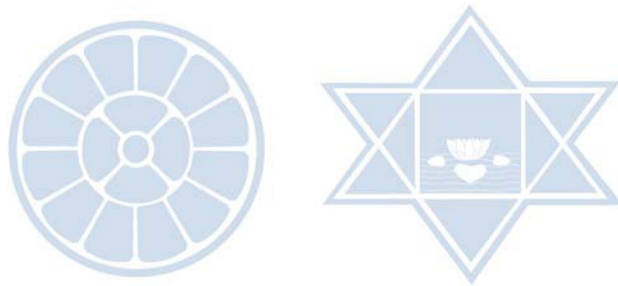




2007-2008

# activity report

ARAVIND EYE CARE SYSTEM



*Always the Ideal beckoned from afar.  
Awakened by the touch of the Unseen,  
Deserting the boundary of things achieved,  
Aspired the strong discoverer, tireless Thought,  
Revealing at each step a luminous world.  
It left known summits for the unknown peaks:  
Impassioned, it sought the lone unrealised Truth,  
It longed for the Light that knows not death and birth.  
Each stage of the soul's remote ascent was built  
Into a constant heaven felt always here.*

*Book Two: The Book of the Traveller of the Worlds ,  
Canto Twelve: The Heavens of the Ideal  
Savitri, Sri Aurobindo*

*Our effort is to make Aravind an instrument of the Divine Will. We strive to forget our limitations and work with the direction of the Divine Will, not in a vain superficial way but with a deep commitment and faith that guidance comes from a higher level of consciousness. Then one is able to work with the great confidence that comes only with that faith and realisation that we are all part of a spiritual capacity or spiritual power. It is then that all of nature works with you. You don't feel that you are a superior being but you are an instrument in the hands of a higher force and it is in that spirit that we meet our day to day struggles and successes.*

*-Dr. G. Venkataswamy*



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*Front Cover:*

*Aurolab's new facility at Veerapanchan with  
Lighting the lamp in the foreground  
Background: Mother and daughter at  
Aravind-Madurai Free section*

*Backcover:*

*Dr. A.P.J. Abdul Kalam and Dr. Natchiar at  
the inauguration of the Aravind Ophthalmic  
Virtual Academy  
Inauguration of Priyamvada Birla Aravind  
Eye Hospital in its new facility, Kolkata  
Aravind's senior staff on a tour in Singapore*

*Photo Credits:*

*Isakki Raja, Aravind-Tirunelveli  
Jeyakrishnan, Aravind-Madurai  
Magnus Rew, UK  
Mike Myers, USA  
Sukumar, Aravind-Puducherry  
Rajkumar, Aravind-Madurai  
Thirunavukkarasu, Madurai*

# ARAVIND EYE CARE SYSTEM

## MISSION:

*To eliminate needless blindness . . .*

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

**ARAVIND EYE HOSPITALS**

*. . . through teaching, training, capacity building, research, publications and advocacy*

**LIONS ARAVIND INSTITUTE OF COMMUNITY OPHTHALMOLOGY  
(LAICO)**

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

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

*. . . by making high quality ophthalmic products affordable and accessible worldwide*

**AUROLAB**

*. . . by reducing corneal blindness through eye banking activities, training, research and public awareness programmes*

**ARAVIND EYE BANKS**

*. . . by working with socially committed partners in underserved areas of India and other developing countries*

**ARAVIND MANAGED EYE CARE SERVICES (AMECS)**



Prémio  
António  
Champalimaud  
de Visão  
2007

F  
Fundação  
Champalimaud



*The venue of the Champalimaud award, Lisbon Portugal  
Inset: Mr. G. Srinivasan with the award*

## DEFINING MOMENTS

2007-2008

**E**very organisation has its share of defining moments that determine the course of its future. At Aravind, the year 2007-2008 yielded a wealth of such moments.

### NEW EMPHASIS

Construction work of the Dr. G. Venkataswamy Eye Research Institute, for which the foundation stone was laid by India's former President, His Excellency Dr. APJ Abdul Kalam, is now in full swing. The building is scheduled for inauguration on October 1, 2008, being the 90th birthday of Dr. G. Venkataswamy. The establishment of this institute reflects Aravind Eye Care System's new and growing emphasis on the field of research.

### INCREASING SCOPE AND SCALE

With the relocation to its new, world-class manufacturing facility, inaugurated by Dr. Allen Foster, Christian Blind Mission, Aurolab now has significantly enhanced its capacity to make high quality ophthalmic supplies available at affordable costs to developing nations.

In addition to meeting its ongoing commitments, Aurolab is increasing its investment in product development. During the year, prototypes of a low-cost green laser for treating Diabetic Retinopathy were developed. 'Aurogel' which is Sodium Hyaluronate was brought to market. This is the first product of its kind that does not require refrigeration,

*At the inauguration of Aurolab's new facility at Veerapanchan*



thus making it relevant to the developing world. Aurolab is one of the pioneering companies in India now making hydrophobic foldable intraocular lenses (Aurovue) which make advanced surgeries like phacoemulsification more affordable.

### NEW FRONTIERS

Sudarshan Netralaya, a new facility in Amreli, Gujarat was opened on July 20, 2007, making it the third in the series of managed eye hospitals. The first of its kind, the Priyamvada Birla Aravind Eye Hospital moved into a large new facility this year. These facilities now come under the umbrella of the newly formed Aravind Managed Eye Care Services (AMECS). In recognition of its tremendous potential, AMECS received a substantial grant from Narotam Sekhsaria Foundation to strengthen its work and develop a roadmap for enhancing eye care in Rajasthan.

Aravind Virtual Ophthalmic Academy was inaugurated on January 19, 2008 by Dr. A.P.J Abdul Kalam, former President of India. Dr. Sathyamurthy, Director, ANTRIX Corp., ISRO (Indian Space Research Organisation) addressed the function attended by distinguished guests, ophthalmologists and staff of Aravind. Initially Aravind Virtual Academy will cover the five hospitals of Aravind and in the next phase the education network will be extended to 30-40 of 231 hospitals that LAICO has partnered with. With the VSAT connectivity provided by ISRO, the classes conducted at Aravind-Madurai will be broad casted live to classes at various centres. The software used will provide close to real classroom experience.

*Dr. A.P.J. Abdulkalam with ophthalmic assistants during the inauguration of the Aravind Virtual Ophthalmic Academy*



*Dr. Kim, Dr. Mehra, Dr. Namperumalsamy, Mr. Lee, and Dr. M. Srinivasan at the inauguration of the Aravind Topcon Centre*

An advanced centre for retinal diseases has been established at Aravind-Madurai in association with Topcon South Asia Pvt Ltd., Singapore, with state-of-the art imaging equipment for training and research in retinal diseases. Mr. Calvin Lee, Director, Topcon South Asia, inaugurated the, 'Aravind-Topcon Centre for Diseases of Retina and Vitreous,' on January 29, 2008 at Aravind-Madurai.

### DEEPENING COMMUNITY OUTREACH

During the year a spate of new facilities were opened to enhance patient access - 17 Vision Centres were commissioned, a new Community Eye Clinic was opened at Cumbum in Theni district; the Community Eye Clinic in Tuticorin moved into Aravind's own building, and will soon develop into a surgical centre.



*Mr. R.Meenakshisundaram and Mr. Venkatesh in Nkhoma, Malawi*

### **A NEW PARTNERSHIP MODEL**

Shalina Eye Hospital at Lubumbashi, Congo and Grameen GC Eye Hospital at Bogra, Bangladesh were opened during the year. These were carried out as turnkey projects with Aravind-LAICO involved in the building design, selection of staff, in-house training, IT and systems installation, and dispatching a start-up team for the hospital.

### **LOOKING AT THE BIG PICTURE**

In partnership with international NGOs working in eye care such as Right to Sight (Ireland), Fred Hollows Foundation (Australia) and related governments, LAICO has rich opportunity to directly shape nationwide plans related to eye health care. A beginning in this direction was made when LAICO was requested by the Ministry of Health and VISION 2020 – The Right to Sight India to draft the Eleventh Five Year plan for India. This was followed by

opportunities to work on national plans for Rwanda, Eritrea and Malawi.

### **THE OCTOBER SUMMIT**

The inauguration of Aurolab’s new facility marked the beginning of a series of activities now referred to as the ‘October Summit’. This period saw the release of a series of eight books, probably the first of its kind, geared to standardise the learning and eventually raise the caliber of Mid-level Ophthalmic Personnel, ranging from those working in operating rooms to those involved in housekeeping duties. The October Summit also brought together eye care experts from around the globe to address two critical issues – “Reaching the Unreached” and “Achieving Service Excellence through Benchmarking”.

### **HONOURS**

Portuguese entrepreneur, António de Sommer Champalimaud bequeathed a large portion of his estate to form a foundation to promote health care and service to humanity. Among other activities, the ‘Champalimaud Foundation’ has instituted an annual award of one million Euros, that will alternate each year between excellence in service delivery and excellence in research, both in the field of eye care. Aravind Eye Care System had the honour of being the very first recipient of this global award in recognition of its services which transcend the boundaries of Tamilnadu to encompass the rest of India and the developing world through its various initiatives. The award was presented to Dr. P. Namperumalsamy, Chairman, Aravind Eye Care System, by the President of Portugal at an elegant function held in Lisbon, Portugal in

*Workshop on Training of Trainers for Allied Health Personnel in Ophthalmology*





September 2007. Mr. G. Srinivasan, Dr. G. Natchiar and Mr. R.D. Tulasiraj were also present at the ceremony. During the year several individuals of Aravind Eye Care System received recognition for their work. Dr. M. Srinivasan received the Rotary ‘For the Sake of Honour Award’; Dr. Ramakrishnan was made a distinguished member as ‘International Fellow of Spaeth Society’; Mr. R.D. Thulasiraj received national recognition from GE Healthcare and Info Media India as the ‘Administrator of the Year’.

