirunelveli District of Tamil Nadu. To help hospitals in other developing countries increase their efficiency, quality, and output, the Aravind Eye Foundation received a major grant from the So-hum Foundation. Through the Ring of Hope Fund, a total of 77 new patients with eye cancer have received treatment at Aravind completely free of cost. More than 45,000 children from forty-four schools were screened for vision problems through the Youth Vision Project, and 2000 received free spectacles. In the area of research, four fellows, who are researching infections and genetic diseases of the eye prevalent in India, received grants to support their work. In addition, Aravind Eye Foundation is sponsoring a Retina fellow from Kandhar, Afghanistan, who will return to his home country to set up advanced speciality eye care clinics.

Ms. Pavithra Mehta and Ms. Suchithra Shenoy with Ms. Jacqueline Novogratz at the Infinite Vision book launch at the Rockefeller Foundation



Dr. Christine Melton, President of the Board, and Ms. Donna Campbell, Executive Director of the Aravind Eye Foundation visit a rural vision centre in Srivilliputtur, Tamil Nadu, with Mohammed Gowth, Assistant Manager of Community Outreach. The centre was funded with a grant from The Liane Ginsberg Charitable Trust

In New York, the Aravind Eye Foundation co-sponsored a travel fellowship and exhibition with the School of the International Centre of Photography. "A Day in the Life of Aravind", by photojournalist Willie Davis, who documented the life-changing work of the Aravind Eye Care System. The Foundation also organised the New York book launch of *Infinite Vision: How Aravind Became the World's Best Business Case for Compassion*, with events at the Rockefeller Foundation, Columbia University and New York University. As part of an ongoing relationship with the Stern School of Business Consulting Corps, New York University, the Foundation completed its second consulting project.

The Foundation's work would not be possible without the generous contributions of our donors and the many volunteers, in the US and from around the world, who share Aravind's mission of eliminating needless blindness.

ARAVIND EYE CARE SYSTEM

Aravind Eye Hospitals & Postgraduate Institute of Ophthalmology

Lions Aravind Institute of Community Ophthalmology

Aravind Eye Banks

Dr. G. Venkataswamy Eye Research Institute

Aravind Medical Research Foundation

Aurolab

GOVEL TRUST

Board of Trustees

President

ER. G. SRINIVASAN

Trust Secretary

DR. N. VENKATESH PRAJNA

Members

DR. G. NALLAKRISHNAN

DR. P. NAMPERUMALSAMY

Mrs. LALITHA SRINIVASAN

DR. G. NATCHIAR

DR. R. KIM

DR. S. ARAVIND

PRESIDENT, ROTARY CLUB, MADURAI

MAIN BRANCH – (EX-OFFICIO)