### EMPLOYEE CENTRED

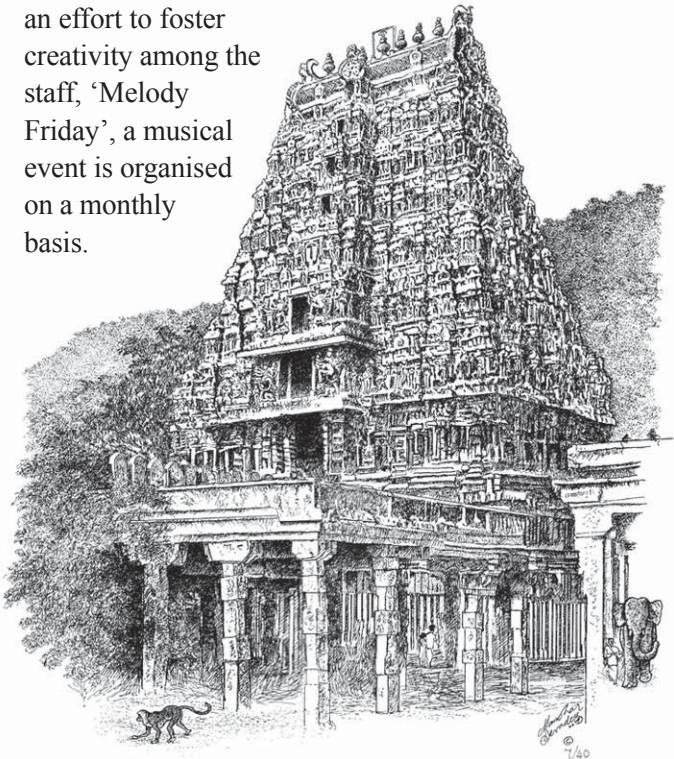
Aravind’s rapid and multi-faceted growth would not be possible without the organisation’s community centric and more importantly, employee centric approach. Four of the Aravind hospitals now have child care centers, a crucial service given for the women employees who constitute the majority of Aravind’s staff. These centers afford the hospital’s

*Mr. Manohar Devadoss with Dr. Usha at the launch of “Multifacets of My Madurai”*



*Children at the tenth anniversary celebration of the Janakiamma Child Care Centre*

working mothers, not just peace of mind and greater work focus, but also, through various developmental activities, nutritious meals, and a caring environment, the chance to see their children truly flourish. In order to enhance the overall health of Aravind employees, “Aurowel”, a system-wide health programme was launched by the HR department that involved a complete physical examination for all the employees, with more detailed examination for those over forty. The programme was extremely well-received and allowed many to initiate timely health interventions. For those interested in outdoor activities, the hospitals now also have fitness centres, and in an effort to foster creativity among the staff, ‘Melody Friday’, a musical event is organised on a monthly basis.



## A UNIQUE FRIENDSHIP

Aravind, as a socially conscious institute takes responsibility for nurturing the environment around it. And over the years the organisation has built many connections both with institutions and individuals. One such special connection was developed between Aravind and a remarkable couple, Manohar and Mahema Devadoss. Manohar Devadoss is now blind from advanced retinitis pigmentosa, and his wife spent over three decades in a wheelchair after an accident left her quadriplegic. The basis for this unique friendship was the Devadosses' abiding love for Madurai, and the courage and grace of their daily lives. Manohar Devadoss is the author of several books, his most recent being a collection of exquisite ink sketches titled 'Multiple Facets of My Madurai'. Aravind organised the launch of this book at Madurai as a city event on 25th August 2007. The passing of Mahema Devadoss in 2008 was a loss deeply felt by the organisation and leaves a void very difficult to fill.

## LOOKING WITHIN

Meeting ambitious growth targets and working effectively towards a shared mission require alignment within the organisation and tapping the latent abilities of individuals. To accomplish this, functional teams cutting across all the hospitals ranging from secretaries to doctors, engaged in a guided process of self-exploration and visioning. The four day retreat for each of these teams consisted of two days of outbound learning at the 'Pegasus Institute for Excellence' on the shores of Bay of Bengal near Puducherry. This was followed



*Refraction and Opticals Team at the Pegasus Institute*

by a two day visioning retreat which looked at opportunities, set long-term direction, defined immediate goals and identified the resources required to realise them. Pegasus Institute offered this training at no-cost in a generous and gracious gesture of goodwill.

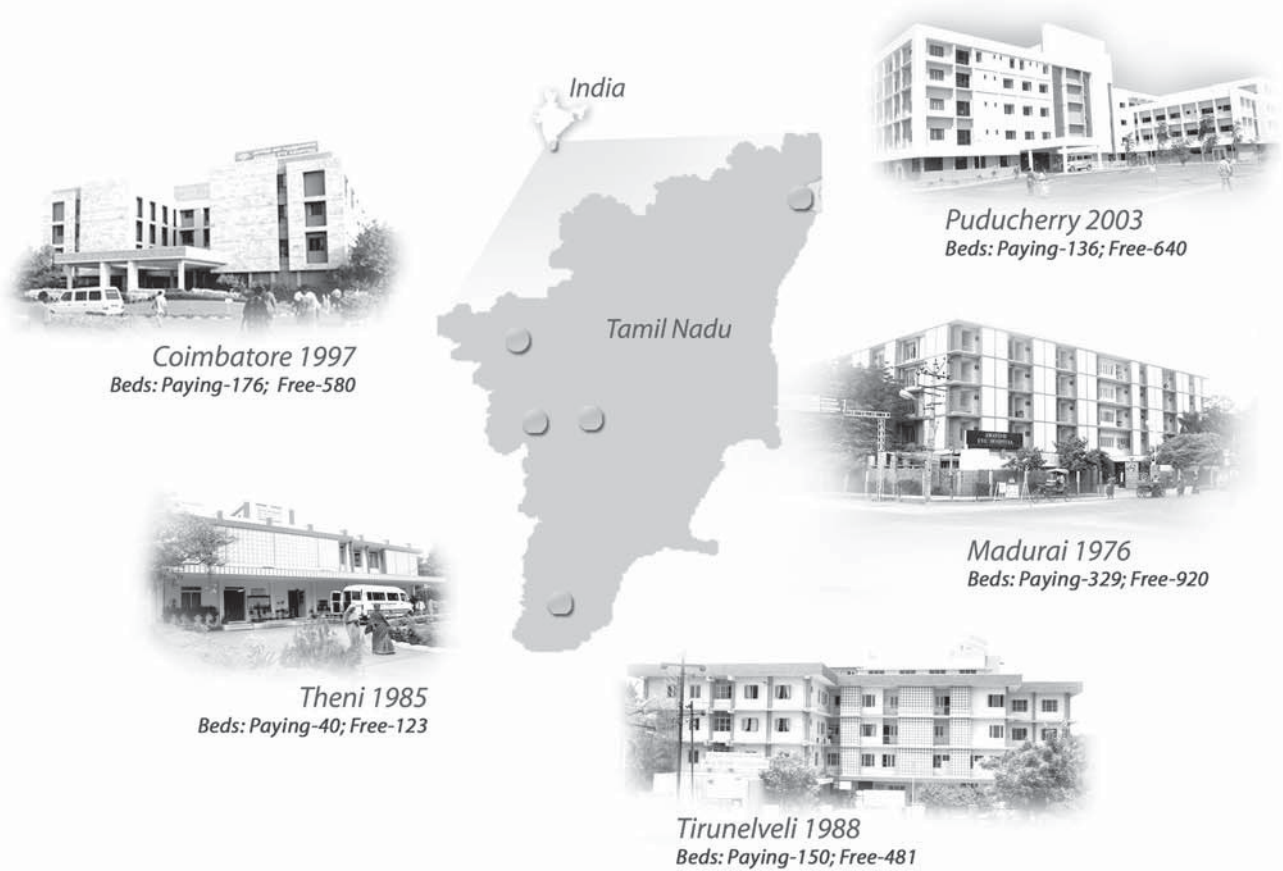
All of these happenings during the year have opened up new avenues, partnerships and perspectives. Collectively these events will help chart the course of Aravind Eye Care System in the years to come and accelerate its inspiring journey towards eliminating needless blindness. Recognising that this will demand significant leadership capabilities, 'Yogam', a proactive process was initiated to foster leadership in the organisation. This program which will become a regular feature was designed as a conscious exploration of 'altruism with pragmatism' with special attention paid to everyday application to work life at Aravind.