CENTRAL OFFICE

Chairman &

Director – Quality

DR. R.D. RAVINDRAN MS., DO

Chairman Emeritus &

Director – Research

DR. P. NAMPERUMALSAMY MS, FAMS

Directors Emeritus

DR. G. NATCHIAR MS, DO

DR. M. SRINIVASAN MS, DO

CENTRAL FUNCTIONS

FINANCE

Director

ER. G. SRINIVASAN BE, MS

Manager

N. SHANMUGASUNDARAM B.COM

OPERATIONS

Director

R.D. THULASIRAJ MBA

HUMAN RESOURCES

Director

DR. S.R. KRISHNADAS DO, DNB

Managers

R. DEEPA MHM

C. GNANASEKARAN MBA

ACADEMICS

Director – Residency Training

DR. N. VENKATESH PRAJNA DO, DNB,

FRCOphth

Mid Level Ophthalmic Personnel

DR. USHA KIM DO, DNB

PROJECTS

Director

DR. S. ARAVIND MS, MBA

INFORMATION TECHNOLOGY

Director

DR. R. KIM DO, DNB

Senior Manager

B.S. GANESH BABU M.COM, MS

Network Administrator

S.J. RAJAN MCA

Manager – Web Applications

S. SANTHA SUBBULAKSHMI

Manager

R. MALA MCA

ARAVIND COMMUNICATIONS

CHITRA THULASIRAJ B.SC

PURCHASE & MAINTENANCE

S. JAYACHANDRAN MHM

OUTREACH

Senior Manager

R. MEENAKSHI SUNDARAM MHM

VISION CENTRES

A.M.A. MANIMUTHU MHM, MBA, LLB,
M.Phil

BIOSTATISTICS

B. VIJAYAKUMAR M.SC

LIBRARY & INFORMATION CENTRE

P. KIRUBANITHI M.LI.SC, M.Phil

R. KUMARAGURUPARI MA, M.LI.SC, M.Phil

Aravind Eye Hospitals & Postgraduate Institute of Ophthalmology

RUN BY GOVEL TRUST

Aravind–Madurai

Chief Medical Officer / Professor

DR. R. KIM DO, DNB

Administrator / Professor

DR. S. ARAVIND MS, MBA

Assistant Administrator

DEEPA KRISHNAN BE, MBA

RETINA - VITREOUS SERVICES

Chief / Professor

DR. R. KIM DO, DNB

Professors

DR. P. NAMPERUMALSAMY MS, FAMS

DR. DHANANJAY SHUKLA MS, FAMS

Associate Professors

DR. K. NAresh BABU MS

DR. ANAND RAJENDRAN DO, DNB, FRCS(G)

Assistant Professors

DR. T.P. VIGNESH MS

DR. UMESH CHANDRA BEHERA MS

DR. PRAVEEN MURALY DNB

DR. KARTHIK S MS

DR. MANISH TONDON DNB

Tutor

DR. JATINDER SINGH MS

INTRAOCULAR LENS & CATARACT SERVICES

Chief / Associate Professor

DR. G. HARIPRIYA ARAVIND MS

Professors

DR. G. NATCHIAR MS, DO

DR. S. ARAVIND MS, MBA

DR. K. ILANGO DO, DNB

Associate Professors

DR. S. MAHESH KUMAR DO, DNB

DR. A. KOWSALYA DO, DNB

Assistant Professors

DR. H. KASTHURI BAI DO, DNB

DR. NIRAJ KUMAR AGARWAL MS

DR. ANUJA J MS

DR. REENA MASCARENHAS DO, DNB

DR. YESWANT RAJAGOPAL DO, DNB

Tutors

DR. MADHU SHEKHAR MS

DR. SATHYA T RAVILLA MS

DR. M. SOUNDARAM MS

DR. V.R. VIVEKANANDAN MS

DR. SYED ALI NAZAR MS

DR. SAUMENDRA NATH GHOSE MS

DR. JAMUNA DO, DNB

DR. TANPREET PAL SINGH MS

DR. SAKET PATIL SURENDRA DNB

DR. INDIRADURAI DNB

Medical Officers

DR. V.P. RAVICHANDRAN DO

DR. PAMONA SAMSON DO

DR. RUPA DO

DR. JAYASRI K.N. DO

DR. G. VEDHANAYAKI DO

CORNEA SERVICES

Chief / Professor

DR. N. VENKATESH PRAJNA DO, DNB, FRCOphth

Professor

DR. M. SRINIVASAN MS, DO

Associate Professor

DR. MANORANJAN DAS DNB

Assistant Professor

DR. JEENA MASCARENHAS MS

Tutor

DR. SEAN SOCRATES D SILVA MS

DR. PRAVEEN SUBUDHI MS

PAEDIATRIC OPHTHALMOLOGY & ADULT STRABISMUS SERVICES

Chief / Professor

DR. SHASHIKANT SHETTY MS

Professor

DR. P. VIJAYALAKSHMI MS

Associate Professor

DR. R. MURALIDHAR MD

Tutor

DR. RENUKA RAJAGOPAL MS

GLAUCOMA SERVICES

Chief / Professor

DR. GEORGE VARGHESE PUTHURAN MS

Director-HRD / Professor

DR. S.R. KRISHNADAS DO, DNB

Professor

DR. MANJU PILLAI DO, DNB

Associate Professor

DR. R. SHARMILA DNB

Assistant Professor

DR. R. PRASHANTH MS

DR. P.S. VIVEK DO, DNB

Tutor

DR. NEETHU MOHAN MS

Medical Officer

DR. S. VIDYA, DO

UVEA CLINIC

Chief / Professor

DR. S.R. RATHINAM DO, DNB, Ph.D

Assistant Professor

DR. RADHIKA T DNB

ORBIT, OCULOPLASTY AND OCULAR ONCOLOGY SERVICES

Chief / Professor

DR. USHA KIM DO, DNB

Associate Professor

DR. KAMAL PREET LIKHARI DO, DNB

Tutor

DR. N. VIDHYA MS

NEURO-OPTHALMOLOGY SERVICES

Chief / Associate Professor

DR. MAHESH KUMAR DO, DNB

Professor

DR. G. NATCHIAR MS, DO

Associate Professor

DR. A. KOWSALYA DO, DNB

VISION REHABILITATION CENTRE

Professor

DR. ILANGO DO, DNB

MICROBIOLOGIST

DR. S. LALITHA PRAJNA MD, DNB

ANAESTHETIST

DR. A. RAVICHANDAR MD, DA

FREE HOSPITAL

DR. V.P. RAVICHANDRAN DO

Assistant Administrator

R. RAMESH BABU M.A

Aravind Eye Hospitals & Postgraduate Institute of Ophthalmology

RUN BY GOVEL TRUST

PHYSICIAN

DR. BANUSHREE MD
DR. NAVEEN MS

OPTOMETRY, OPTICS & INSTRUMENTATION

Professor—Optics & Instrumentation
PROF. V.SRINIVASAN MA, MS (OREGON, USA)

NURSING

Nursing Superintendent

S. KRISHNAVENI

Assistant Nursing Superintendent

R. JEEVA

Staff – Tutor

ALEES MARY R.N.R.M

Staff – Theatre

ALIKUTTY VARGESE R.N.R.M

ADMINISTRATION

Transport & Public Relations
Officer

S.G. RAMANATHAN M.A

Manager – Office

K.S. KANDASAMY B.A

Manager – Medical Records

M. RAJKUMAR MA, BMRSC, PGDHM

Manager – Stores

M. MUTHUSAMY

Manager – Personnel

A. VENKATACHALAM

Manager – IT & Systems

S. RAJKUMAR M.SC, DCA

Manager – Inpatients

S. SUNYTHA MSW, MBA, DLL

Manager – Patient Care

ANJANA DEEP MBA

Manager – Quality Assurance

USHALINI MBA

Manager – Glaucoma Services

NIDHIN RAJ MHA

Manager – Retina Vitreous Services

A. SHOBANA B.SC, PGDHM

Manager – Camp Hospital

DAMIEN JACOB MBA

Manager—Paediatric Ophthalmology
& Adult Strabismus Services

KANKSHI BHAVSAR BPT, M.Sc, HHIA

Aravind–Theni

Chief Medical Officer / Professor

DR. DIPANKAR DATTA DO, DNB, MNAMS
(OPH)