*Senior doctors and organising team at the Yogam-Phase I held at Puducherry*



## ARAVIND EYE HOSPITALS

Mission: To eliminate needless blindness by providing compassionate and high quality eye care for all



### Aravind Managed Eye Care Services (AMECS)

... working with socially committed partners in underserved areas of India and other developing countries



INDIRA EYE HOSPITAL AND RESEARCH CENTRE  
GANDHI  
In Collaboration with Aravind Eye Care System

Amethi, Uttar Pradesh 2005

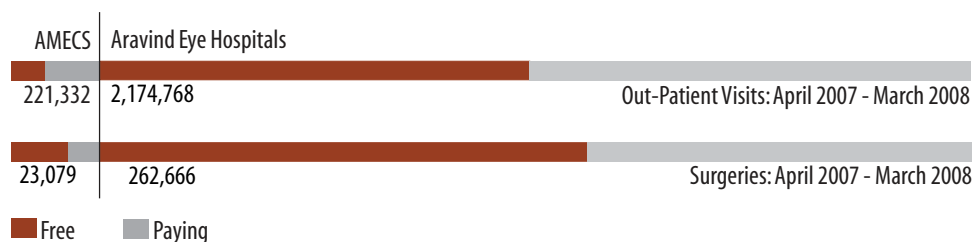
## PERFORMANCE: APRIL 2007 - MARCH 2008

### ARAVIND EYE HOSPITALS

(includes Aravind Managed Eye Care Services -AMECS)\*

	Madurai	Theni	Tirunelveli	Coimbatore	Puducherry	AMECS*	Total
<b>Hospital Out Patient Visits</b>							
Paying (New & Review)	408,461	64,008	185,110	268,312	175,263	138,824	1,239,978
Free (Direct walk-in)	139,947	20,647	63,556	97,395	51,395	-	372,940
<b>Outreach</b>							
Comprehensive Free Eye Camps	120,585	26,223	50,610	104,946	79,237	63,930	445,531
Diabetic Retinopathy Camps	20,959	4,574	10,628	26,626	23,958	-	86,745
Refraction Camps	7,632	4,802	8,261	2,155	1,787	12,843	37,480
School Screening	26,489	13,230	17,975	4,283	1,332	5,735	69,044
Vision Centres	18,308	23,426	10,558	4,729	6,022	-	63,043
Community Eye Clinics	33,002	1,512	22,861	23,964	-	-	81,339
Total OP Examinations	775,383	158,422	369,559	532,410	338,994	221,332	2,396,100
<b>Surgeries</b>							
Paying	51,540	3,884	17,897	28,168	14,185	8,436	122,900
Free(Direct & Camp)	55,657	6,188	21,388	41,305	22,454	14,643	162,845
Total Surgeries	107,197	10,072	39,285	69,473	36,639	23,079	285,745
<b>Surgery Details</b>							
Cataract surgeries	71,642	8,165	26,924	46,977	25,912	20,503	200,123
Trab & combined procedures	2,217	127	1010	1,457	669	538	6,018
Retina & vitreous surgery	2,725	10	917	3,190	897	115	7,854
Squint correction	872	0	130	452	74	2	1,530
Keratoplasty	562	0	94	250	107	48	1,061
Pterygium	1,832	95	151	681	350	173	3,282
Ocular injuries	366	11	77	439	255	0	1,148
Lacrimal surgeries	2,339	130	782	865	723	108	4,947
Other orbit and oculoplasty surgeries	3,480	184	687	1,287	750	214	6,602
Other surgeries	1,663	70	336	1,101	1,441	290	4,901
Laser procedures	17,836	1,280	7,656	12,050	5,120	1,088	45,030
LASIK refractive surgery	1,663	0	521	724	341	0	3,249
Total Surgeries	107,197	10,072	39,285	69,473	36,639	23,079	285,745

\* AMECS: Priyamvada Birla Aravind Eye Hospital, Kolkata, West Bengal; Indira Gandhi Eye Hospital and Research Centre, Munshiganj, Uttar Pradesh; Sudarshan Netralaya, Amreli, Gujarat





*Dr. P. Namperumalsamy with  
Haji. APJ. M. Maraickayer at the  
inauguration of the Primary Eye  
Examination Centre at Rameswaram*

## COMMUNITY OUTREACH

2007-2008

**L**aunched with the aim of reaching the unreached, Aravind's community outreach programmes have always been an indispensable element of Aravind in its relentless war against needless blindness. Apart from providing various curative, preventive and rehabilitative measures, they also conduct awareness creation campaigns for the general public which have, to a considerable extent, succeeded in the mission. The community outreach teams of all five hospitals, consisting of thirty-five camp managers and organisers in all, draw an annual outreach plan at the end of the year to plan for the year ahead. Each hospital outreach unit organises an annual meet with the camp sponsors to solicit their ideas on how to extend services further and to recognise their invaluable contribution to Aravind's mission of eliminating needless blindness.

### **PRIMARY EYE EXAMINATION CENTRES AND COMMUNITY EYE CLINICS**

To cater to the strong need for developing permanent primary eye care services especially in the rural areas to ensure easy access, Aravind has blended

information technology innovatively into the 'Vision Centres', facilitating online consultation based on low cost telemedicine approach for each patient with the ophthalmologist at the Secondary or Tertiary hospital. This approach helps patients acquire right treatment advice directly from ophthalmologists which saves a lot of time and money to the patients. Each Vision Centre covers a population of about 50,000.

In the year ending March 2008, seventeen vision centres, now rechristened as Primary Eye Examination Centres were opened across far and near areas around all Aravind Eye Hospitals with support from Lavelle Fund, US at Alanganallur, Thiruppuvanam, Srivaikuntam, Thirukannur, Rameshwaram, Marakanam, Periyannayakkanpalayam, Gandhigram, Kinathukadavu, Madukarai, Natham, Kuruinjippadi, Surandai, Puliampatty, Vilathikulam, and Solavandan.

On February 18, 2008 a Community Eye Clinic was inaugurated in Cumbum, Theni district. Community Eye Clinics provide holistic eye care services to the rural mass with the presence of ophthalmologist and a dedicated medical team.

## OUTREACH PERFORMANCE

	Madurai	Theni	Tirunelveli	Coimbatore	Puducherry	AMECS*	Total
<b>Comprehensive Eye Camps</b>							
Camps	377	107	243	382	336	339	1,784
Patients examined	120,585	26,223	50,610	104,946	79,237	63,930	445,531
Glasses advised	19,533	6,294	8,665	18,672	14,644	-	67,808
Glasses ordered	15,900	5,091	7,037	14,752	11,453	-	54,233
On the spot deliveries	12,850	2,839	5,410	10,686	8,413	-	40,198
Percentage	81%	56%	77%	72%	73%	-	74%
<b>Diabetic Retinopathy (DR) Screening Camps</b>							
Camps	25	18	60	214	69	-	386
Patients screened	7,897	4,574	10,628	26,626	23,958	-	73,683
Diabetics identified	2,847	637	3,261	6,113	5,180	-	18,038
DR Patients identified	481	118	572	1,091	648	-	2,910
<b>Mobile Van DR Screening Camps</b>							
Camps	51	--	--	--	--	-	51
Patients screened	13,062	--	--	--	--	-	13,062
Diabetics identified	2,449	--	--	--	--	-	2,449
DR Patients Identified	532	--	--	--	--	-	532
<b>Refractive Error Camps</b>							
Camps	34	18	37	15	6	155	265
Patients examined	7,632	4,802	8,261	2,155	1,787	12,843	37,480
Glasses prescribed	2,356	968	2,079	533	573	-	6,509
Glasses ordered	1,960	815	1,808	494	445	5,978	11,500
On the spot deliveries	1,554	519	1,249	349	159	1,560	5,390
Percentage	79%	64%	69%	71%	36%	-	69%
<b>Eye Screening of School Children</b>							
Schools	107	31	16	31	2	28	215
Teachers trained	120	-	95	52	4	5,735	6,006
Children screened	26,489	13,230	17,975	4,283	1,332	218	63,527
Children with eye defects	1,340	837	1,167	1,537	41	34	4,956
<b>Primary Eye Examination Centres</b>							
Centres	6	5	4	3	4	-	22
New + review	18,308	23,426	10,558	4,729	6,022	-	63,043
Outpatients / day	18	16	18	13	10	-	15
<b>Community Eye Clinics</b>							
No. of Centres	2	1	1	1	-	-	5
New + review	33,002	1,512	22,861	23,964	-	-	81,339
Outpatients / day	55	42	76	80	-	-	59

## DIABETIC RETINOPATHY INITIATIVES

With the growing number of diabetics in India there is a simultaneous escalation in the number afflicted with Diabetic Retinopathy. Since timely intervention can prevent up to 60-70% of vision loss, Aravind with the support of Lions Clubs International, Sightsavers International and World Diabetes Foundation has engaged in various activities to control Diabetic Retinopathy since January 2000. A working model was developed to screen diabetes patients for diabetic retinopathy and the afflicted are given treatment. As a Centre of Excellence in Diabetic Retinopathy under TIFAC-CORE, Aravind is becoming a world leader in patient care, research and training related to Diabetic Retinopathy.

A total of 85 awareness seminars were conducted across all Aravind Eye Hospitals in the year ending March 2008. 7,552 participants including Medical Officers from various NGOs and Primary Health Centres participated in these seminars. Twelve exhibitions were also conducted for the general public.

### REMOTE EVALUATION OF DIABETIC FUNDUS THROUGH TELE-OPHTHALMOLOGY APPROACH

At present, most of the diabetics come to the ophthalmologists only after experiencing considerable vision loss. Their first point of contact is a Diabetologist/Physician who manages their

*Dr. Shukla reading a fundus image at the Reading and Grading Centre, Aravind-Madurai*



diabetes and related general complications. Most physicians do not refer diabetic patients for routine examination of the retina. Even if they did, very few show up. The Aravind Diabetic Retinopathy Evaluation Software (ADRES) was developed by Aravind Eye Hospital's TIFAC-CORE with the support of TOPCON South Asia Private Ltd., Singapore. This can be used at other eye hospitals where retina specialists are not available.

Diabetologists using a fundus camera, can send the retinal images of the diabetes patients to the Reading Centre at Aravind Eye Hospital for grading and further management.

### TRAINING AND OBSERVATION

Long term and short term courses are offered for ophthalmologists and ophthalmic technicians to manage Diabetic Retinopathy.

Representatives from several eye care centres such as Metro District Eye Care Services, Woodstock, Cape Town, South Africa, H.V. Desai Eye Hospital, Pune, Maharashtra and Vivekananda Mission Ashram Netra Niramay Niketan, Haldia, West Bengal visited Aravind in the year ending March 2008. They were here to know more about the system and procedures used by Retina clinic, Aravind - Madurai.

### ROADMAP FOR PROMOTING DIABETIC RETINOPATHY SERVICES

The Aravind DR team released on 23rd January, 2008 the "Guidelines for developing Diabetic Retinopathy Programme in India" the guidelines is to assist the regional and area offices of Sightsavers International, India in developing a roadmap for promoting Diabetic Retinopathy Services in India, strategies to be adopted and the execution plan.

*Graduation Ceremony of the Ophthalmic  
Assistants - May 2007*



## EDUCATION AND TRAINING

2007-2008

**A**ravind Eye Hospitals have attained worldwide reputation for their service orientation which provides high quality and compassionate eye care to all. Along with providing excellent eye care, Aravind acknowledges the need for dissemination of knowledge and skills to satisfy the needs of the institution and the country. Several training programmes have been designed to develop human resource in the field of eye care delivery. These training programmes, both long term and short term, are intended not only for ophthalmologists but also for ophthalmic technicians, opticians, clinical assistants, outreach coordinators and hospital and programme managers in eye care. Ophthalmology Residents from various universities in the USA rotate through Aravind during the final year as part of their Residency in Ophthalmology. In the year ending March 2008, nineteen such students rotated through Aravind Eye Hospitals.

In the last year, the following new courses were introduced:

- Diploma in Ophthalmic Techniques - 2 years
- Short Term Course in OT Techniques - 2 months
- Short Term Course in Refraction Techniques- 2 months

Aravind Virtual Ophthalmic Academy was officially inaugurated on January 19, 2008 by His Excellency, Dr. APJ Abdul Kalam, former President of India. In the beginning, the academy will cover five Aravind

Eye Hospitals. Subsequently it will enhance its coverage to 30-40 of the 230 hospitals that LAICO currently collaborates with. Equipped with the VSAT connectivity provided by ISRO, the classes conducted at Aravind Eye Hospital, Madurai will be broadcasted live to the classes at various centres, thereby providing a virtual and real time classroom atmosphere to the students.

### INTERNAL CAPACITY BUILDING

As part of Internal Capacity Building, staff from clinical and administrative divisions participated in various international conferences and training programmes.

Ms. G.K.Veni, Administrator, LAICO visited USA from July 15 - August 5 to visit various universities to get an exposure to administration with special focus on planning, marketing, organising, and evaluating the training programmes and CME programmes offered at Aravind. She visited the University of Michigan, Chelsea Community Hospital, the University of Berkeley, Stanford University, the Programme office of AAO, the Google Campus and the Seva Office. She attended a week-long course on "Strategic Perspectives in Non profit Management" at Harvard Business School.

Dr. Maneksha, Aravind-Tirunelveli went to the US to observe the latest advancements in orbit and oculoplasty from September 3-30, 2007. He visited

## CANDIDATES TRAINED 2007 - 2008

Courses offered	Duration	Trained
-----------------	----------	---------

### OPHTHALMOLOGISTS

#### POSTGRADUATE TRAINING IN OPTHALMOLOGY

Diploma in Ophthalmology (DO)	2 years	8
MS in Ophthalmology (MS)	3 years	6
Diplomate of the National Board (Dip.NB)	3 years	16
Post DO DNB	2 years	21

#### LONG TERM - OPTHALMOLOGY FELLOWSHIP

Retina - Vitreous	2 years	13
Cornea	18 months	8
Paediatric Ophthalmology and Strabismus	18 months	6
Glaucoma	2 years	11
Ant. Segment/IOL Microsurgery	2 years	10
Uvea	18 months	1
Orbit and Oculoplasty	18 months	5
General Ophthalmology	18 months	2
Comprehensive General Ophthalmology	2 years	3

#### SHORT TERM - OPTHALMOLOGY FELLOWSHIP

(for overseas students only)

Orbit and Oculoplasty	6 months	1
Cornea	6 months	1

#### SHORT TERM - CLINICAL COURSES

IOL Microsurgery	1 month	79
Manual Small Incision Cataract Surgery	1 month	80
Phacoemulsification	1 month	56
Lasers in Diabetic Retinopathy Management	2 months	52
Diagnosis and Management of Glaucoma	8 weeks	45
Neuro Ophthalmology	3 months	1
Training in Low vision	1 month	6
Orientation to Paediatric Ocular Anesthesia for Anesthetist	1 month	1
Certificate Course in Fundus Fluorescein Angiography and Ultrasonography	2 months	1

### MID LEVEL OPHTHALMIC PERSONNEL

#### LONG TERM COURSES

PG Diploma in Ophthalmic Assistance	2 years	38
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#### SHORT TERM COURSES

Optical Dispensing	3 months	13
OT Techniques	2 months	7
Refraction Techniques	2 months	4
Orthoptist	6 months	3
Paediatric Nurses	3 months	8
Paediatric Counsellors	2 months	3
Ocularist Training	3 weeks	6



*Ms. G.K.Veni with other course participants at Harvard Business School*

Pacific Eye Associates (PEA), California Pacific Medical Centre (CPMC), University of California San Francisco (UCSF), Mass Eye and Ear Infirmary (MEEI) and Boston Eye Centre.

Dr. Veena was in the US for three weeks from October 15, 2007 to observe the work at a few Paediatric Ophthalmology departments in reputed institutions. She visited Cornell Medical School, New York, Cornell Medical School, New York University, Ellsworth Ophthalmic Oncology Center, New York, Wilmer Eye Hospital, Baltimore, Wills Eye Institute, Philadelphia to update her clinical knowledge, to learn new ways of methodical clinical examination, finer details in prescribing glasses for children, to diagnose and treat cyclovertical squints and hemihangback technique, and practical tips in treating muscle palsies etc.

*Dr. Veena, Dr. Viji Rengarajan, Ms. Sasipriya, Dr. Ravindran and Dr. Maneksha at the AAO at New Orleans*

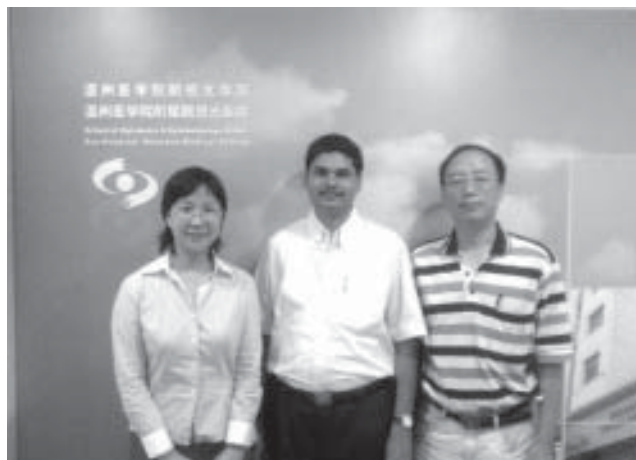


Ms. Sasipriya, Faculty, LAICO visited Seva Foundation, Berkeley, USA to take part in Global staff meetings from October 29 to November 1 and made a presentation about Aravind-Seva activities and took part in the discussions. She participated in the Seva Board Meeting and the Seva SIGHT Programme Advisory Group Meeting. She also visited the Consulting Division of Kaiser Permanente and Sutter Health, San Francisco to understand the consulting process and approaches adopted at these firms.

Dr. Viji Rangarajan went to the US to learn the latest treatment in oculoplasty patient care and surgery. She visited University of California and California Pacific Medical Centre in San Francisco, Memorial Sloan Kettering Cancer Centre and New York Eye and Ear Infirmary in New York and Wilmer Eye Institute at Johns Hopkins. During this visit she learnt both functional and cosmetic oculoplastic surgeries and the medical and surgical management of Retinoblastoma.

Dr. Ilango, Medical Consultant visited Wenzhou school of optometry & Research Centre and Eye Hospital in July 2007. In Wenzhou he studied the optometry programmes, and visited the research labs, and teaching facilities.

*Dr. Ilango at the Wenzhou School of Optometry & Research Centre at Wenzhou*



## **MAJOR CONTINUING MEDICAL EDUCATION PROGRAMMES ORGANISED AT ARAVIND**

### **CME on Current Practices in Glaucoma**

Aravind-Tirunelveli, July 21-22

A total of 92 participants from all over India attended the CME Programme. The guest faculty were Dr. Arun Narayanasamy, Sankara Nethralaya, Chennai, Dr. Devendra Sood, Glaucoma Imaging Centre, New Delhi, Dr. G.R. Reddy, Venkateshwara Nethralaya, Andhra Pradesh, Dr. Murali Ariga, Sundaram Medical Foundation, Chennai, Dr. Vinay Nangia, Suraj Eye Institute, Nagpur, and Dr. Velayutham, Regional Institute of Ophthalmology, Chennai.