Tutors

DR. PRADEEP S. REDDY MBBS, DNB, FICO
DR. R. PRASANNA DO

Manager – Outreach

V. JEYARAJ BA

Manager – Vision Centre

R. BALASIVA BA, MSW

Assistant Administrator

N. SIVARASU M.SC, DIP (LL & AL)

Nursing Superintendent

R. SEENIAMMAL

Aravind–Tirunelveli

Chief Medical Officer / Professor

DR. R. RAMAKRISHNAN MS, DO

RETINA - VITREOUS SERVICES

Tutors

DR. VENUGOPAL REDDY MS

DR. DHEERAJ KEWLANI MS

DR. SYED MOHIDEEN ABDUL KADHER MS

INTRAOCULAR LENS & CATARACT
SERVICES

Chief / Professor

DR. SHIVAKUMAR CHANDRASHEKAR MS

Tutors

DR. FATHIMA MS

DR. KUMAR ASHUTOSH DO

CORNEA SERVICES

Chief / Assistant Professor

DR. V. ANITA DNB

PAEDIATRIC OPHTHALMOLOGY &
ADULT STRABISMUS SERVICES

Chief / Professor

DR. R. MEENAKSHI DO, DNB

Tutor

DR. NEELAM PAWAR MS

GLAUCOMA SERVICES

Chief / Professor

DR. R. RAMAKRISHNAN MS, DO

Professor

DR. MOHIDEEN ABDUL KADER DNB

Tutors

DR. DEVENDRA MAHESHWARI MS

DR. MONA KHURANA MS

DR. ARJIT MITRA DNB

ORBIT, OCULOPLASTY AND OCULAR
ONCOLOGY SERVICES

Chief / Associate Professor

DR. V. MANEKSHA MS

NEURO-OPHTHALMOLOGY
SERVICES

Chief / Assistant Professor

DR. S. PADMAVATHY MS

Aravind Eye Hospitals & Postgraduate Institute of Ophthalmology

RUN BY GOVEL TRUST

GENERAL OPHTHALMOLOGY SERVICES

DR. R. RAMAKRISHNAN MS, DO
DR. V. MANEKSHA MS
DR. S. PADMAVATHY MS
DR. G. ANITHA DO, DNB
DR. RADHIKA REDDY MS
DR. PURUSHOTHAMAN MS
DR. ADARSH NAIK MS
DR. PRANEETH DNB

MICROBIOLOGIST

DR. M. JAYAHAR BHARATHI M.Sc, Ph.D

FREE HOSPITAL

Professor
DR. SAKTHIVEL MS
Manager
S. BALAKRISHNAN MS

NURSING

Nursing Superintendent
M.N. CHIDHAMBARAM
Assistant Nursing Superintendent
V. ARUMUGAM

ADMINISTRATION

Manager – Office
S. T. JAYABALAN B.A
Manager – Outreach
P. NAVANEETHA KRISHNAN P.U.C
Public Relations Officer
M. MAHADEVAN D.PHARM
Manager – Human Resource
R. LAKSHMI MBA
Manager – Patient Care
N. MOHAMMED GHOUSE MBA
Manager – Paediatric
Ophthalmology & Adult Strabismus Services
NEHA PANICKER B.Sc, PGDHM
Manager – Glaucoma Services
RANITHA GUNASELVI, BPT, MBA
Manager – IT & Systems
P. THIRUVENGADAM MA, PGDCA

Aravind - Coimbatore

Chief Medical Officer / Professor
DR. V. NARENDRA DO, DNB

RETINA – VITREOUS SERVICES

Chief / Professor
DR. V. NARENDRA DO, DNB
Professors
DR. RODNEY JOHN MORRIS MS
DR. V. R. SARAVANAN DO, DNB

Associate Professor

DR. PARAG K SHAH DNB
Assistant Professor
DR. JAYASHREE ARUNAPRAKASH DNB
DR. GEORGE J MANAYATH MS, FRCS

Tutors

DR. UPENDRA BABU M MS
DR. AMIT GUPTA
DR. HARSHALI

Medical Officer

DR. SARATH RAVI DO, MS

INTRAOCULAR LENS & CATARACT SERVICES

Chief / Professor
DR. KALPANA NARENDRA DO, DNB
Assistant Professors
DR. S. PADMA MS
Associate Professors
DR. KAVITHA YUVARAJAN DO, DNB
DR. S. GUHAPRIYA DNB

Tutors

DR. V. PRABHU MS
DR. VIDHYA ANANDAN DNB
DR. VISHNU POUNRAJ
DR. KALAIVANI

Medical Officers

DR. SHOBHA CHINNAN DO
DR. ANITHA MOHANAN DO, MS

DEPT OF CORNEA & REFRACTIVE SURGERY SERVICES

Chief / Professor
DR. R. REVATHI MS
Associate Professors
DR. ANITA RAGHAVAN DO, FRCS (G)

Assistant Professors

DR. K.S. SIDDHARTHAN DO, DNB, FRCS
DR. MANGALA P DNB

Tutor

DR. HARDIK MS

PAEDIATRIC OPHTHALMOLOGY & STRABISMUS SERVICES

Chief / Professor
DR. KALPANA NARENDRA DO, DNB
Assistant Professors
DR. S. RAMAKRISHNAN MRCO
DR. C. SANDRA DO, DNB
DR. RAJESH PRABHU DNB
DR. ARUNA RADHAKRISHNA DNB