### **International Ocular Surface Society Regional Meeting (IOSS)**

Aravind-Puducherry, October 6-7, 2007

A total of 66 members from all over India participated in the meeting. The meeting focussed on the two complex diseases - Dry Eye and Pterygium. Eminent International faculty Dr. Scheffer C G Tseng, Ocular Surface Center, Miami, Florida and Dr. V.K. Raju, Clinical Professor of Ophthalmology, West Virginia University, USA gave a lot of new insights into the management of the eye conditions. Eminent Cornea specialists from all over the country and Aravind Cornea consultants presented interesting ocular surface disease cases and had interactive case discussions.

*At the 'International Ocular Surface Society Regional Meeting' at Puducherry*



## 18th Update in Ophthalmology

Aravind-Coimbatore, October 21- 26, 2007

A total of 41 students representing various colleges from Tamilnadu, Bangalore, Kerala, Andhra Pradesh, Maharashtra, New Delhi, Kolkata, and Rajasthan participated actively in this academic Programme.

## Training Course on Molecular Genetic Methods in Diabetic Retinopathy

LAICO, February 4-14

Postgraduate students, PhD scholars and faculty members of various colleges and Universities participated in the above TIFAC-CORE course. Dr. VR. Muthukkaruppan, Director, Research welcomed the participants. Dr. P. Sundaresan, Organising Secretary of the training course, explained in detail about the hands on training Programme and the AMRF research scholars taught the molecular techniques to the participants.

Guest faculty were Dr. Dorothea Nitsch, London School of Hygiene & Tropical Medicine, London; Dr. Daniel Otzen, Aarhus University, Denmark; Dr.G.Kumaramanickavel, Sankara Nethralaya, Chennai; Dr. Radha Venkatesan, Madras Diabetes Research Foundation, Chennai; Dr. Karutha Pandian, Alagappa University, Karaikudi; Dr. K.Dharmalingam, Madurai Kamaraj University, Madurai; Dr. S.Krishnasamy, Madurai Kamaraj University, Madurai.

*Dr. VR. Muthukkaruppan with the participants of the training course on molecular genetic methods*



## MAJOR CONFERENCES ATTENDED ELSEWHERE

### American Society of Cataract and Refractive Surgeons

San Diego, April 28 - May 2, 2007

DR. HARIPRIYA ARAVIND

#### I. Instruction Course

- Application of Torsional Phaco in the Management of Challenging Cataracts

#### II. Scientific Paper

- Iris-Sutured Posterior Chamber IOLs: Indications, Technique, Complications, and Outcomes

- Surgical Management of Ectopia Lentis

#### III. Video

- Bridging the Gap

### Telemedicine users Meet

Organised by Indian Space Research Organization (ISRO) at Space Applications Centre, Ahmadabad, May 3-4, 2007

Dr. R. Kim participated.

### Essilor Optical Industry Convention

Bangkok, Thailand, May 13-17

Er. G. Srinivasan, Dr. Kalpana Mrs. R. Saradha Devi, Sr. Sivasankari and Sr. Prema from Lakshmi opticals Aravind-Madurai attended the convention.

They learnt about modern trend in optical business and also about new types of lens that will soon be introduced in the market.

### III Pacific Health Summit

National Bureau of Asia Research, Washington, USA, June 12-14, 2007

Dr. P. Namperumalsamy attended the Summit at the invitation of the National Bureau of Asia Research.

*Er.G.Srinivasan, Ms. Saradha Devi, Sr. Prema, Sr. Sivasankari and Dr. Kalpana at the Essilor Optical Industry Convention in Bangkok*



### Diabetes Summit

World Diabetes Foundation, Nairobi, Kenya,  
June 29-30, 2007

DR. R. KIM

- *Learning from eye care in India*

### Intraocular Implant & Refractive Society of India 2007

Chennai, July 14, 2007

Dr. P. Namperumalsamy was felicitated by the Society for the Award of Padmashree. He chaired the session on “Raising the bar in cataract and refractive surgery”.

### World Glaucoma Congress Conference

Singapore Convention Centre, July 17-21, 2007

DR. P. SATHYAN

- *Driving in glaucoma*

Guest lecture at Alexandra Hospital, Singapore,  
July 19, 2007

- *Current concepts and management of Glaucoma*

Dr. P. Venkatasash participated in this meeting.

### International Society of Clinical Electrophysiology Vision, XLV Annual Symposium

Hyderabad, August 25-29, 2007

Dr. Shashikant Shetty, Dr. Naresh Babu, Dr. Jay Kallinath participated in the ISCEV XLV Annual Symposium.

### XVI Annual Conference of Vitreoretinal Society of India

Mussoorie, September 20-22, 2007

DR. KIM

- *Screening for diabetic retinopathy in a diabetic clinic*

DR. DHANANJAY SHUKLA

- *Importance of serous retinal detachment in diabetic macular edema*

DR. UMESH CHANDRA BEHERE

- *Duplication of fovea in human eye*

DR. ANAND RAJENDRAN

- *Sequential retinal pigment epithelium rips with regression of a choroidal neovascular membranes treated with intravitreal anibizumab (Lucentis) - Case Presentation*

Paper Presented

- *Isolated intravitreal bevacizumab therapy for choroidal neovascular membranes of multiple aetiologies – an analysis of 152 cases.*

### Asia Pacific Association of Cataract and Refractive Surgeons

Hanoi, Vietnam, September 27-29, 2007

DR. HARIPRIYA ARAVIND

- *Hard Lens Eradication*
- *Teaching Torsional Phaco*
- *Live Surgery*

### 16th Annual Congress of the College of Ophthalmologists

Sri Lanka, October 24-27, 2007

DR. P. SATHYAN

- *Secondary Glaucoma and Current concepts in Glaucoma*

### National Workshop - Infoquest-2007

Manipal University, Manipal, October 27, 2007

Ms. Lakshmi, HR Manager, Aravind-Tirunelveli participated as the Guest Speaker for a session

- *Human Resource issues in healthcare*

Dr. Sathyan and Dr. P. Venkatasash at Alexandra Hospital, Singapore



Dr. Kim at the National Conference of Telemedicine Society of India



### III National Conference - Telemedicine Society of India

Chennai, November 2-3, 2007

Dr. Kim chaired the session on

- *Clinical Applications of Telemedicine*
- *Tele-ophthalmology*
- *Tele-diagnosis of diabetic retinopathy*

### NHG Annual Scientific Congress

Singapore, November 10-11, 2007

DR. S. ARAVIND was invited as the Guest Speaker

- *High Quality, Low Cost Health Care – Lessons from the largest eye care system in the world*
- *Cataract surgery – State of the art*
- *Phacoemulsification in hard cataract*
- *Phacoemulsification in Subluxated cataract*
- *New technology in phacoemulsification (ozil)*

### Joint Meeting of the Oculoplastics Association of India & Asia Pacific Society of Ophthalmic Plastic and Reconstructive Surgery

Hyderabad, December- 14-16, 2007

DR. USHA KIM

- *Management of Congenital Ptosis - Instruction Course*  
Poster Presentations

- *A total of six posters were presented by Aravind Orbit Ophthalmologists. Of these the following won awards.*

DR. SHIVAYOGI KUSAGUR, DR. USHA KIM AND

DR. HADI M. KHAZAEI

- *Dacryocystorhinostomy: A comparison of External Versus Transcanalicular Endolaser.*

Awarded 'Best Poster Award' in Lacrimal Category.

DR. USHA KIM, DR. VIPUL ARORA

- *Presented Clinical photographs of Delleman Syndrome, Double Globe? (CT scan Photograph), Metastatic Lesion of Orbit and Skull, Orbital Dermoid Cyst.*

Adjudged as 'Best Photograph in Imaging Photography' Category.

DR. MANEKSHA VELU, DR. USHA KIM, DR. HADI M KHAZAEI, AND DR. VIPUL ARORA

- *Ocular Adnexal Lymphoma: A Clinico Histopathological Analysis in a Tertiary Eye Care Centre.*

Awarded 'Best Poster Award in Orbit' Category.

### Nirma International Conference on Management

Nirma University, Ahmedabad, January 9-11, 2008

MS. LAKSHMI. R, HR MANAGER, ARAVIND-TIRUNELVELI

- *Employer Branding - a key for Marketing Hospitals*

The paper has been published as a book also.

### VIII International Advanced Vitreo-Retinal Surgery Course

Kuala Lumpur, Malaysia, January 11-13, 2008

DR. ANAND RAJENDRAN WAS INVITED AS A GUEST FACULTY

- *The Role of Intravitreal anti-VEGF agents in Proliferative Diabetic Retinopathy*

- *A typical Manifestation of Diabetic Retinopathy.*

### XI Sumatera Ophthalmologists Meeting

Polonia Hotel, Medan, Indonesia, January 19-20, 2008

DR. VENKATESH

- *Course Instructor for Manual Small Incision Cataract Surgery.*

### All India Society for Human and Animal Mycotic infection

Mumbai, February 6, 2008

DR. LALITHA PRAJNA

- *"Antifungal susceptibility of Natamycin against Fusarium and aspergillus from corneal ulcers".*

Dr. Vipul Arora receiving the Best Poster Award in Orbit Category



Dr. Usha Kim at the Management of Congenital Ptosis - Instruction Course



## PUBLICATIONS

In the year ending March 2008, Aravind published several manuals and text books.