GLAUCOMA SERVICES

Chief / Professor
DR. P. SATHYAN DO, DNB
Assistant Professors
DR. GANESH V. RAMAN MS
Tutors
DR. KAUSHIK DHUME DNB
DR. SHILPA DO, DNB

UVEA SERVICES

Assistant Professors
DR. KAWALI ANKUSH ASHOK DNB
DR. V.K. ANURADHA MD, FRCS

ORBIT, OCULOPLASTY & OCULAR ONCOLOGY SERVICES

Chief Medical Officer
DR. VIJI RANGARAJAN DO
Medical Officer
DR. DHIVYA DO

NEURO-OPHTHALMOLOGY SERVICES

Chief / Associate Professor
DR. KIRUBA EVANGELINE PAUL DO, DNB,
FRCS

SCIENTIST/ MICROBIOLOGIST

DR. MANIKANDAN, M.Sc, M.Phil., Ph.D

NURSING

Nursing Superintendent
S. SULOCHANA
Assistant Nursing Superintendent
R. RADHIKA

Aravind Eye Hospitals & Postgraduate Institute of Ophthalmology

RUN BY GOVEL TRUST

ADMINISTRATION

Assistant Administrator
M. RANJITH KUMAR B.Sc, PGDHM
Manager – Outreach
M. MURUGARAJU MA
Manager – Maintenance
K. M. SENNIAAPPAN B.Sc, B.TECH
Manager – HR & Patient Care
R. UMA PRIYA MA, PTSTA
Manager – Accounts
K. PALANISAMY MA
Manager – Transport
D. KARTHIKEYAN DIP, Cop
Manager – Paediatric
Ophthalmology & Strabismus Services
S. SANGEETHA MHA
Manager – Cornea Services
SUBEESH KUYYADIYIL MHA
Manager – Glaucoma Services
P. BALU MBA
Manager – Personnel
R. JEBADURAI BA, PGDPM
Civil Engineer
S. GANAPATHY DCE
Electrical Engineer
A.M. APPUSAMY DEE
Manager – IT & Systems
THIRUNAVUKARASU B.Sc
Manager – Opticals
M. MURUGESAN B.Com

Aravind - Pondicherry

Chief Medical Officer / Professor
Dr. R. VENKATESH DO, DNB
RETINA – VITREOUS SERVICES
Chief / Assistant Professor
Dr. PANKAJA DHOBLE MS
Tutor
Dr. MANAVI D. SINDAL MS
INTRAOCULAR LENS & CATARACT SERVICES
Chief / Assistant Professor
Dr. BADRINATH TALWAR MS
Medical Officer
Dr. MANAS NATH DO
CORNEA SERVICES
Chief / Associate Professor
Dr. TIRUVENGADA KRISHNAN DO, DNB
Tutor
Dr. SHIVANANDA MS
Dr. HARIKRISHNA KULKARNI DNB
PAEDIATRIC OPHTHALMOLOGY – CONTACT LENS SERVICES
Chief / Associate Professor
Dr. K. VEENA DO, DNB
Assistant Professor
Dr. MARIE FREDRICK MOUTTAPPA DO,
DNB
Tutor
Dr. PALLOVEE C. PALANISAMY MS
Dr. BISWAJIT DEY DNB
GLAUCOMA SERVICES
Chief / Professor
Dr. R. VENKATESH DO, DNB
Assistant Professor
Dr. S. KAVITHA MS
Tutor
Dr. K. PALANISAMY MS
Dr. SHIRAZ ALI MS

ORBIT & OCULOPLASTY SERVICES

Assistant Professor
Dr. JAYAGAYATHRI DO, DNB
Dr. SHAH SAGAR DNB

NEURO-OPHTHALMOLOGY SERVICES

Medical Officer
Dr. K. NIRMALADEVY DO

GENERAL OPHTHALMOLOGY SERVICES

Tutors
Dr. DAYAKAR YADALLA MS, FRCS
Medical Officer
Dr. PRATHMESH G. MEHTA DNB
Dr. PRAVEEN DHANAPAL DNB
Dr. JAYASUDHA DO
Dr. JOSEPHINE CHRISTY S MS
Dr. JAYASHREE B DO, DNB