With support from Seva Foundation, five manuals on Ophthalmic Assistant Training and three on Training in Eye Care Support Services along with DVDs were published.

### OPHTHALMIC ASSISTANT TRAINING SERIES (OATS)

1. *Introduction to Basics of Ophthalmic Assisting*
2. *Handbook for Clinical Ophthalmic Assistants (includes two DVDs)*
3. *Handbook for Surgical Ophthalmic Assistants (Operation room services)*
4. *Role of Counselling in Eye Care Services – A practical guide*
5. *A Textbook on Optics and Refraction*

### TRAINING IN EYE CARE SUPPORT SERVICES SERIES (TECSSS)

1. *Housekeeping in Eye Care Services - A practical guide*
2. *Medical Records Management in Eye Care Services - A practical guide*
3. *Optical Sales and Dispensing –A practical guide*

With support from the ORBIS International, and in conjunction with the Government of India, the Aravind Paediatric Ophthalmology Service published the following books.

### PAEDIATRIC OPHTHALMOLOGY – A PRACTITIONER’S GUIDE

- Dr. P. Vijayalakshmi

### ORTHOPTICS SIMPLIFIED

- Dr. P. Vijayalakshmi, Ms. S. Rama, Dr. R. Muralidhar

Apart from the above, Aravind also published the fourth Edition of the Neuro-Ophthalmology text book.

*Dr. Mahesh Kumar with Dr. Pararajasegaram and Dr. P. Namperumalsamy at the launch of the text book on Neuro-Ophthalmology*



### NEURO – OPHTHALMOLOGY-FOURTH EDITION

- Dr. Mahesh Kumar

With support from Lions Clubs International Foundation (LCIF), Aravind published ‘A Model for Managing Diabetic Retinopathy’ under Lions Aravind Diabetic Retinopathy project.

### ARAVIND’S ATLAS OF FUNGAL CORNEAL ULCERS CLINICAL FEATURES AND LABORATORY IDENTIFICATION METHODS

CHENNAI: JAYPEE PUBLISHERS, 2008. 145

- Lalitha Prajna; Vijayakumar; Venkatesh Prajna; Srinivasan, M

### MASTERING PHACOEMULSIFICATION IN DIFFICULT SITUATIONS WITH DVD, NEW DELHI: JAYPEE, 2008. 269

- Dr. Haripriya Aravind contributed several articles to the this book

## ARTICLES PUBLISHED IN PEER REVIEWED JOURNALS

### JOURNAL OF CATARACT & REFRACTIVE SURGERY

VOL: 33 (4) 2007 APR. P.741-742

JETHANI, JITENDRA

- *Pigmented Free-Floating Retrolental Space Cyst*

VOL: 33 (6) 2007 JUN. P. 1104–1105

SATHYAN P; SINGH G; EONG KGA; RAMAN GV AND PRASHANTH S

- *Suprachoroidal haemorrhage following removal of releasable suture after combined phacoemulsification–trabeculectomy*

### JOURNAL OF OPHTHALMIC EPIDEMIOLOGY

VOL: 14 (2) 2007 MAR.-APR. P.61-69

BHARATHI, JAYAHAR; RAMAKRISHNAN, R; MEENAKSHI, R; PADMAVATHY, S; SHIVAKUMAR, C AND SRINIVASAN, M

- *Microbial Keratitis in South India: influence of Risk Factors, Climate, and Geographical Variation*

### JOURNAL OF OPHTHALMIC PHOTOGRAPHY

VOL: 29(1) 2007 Spring P.32

REVATHY RAJARAMAN; THOMSON, S

- *Multiple Foreign Body Injury*

### BRITISH JOURNAL OF OPHTHALMOLOGY

VOL: 91 (3) 2007 MAR. P.279-281

VENKATESH, RENGARAJ; TAN, COLIN SH; THIRUMALAI KUMAR, THANGAVEL AND RAVINDRAN, RAVILLA

- *Safety and Efficacy of Manual Small Incision Cataract Surgery for Phacolytic Glaucoma*

VOL: 91 (5) 2007 MAY P.570-575  
SRINIVASAN, MUTHAIAH; ZEGANS, MICHAEL E; ZELEFSKY,  
JOSEPH R; KUNDU, ARUNAVA; LIETMAN, THOMAS; WHITCHER,  
JOHN P AND CUNNINGHAM JR., EMMETT T  
- *Clinical Characteristics of Mooren's Ulcer in South India*

VOL: 91(11) 2007 NOV. P.1467-1470  
P VIJAYALAKSHMI; T AMALA RAJASUNDARI; NOELA MARIE  
PRASAD; S KARTHIK PRAKASH; KALPANA NARENDRAN;  
MEENAKSHI RAVINDRAN; V R MUTHUKARUPPAN; PRAJNA  
LALITHA AND DAVID W G BROWN  
- *Prevalence of eye signs in congenital rubella syndrome  
in South India: A role for population screening (AEH)*

VOL: 92(1) 2008 JAN. P.179-181  
J R ZELEFSKY; C J TAYLOR; M SRINIVASAN; S PEACOCK; R S  
GOODMAN; T KEY; P G WATSON AND E T CUNNINGHAM  
- *HLA-DR17 and Mooren's ulcer in South India*

VOL: 91(8) 2007 AUG. P.1037  
SINGH, D; NARENDRAN, R; SARAVANAN, V R AND  
NARENDRAN, V  
- *Pigmented free-Floating Iris Cysts*

#### INTERNATIONAL OPHTHALMOLOGY CLINICS

VOL: 47(3) 2007 Summer P.17-25  
MADAN P. UPADHYAY; MUTHAIAH SRINIVASAN; JOHN P.  
WHITCHER  
- *Microbial Keratitis in the Developing World: Does  
Prevention Work?*

VOL: 47(3) 2007 Summer P.27-43  
DHANANJAY SHUKLA; SIVAKUMAR R. RATHINAM AND  
EMMETT T. CUNNINGHAM JR.  
- *Contribution of HIV/AIDS to Global Blindness.*

VOL: 47(3) 2007 Summer P.45-62  
CAROLYN T. BRAMANTE; ELIZABETH A. TALBOT; SIVAKUMAR  
R. RATHINAM; ROSALIND STEVENS AND MICHAEL E. ZEGANS  
- *Diagnosis of Ocular Tuberculosis: A Role for New  
Testing Modalities?*

#### AMERICAN JOURNAL OF OPHTHALMOLOGY

VOL: 144(3) 2007 SEP. P.419-423  
DHANANJAY SHUKLA; ANAND RAJENDRAN; DANIEL GIBBS;  
BALASUBBU SUGANTHALAKSHMI; KANG ZHANG AND PERIASAMY  
SUNDARESAN  
- *Unusual Manifestations of X-Linked Retinoschisis:  
Clinical Profile and Diagnostic Evaluation*

VOL: 144(3) 2007 SEP. P.453-454  
DHANANJAY SHUKLA; NAGASUBRAMANIAN VIDHYA; NOELA M.  
PRASAD; RAJENDRAN MAHALAKSHMI; CHANDRAMOHAN  
KOLLURU AND RAMASWAMI KRISHNADAS  
- *Evaluation of Patient Age as a Risk factor for  
Intraocular Pressure Elevation after Intravitreal  
Triamcinolone*

VOL: 144 (1) 2007 JUL. P.144-146  
RAJARAMAN, REVATHY; LALITHA, PRAJNA; RAGHAVAN, ANITA;  
PALANISAMY, MANIKANDAN; NAMPERUMALSAMY, P AND  
PRAJNA, VENKATESH  
- *Traumatic Lenticular Abscess: Clinical Description  
and outcome*

VOL: 144 (4) 2007 OCT. P.552-556  
LALITHA, P; RATHINAM, S; BANUSHREE, K; MAHESHKUMAR, S;  
VIJAYAKUMAR, R AND SATHE, P  
- *Ocular Involvement Associated with an Epidemic  
Outbreak of Chikungunya Virus Infection*

#### MEDICAL MYCOLOGY

2007 SEP 18 P.1-6 [Epub ahead of print]  
MANIKANDAN P; VISMER HF; KREDICS L; DOCZI I; MARASAS  
WF; BHASKAR M; ANITA R; REVATHI R AND NARENDRAN V  
- *Corneal ulcer due to Neocosmospora vasinfecta in an  
immunocompetent patient*

#### JOURNAL OF CLINICAL MICROBIOLOGY

VOL: 45(10) 2007 OCT. P.3464-3467  
KREDICS L; VARGA J; KOCSUBE S; DOCZI I; SAMSON RA;  
RAJARAMAN R; NARENDRAN V; BHASKAR M; VAGVOLGYI C  
AND MANIKANDAN P  
- *Case of keratitis caused by Aspergillus tamaraii*

#### INDIAN JOURNAL OF OPHTHALMOLOGY

VOL: 55(1) 2007 JAN. P.75-76  
SHAH, PARAG K; NARENDRAN, V; TAWANSY, KHALED A;  
RAGHURAM, A AND NARENDRAN, KALPANA  
- *Intravitreal Bevacizumab (Avastin) for Post Laser  
Anterior Segment Ischemia in Aggressive Posterior  
Retinopathy of Prematurity*

VOL: 55(1) 2007 JAN. P.5-6  
SRINIVASAN, M  
- *Infective Keratitis: a challenge to Indian ophthalmologists*

VOL: 55(1) 2007 JAN. P.27-31  
VASANTHI, MANI; PRAJNA, NAMPERUMALSAMY VENKATESH;  
LALITHA, PRAJNA; MAHADEVAN, KANNAN AND  
MUTHUKARUPPAN, VEERAPPAN  
- *A Pilot Study on the Infiltrating Cells and Cytokine  
Levels in the Tear of Fungal Keratitis Patients*

VOL: 55(1) 2007 JAN. P.37-42  
BHARATHI, JAYAHAR M; SRINIVASAN, M; RAMAKRISHNAN, R;  
MEENAKSHI, R; PADMAVATHY, S AND LALITHA, PRAJNA N  
- *A Study of the Spectrum of Acanthamoeba Keratitis: a  
three-year study at a tertiary eye care referral center  
in South India*

VOL: 55(1) 2007 JAN. P.64-67  
BHARATHI, M JAYAHAR; SRINIVASAN, M; RAMAKRISHNAN, R;  
MEENAKSHI, R; PADMAVATHY, S AND LALITHA, PRAJNA N  
- *Ulcerative Keratitis Associated with Contact Lens Wear*

VOL: 55(2) 2007 MAR. P.113-116  
VASUMATHY, VEDANTHAM; JITHENDRA, JETHANI AND  
PERUMALSAMY, VIJAYALAKSHMI  
- *Electroretinographic assessment and diagnostic  
reappraisal of children with visual dysfunction: a  
prospective study*

VOL: 55(2) 2007 MAR. P.139-141  
JITENDRA, JETHANI; SUCHETA, PARIJA S; SHASHIKANT, SHETTY AND VIJAYALAKSHMI, P  
- *Atypical association of Duane retraction syndrome and Bardet Biedl syndrome*

VOL: 55 (2) 2007 MAR. P.142-143  
JITENDRA, JETHANI; ANURAG, MISHRA; SHASHIKANT, SHETTY S AND VIJAYALAKSHMI, P  
- *Weill-Marchesani syndrome associated with retinitis pigmentosa*

VOL: 55(2) 2007 MAR. P.148-149  
VASUMATHY, VEDANTHAM; KIM, RAMASAMY  
- *Pigmented epiretinal membranes caused by RPE migration: OCT-based observational case reports*

VOL: 55(2) 2007 MAR. P.150-151  
VASUMATHY, VEDANTHAM V; JITENDRA, JETHANI; ANIL, AGARWAL AND PERUMALSAMY, VIJAYALAKSHMI  
- *Retinitis pigmentosa associated with blepharophimosis, blue dot cataract and primary inferior oblique overaction: A new syndrome complex?*

VOL: 55(3) 2007 MAY-JUN. P.173-184  
RATHINAM, S R; NAMPERUMALSAMY, P  
- *Global Variations and Pattern Changes to Epidemiology of Uveitis*

VOL: 55(3) 2007 MAY-JUN. P.221-222  
VEDANTHAM, VASUMATHY; RAJAGOPAL, JYOTHSNA  
- *Double Combined Pigment Epithelial and Retinal Hamartomas In A Single Eye: An Optical Coherence Tomographic Study*

VOL: 55(3) 2007 MAY-JUN. P.228-229  
PEREIRA, NOLETTE; DEV, ANAND AND ARAVIND, HARIPRIYA  
- *Herniation of the Anterior Lens Capsule*

VOL: 55(4) 2007 JUL.-AUG. P.298-299  
SHUKLA, DHANANJAY; RAMASAMY, KIM  
- *Vitreotomy for Circumscribed Choroidal Hemangioma with Exudative Retinal Detachment Refractory to Transpupillary Thermotherapy*

VOL: 55(4) 2007 JUL.-AUG. P.319-320  
SHAH, PARAG K; NARENDRAN, V  
- *Intravitreal Bevacizumab in Aggressive Posterior Retinopathy of Prematurity*

VOL: 55(5) 2007 SEP. P.329-330  
VEDANTHAM, VASUMATHY  
- *Retinopathy of prematurity screening in the Indian population: It's time to set our own guidelines*

VOL: 55(5) 2007 SEP. P.395  
VENKATESH, RENGARAJ; VEENA, KANNUSAMY; GUPTA, SANTHOSH AND RAVINDRAN, RAVILLA  
- *Intraoperative Floppy Iris Syndrome Associated with Terazosin*

VOL: 55(5) 2007 SEP. P.399-400  
TOPRANI, KETKI; SHETTY, SHASHIKANT AND VIJAYALAKSHMI, P  
- *Congenital or Acquired Horner's?*

VOL: 55(6) 2007 NOV. - DEC. P.413-415  
KIM, RAMASAMY  
- *Introduction, Mechanism of Action and Rationale for Anti-vascular Endothelial Growth Factor drugs in Age-related Macular Degeneration*

VOL: 55(6) 2007 NOV. P.427-430  
SHUKLA, DHANANJAY ; NAMPERUMALSAMY, PERUMALSAMY; GOLDBAUM, MAURO AND CUNNINGHAM JR., EMMETT T  
- *Pegaptanib Sodium for Ocular Vascular Disease*

VOL: 55(6) 2007 NOV. P.460-462  
RAGHURAM, A; SARAVANAN, V R AND NARENDRAN, V  
- *Intracameral Injection of Bevacizumab (Avastin) To Treat Anterior Chamber Neovascular Membrane in a Painful Blind Eye*

## JOURNAL OF ARCH OPHTHALMOL

VOL: 125(10) 2007 OCT. P.1381-1386  
APOORVA MITTAL; SAURABH MITTAL; M. JAYAHAR BHARATI; RENGAPPA RAMAKRISHNAN; SANKARLINGAM SARAVANAN AND PADMAKAR S. SATHE  
- *Optic Neuritis Associated With Chikungunya Virus Infection in South India*

VOL: 125(10) 2007 OCT. P.1428-1430  
UMESH C. BEHERA; DHANANJAY SHUKLA AND RAMASAMY KIM  
- *Pseudoduplication of Fovea in a Human Eye*

VOL: 125(6) 2007 JUN. P.789-793  
LALITHA, PRAJNA; SHAPIRO, BRETT L; SRINIVASAN, MUTHAIAH; PRAJNA, NAMPERUMALSAMY VENKATESH; ACHARYA, NISHA R; FOTHER GILL, ANNETTE W; RUIZ, JAZMIN; CHIDAMBARAM, JAYA D; MAXEY, KATHRYN J; HONG, KEVIN C; MCLEOD, STEPHEN D AND LIETMAN, THOMAS M  
- *Antimicrobial Susceptibility of Fusarium, Aspergillus, and other Filamentous Fungi Isolated from Keratitis*

VOL: 125(9) 2007 SEP. P.1240  
PARTHASARATHI, S; MYINK, K; SINGH, G; MON, S; RAMAN, GV AND DHILLON, B  
- *A Ring on the Retina*

## JOURNAL OF GENETICS

VOL: 86(2) 2007 AUG. P.165-168  
NALLATHAMBI, JEYABALAN; NEETHIRAJAN, GURUSWAMY; USHA, KIM; JITENRA, JETHANI; BAERE, ELFRIDE DE AND SUNDARESAN, PERIYASAMY  
- *FOXL2 mutations in Indian Families with Blepharophimosis-ptosis-epicanthus In versus Syndrome*

## JOURNAL OF AAPOS

VOL: 11(5) 2007 OCT. P.495-496  
JITENDRA JETHANI; P. VIJAYALAKSHMI AND MAHESH KUMAR  
- *Atypical ophthalmological presentation of neurocysticercosis in two children*

VOL: 12(2) 2008 APR. P.163-5 (Epub 2007 DEC. 26)  
SUNDARESH K; JETHANI J; VIJAYALAKSHMI P  
- *Optical iridectomy in children with corneal opacities*

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VOL: 53(4) 2007 OCT. P.236-240

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- *Care of Instruments and Equipment: a success story*

VOL: 20(64) 2007 DEC. P.66-67

- THULASIRAJ, R D  
- *Advocacy to Improve the Delivery of Eye Care*

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- *Economic Analysis of Corneal Ulcers in South India*

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- ROHINI, GOMATHINAYAGAM; MURUGESWARI, PONNALAGU; PRAJNA, NAMPERUMALSAMY VENKATESH; LALITHA, PRAJNA AND MUTHUKKARUPPAN, VEERAPPAN  
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*At the Workshop to develop National Eye  
Care Programme for Rwanda*

# LIONS ARAVIND INSTITUTE OF COMMUNITY OPHTHALMOLOGY

2007-2008

**F**ounded with the mission of contributing to the prevention and control of global blindness through teaching, training, consultancy, advocacy and research in eye care delivery, LAICO has accomplished a great deal towards fulfilling this mission in the last fifteen years.

LAICO's work makes it possible for Aravind to transfer the best of its expertise and experience to an ever-increasing number of eye care institutions across India and the rest of the developing world. Its global impact on the quality and efficiency of eye care delivery is steadily growing.

## CONSULTANCY AND CAPACITY BUILDING SERVICES

A major part of LAICO's activities centres around 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 international voluntary organisations such as the Lions Clubs International Foundation, Sightsavers International, Christian Blind Mission, International Eye Foundation, Right to Sight, Seva Foundation, ORBIS International, Lavelle Fund for the Blind and the World Health Organisation.