ADMINISTRATION

Manager – Administration
P. POOBALAN B.COM
Manager – General
P. KANAGARAJ BE
Manager – HR
A. SUMATHI MBA
Manager – Accounts
J. SOLAIMUTHU P.U.C
Manager – Maintenance
P. THANAPAL DCE
Manager – Outpatient Services
D. VASANTH EMMANUEL B.Pharm, MBA
Manager – Inpatient Services
N. VENGADESAN MBA
Manager – Paediatric
Ophthalmology Clinic–City Centre
A. PRIYA MBA
Manager – IT & Systems
M. ASHOK MCA
MICROBIOLOGIST
A. THILAGAVATHI M.Sc, M.Phil
Nursing Superintendent
R.V. SELVARANI

Lions Aravind Institute of Community Ophthalmology

Aravind Eye Banks

Aravind – Dindigul

Medical Consultant

DR. DEEPAK KUMAR MS

Manager

R. BALASUBRAMANI M.SC

Aravind – Tirupur

Chief Medical Officer

DR. SELVI SELVAKUMAR DO, DNB

Administrator

MR. GANESHAMOORTHY

Manager

G. CHIDAMBARAM BA, PTS

Aravind – Salem

RETINA - VITREOUS SERVICES

Chief Medical Officer

DR. M. MANJUNATH MBBS., MS

CORNEA CLINIC

Chief Medical Officer

DR. B.R. RAVI TEJA MS, FICO

GLAUCOMA CLINIC

Chief Medical Officer

DR. T.R. MURALI DO, DNB, MNAMS

DR. K. RAMAKRISHNA MS, FICO

UVEA SERVICES

Chief Medical Officer

DR. B. MANOHAR BABU MS

GENERAL

DR. G. RAHUL NAIR MS

DR. T. SELVARANI MBBS, DO

Nursing Superintendent

S.R. INDIRANI

ADMINISTRATION

Manager

MR. MANICKAM

IT & Systems

MR. HUSSAIN

RUN BY GOVEL TRUST

Grant Administrator

LN. N.A.K. GOPALAKRISHNARAJA MJF

Executive Director

MR. R.D. THULASIRAJ MBA

Senior Faculty

B. S. GANESH BABU M.COM, MS

R. MEENAKSHI SUNDARAM MHM

K. M. SASIPRIYA MHM

Faculty

SANIL JOSEPH MHM

R. SURESH KUMAR MA, PGDHM

V. VIJAYAKUMAR MSW, M.PHIL

Faculty Associate

MS. DHIVYA RAMASAMY MBA

MR. MOHAMMAD GOWTH MA, PGDHM

MR. FRANCO FRANCIS

Manager – Auroshiksha

P. VINOOTH MSW (HRM)

Administrator

G. KRISHNA VENI M.SC

ROTARY ARAVIND INTERNATIONAL EYE BANK, MADURAI

Medical Director

DR. M. SRINIVASAN MS

Technical Director

DR. LALITHA PRAJNA MD, DNB

Medical Director Designee

DR. JEENA MASCARENHAS MS

Eye Bank Manager

MR. SARAVANAN MSW, M.Phil, MBA(HR)

ROTARY ARAVIND EYE BANK, TIRUNELVELI

Medical Director

DR. MEENAKSHI DO, DNB

Medical Director Designee

DR. ANITHA DIP.NB

ARAVIND - IOB EYE BANK, COIMBATORE

Medical Director

DR. R. REVATHI MS, DO

Medical Director Designee

DR. ANITHA RAGHAVAN DO, FRCS (G)

ARAVIND EYE BANK ASSOCIATION OF PONDICHERRY

Eye Bank Medical Officer

DR. K. THIRUVENGADA KRISHNAN DO,

DNB

Medical Director Designee

DR. N. SHIVANATH MS

**Dr. G. Venkataswamy
Eye Research Institute**

Run by Aravind Medical
Research Foundation

President

DR. P. NAMPERUMALSAMY MS, FAMS

Vice President

DR. G. NATCHIAR MS, DO

Secretary & Treasurer

DR. R. KIM DO, DNB

Director – Research

DR. VR. MUTHUKKARUPPAN M.Sc, Ph.D

**DEPARTMENT OF MOLECULAR
GENETICS**

Senior Scientist

DR. P. SUNDARESAN M.Sc, Ph.D

Scientist

DR. A. VANNIARAJAN M.Sc, Ph.D

**DEPARTMENT OF IMMUNOLOGY &
STEM CELL BIOLOGY**

Scientist

DR. VR. MUTHUKKARUPPAN M.Sc, Ph.D

DR. GOWRIPRIYA CHIDAMBARAMATHAN
M.Sc, Ph.D

**DEPARTMENT OF OCULAR
PHARMACOLOGY**

Scientist

DR. S. SENTHILKUMARI M.Pharm, Ph.D

DEPARTMENT OF PROTEOMICS

Adjunct Professor

DR. K. DHARMALENGAM M.Sc, Ph.D

Scientist

DR. N. LINI M.Sc, Ph.D

DEPARTMENT OF MICROBIOLOGY

Clinician Scientist

DR. SR. RATHINAM MNAMS, Ph.D

DR. LALITHA PRAJNA MD DNB

Aurolab

Run by Aurolab Trust
Board of Trustees

Trust President

R.D. THULASIRAJ MBA

Trust Secretary

DR. S. ARAVIND MS, MBA

Members

MR. G. SRINIVASAN BE, MS

DR. P. NAMPERUMALSAMY MS, FAMS

DR. G. NATCHIAR MS, DO

DR. R. KIM DO, DNB

Managing Director

DR. P. BALAKRISHNAN BE, Ph.D

Director – Operations

R.D. SRIRAM BE

Division Manager – Pharmaceuticals

V. VENKATESA KANNAN M.Sc, PGDPMIR

Division Manager – Intraocular Lens

R.D. SRIRAM BE

Manager – Administration &
Accounts

V. SRINIVASAN

Marketing Manager – Exports

N. VISHNU PRASAD MHM, MBA

Marketing Manager – Domestic

S. SIVANAND B.Sc, MBA

Manager – Regulatory Affairs

R. KRISHNA KUMAR B.Pharm, MS

Manager – HR

SWETHA V MBA

Manager – IT & Systems

K.R. SANKAR M.Sc

ARAVIND EYE HOSPITALS & POSTGRADUATE INSTITUTE OF OPHTHALMOLOGY

Aravind-Madurai

1, Anna Nagar, Madurai 625 020, Tamilnadu, India. Phone: (0452) 435 6100

Aravind-Theni

Periyakulam Road, Theni 626 531, Tamilnadu, India. Phone: (04546) 252 658

Aravind-Tirunelveli

S.N. High Road, Tirunelveli Jn. 627 001, Tamilnadu, India. Phone: (0462) 435 6100

Aravind-Coimbatore

Avinashi Road, Coimbatore 641 014, Tamilnadu, India. Phone: (0422) 436 0400

Aravind-Pondicherry

Cuddalore Main Road, Thavalakkuppam, Pondicherry 605 007, India. Phone: (0413) 261 9100

Aravind-Salem

Sankagiri Main Road, Nethimedu, Salem 636 002, India. Phone: (0427) 435 6100

LIONS ARAVIND INSTITUTE OF COMMUNITY OPHTHALMOLOGY
72, Kuruvikaran Salai, Gandhinagar, Madurai 625 020, Tamilnadu, India. Phone: (0452) 435 6500

ROTARY - ARAVIND INTERNATIONAL EYE BANK

MEMBER INTERNATIONAL FEDERATION OF EYE BANKS

1, Anna Nagar, Madurai 625 020, Tamilnadu, India. Phone: (0452) 435 6100

**DR. G. VENKATASWAMY EYE RESEARCH INSTITUTE
ARAVIND MEDICAL RESEARCH FOUNDATION**

1, Anna Nagar, Madurai 625 020, Tamilnadu, India. Phone: (0452) 435 6550

AUROLAB

1, Sivagangai Road, Veerapanjan, Madurai 625 020, Tamilnadu, India. Phone: (0452) 244 6100

www.aravind.org



World Health Organization
Collaborating Centre
For Prevention of Blindness



ARAVIND EYE CARE SYSTEM