Consultancy is carried out in phases - Needs Assessment Visits, Vision Building Workshops,

Follow up Visits and Monitoring followed by a final situation analysis visit. Until March 2008, LAICO has provided this service to 231 eye hospitals spread across the country and in other developing nations.

## NEEDS ASSESSMENT VISITS

- Sadguru Netra Chikitsalaya, Chitrakoot, Madhya Pradesh (Specifically to strengthen paediatric eye care services)
- Lions Netralaya, Sholapur, Maharashtra
- Raj Eye Hospital and Research Centre, Gorakhpur, Uttar Pradesh
- Late Dr. Veena Chowdhary Lions Eye Hospital, Shahabad (M), Kurukshetra, Haryana
- Regional Institute of Ophthalmology, Kolkata, West Bengal
- Berhan National Referral Eye Hospital in Asmara, Eritrea
- Yaounde Gynaeco-Obstetric and Paediatric Hospital, Yaounde, Cameroon
- Central Hospital, Yaounde, Cameroon
- Central University Hospital, Yaounde (CHU), Cameroon
- Presbyterian Health Services Eye Clinic, Bafussam, Cameroon
- Mbingo Baptist Hospital, Bamenda, Cameroon
- Eye Department at Provincial Hospital, Bamenda, Cameroon
- Garbet Tehadiso Mahber, Butajira, Ethiopia
- Fitsum Birhan Eye Centre, Mekelle, Ethiopia



*Needs Assessment visit to Cameroon*

- Quiha Zonal Hospital, Mekelle, Ethiopia,
- University Teaching Hospital, Kigali (CHUK), Rwanda

**VISION BUILDING AND STRATEGIC PLANNING WORKSHOPS**

April 9-13, 2007

- L. M. Patel Rotary Eye Hospital, Malad, Mumbai.
- Lions Club of Madras and Velacherry Eye Hospital, Chennai

June 12-13, 2007

Sudarshan Netralaya, Amreli

This workshop was held at Aravind-Coimbatore

September 24-26, 2007

- Grameen GC Eye Hospital, Bogra, Bangladesh

September 24-29, 2007

- Late Dr. Veena Chowdhary Lions Eye Hospital, Shahabad (M), Kurukshetra, Haryana
- Khandwa Lions Eye Hospital, Madhya Pradesh
- Lions Eye Hospital, Parasia, Madhya Pradesh

*Needs Assessment Visit to Ethiopia at Garbet Tehadiso Mahber, Butajira, Ethiopia*



- Lions Netralaya, Sholapur, Maharashtra,
- Raj Eye Hospital and Research Centre, Gorakhpur, Uttar Pradesh

November 10-12, 2007

- Shalina Eye Hospital, Lubumbashi, Congo
- This workshop was held at Aravind-Puducherry

January 21-26, 2008

- State Hospital, OGUN State, Nigeria
- Nyangabgwe Referral Hospital, Francistown, Botswana

February 4-9, 2008

- Nkhoma Eye Hospital, Nkhoma, Malawi

**FOLLOW UP VISITS**

- Charmakki Narayan Shetty Memorial Lions Eye Hospital, Kota, Mangalore, Karnataka
- To Sight First Hospital, Hendala and Lions Gift of Sight Hospital, Panadura
- Sree Janaki Eye Hospital, Janakpur, Nepal

**OTHER CONSULTANCY VISITS**

*Disha Eye Hospital and Research Centre Pvt, Ltd., Kolkata, November 26 - December 2*

An Aravind team consisting of Dr. R.D. Ravindran, Ms. Preethi Pradhan, Mr. Suresh Kumar, and Ms. Deepa Krishnan visited Disha Eye Hospital to address their specific request to formalise and standardise the current administrative system to make Disha's growth much easier and simpler. As a part of this assignment an in-depth study of the organisation was made regarding their strength, weakness, opportunities and threats. They also conducted a one day workshop where there was a debriefing of the analysis and a few recommendations to improve in administrative areas.

*Vision Building Workshop for Grameen GC Eye Hospital, Bogra*





*Dr. Sathyan and Mr. Keerthi Pradhan during the Consultancy visit to Vietnam*

**Melaghar Vision Centre and Indira Gandhi Memorial Govt. Hospital, Agartala, Tripura, April 1-8, 2007**

Mr. Selvakumar, faculty, Aravind School of Optometry was invited to provide technical assistance to set up primary eye care units including refraction chamber and to train the ophthalmic assistants at rural government vision centre, Melaghar. He and Mr. Prem Anand, Senior Manager, IL&FS set up the digital ‘Ophthalmic teleconsultancy unit’ using Aravind’s ‘Eyestalk’ at Agartala.

**Community Eye Care Programme, Vietnam, April 9-15, 2007**

Mr. Keerti Pradhan, Senior Faculty, LAICO and Dr. P. Sathyan Aravind-Coimbatore visited three provinces in Vietnam for a mid term evaluation of a community eye care programme funded by Atlantic Philanthropies and managed by Fred Hollows Foundation-Vietnam.

*Dr. Naresh Babu with staff at Peking University Eye Centre*



**Peking University Eye Centre (PUEC) – Eli Lilly Diabetic Eye Disease Center (ELDEDC), Beijing, China, June 20-26,2007**

With support from the Eli Lilly and Company Foundation Inc. and International Council of Ophthalmology (ICO), an Aravind team consisting of Dr. K. Naresh Babu, Mr. V. Vijayakumar, and Mr. S.P. Venkatesh visited Peking University Eye Center to provide guidance and support to ELDEDC, in developing a detailed strategic plan for setting up of an effective diabetic retinopathy service and also to assist in designing the training programmes for the development of various cadres of human resources.

**Kilimanjaro Centre for Community Ophthalmology, Tanzania and Al Noor Foundation, Egypt, August 1-13, 2007**

Mr. D. Nagarajan, Consultant, Dr. Sandra Dratler - SEVA Foundation and Mr. Suresh Kumar - LAICO Faculty visited the Kilimanjaro Centre for Community Ophthalmology (Moshi, Tanzania) and Al Noor Foundation (Cairo, Egypt) as part of a visioning process to the concerned Centre of Community Ophthalmology (CCO). Their purpose was to start a process with each organisation to establish a vision for their CCO development with focus on 2010.

**Kandze People’s Hospital, (Kham Eye Centre), Dartsedo, Eastern Tibet, China, August 14-19**

Aravind team consisting of Dr. R. D. Ravindran, Ms. Preethi Pradhan and Ms. Sasipriya KM along with Mr. Keerti Pradhan, visited Kandze People’s Hospital to carry out Needs Assessment and to

*Consultancy visit to Kandze People’s Hospital, Dartsedo, Eastern Tibet*



conduct a workshop to guide the team in planning the growth of the Kham Eye Centre that would facilitate the scaling up of the existing eye department to a full fledged eye hospital.

## **TEACHING AND TRAINING DIVISION**

The following management and skills development courses on eye care services are offered at LAICO:

- Management Priorities in Eye Care Delivery
- Management Training for Eye Care Programme Managers
- Management Training and Systems Development for Hospital Administrators
- Community Outreach
- Fellowship in Eye Hospital Management
- Training in Eye Hospitals Operation Project
- Management Training for Eye Care
- Instrument Maintenance and Training

### **MANAGEMENT PRIORITIES IN EYE CARE DELIVERY**

January 6-12, 2008

This programme strengthens the management perspective of the heads of eye hospitals. It provides an overview and appreciation of different principles and practices of management that contribute to more effective and efficient delivery of eye care services. The heads of following hospitals participated.

- Biratnagar Eye Hospital, Nepal
- Beent Hospital, Chengalpattu, Tamilnadu
- East London Eye Hospital, South Africa
- Mercy Eye Centre, Nigeria

*Participants of the Management Priorities in Eye Care Delivery Course with the LAICO team*



- LEpra Society, Andhra Pradesh
- Ministry of Health and Sight Savers International supported Project, Zambia, Zambia
- Christian Medical College and Schell Eye Hospital, Vellore, Tamilnadu
- Lions SightFirst Eye Hospital, Kenya
- Mahatma Eye Bank and Eye Hospital, Nagpur, Maharashtra
- Sadguru Netra Chikitsalaya, Madhya Pradesh
- Sheikh Zayed Regional Eye Care Centre, Gambia
- Priyamvada Birla Aravind Eye Hospital, West Bengal, India
- St John Eye Hospital, Israel
- Jimma University Hospital, Ethiopia
- Noor Eye Hospital, Iran
- Usha Kiran Eye Hospital, Mysore, Karnataka, India
- Lotus Eye Care Hospital (P) Ltd, Salem, Tamilnadu, India.

### **MANAGEMENT TRAINING FOR EYE CARE PROGRAMME MANAGERS**

February 11 – 22

The objective of this training was to enable the participants to acquire knowledge, skills and attitude to become effective eye care programme managers.

Following were the participant organisations:

- Voluntary Health Association of Tripura, Tripura
- Right to Sight International, Chennai
- ORBIS International, Delhi,
- ORBIS China, Bangladesh, Vietnam
- The Tun Hussein Onn National Eye Hospital, Malaysia
- Nari Uddug Kendra, Bangladesh
- CCSHH, Honduras, South America
- Rajiv Gandhi Charitable Trust, Delhi
- He Eye Hospital, China
- FUNCRISA, Ecuador, South America
- Sightsavers International, Rajasthan, West Bengal
- Seva Foundation
- Vision 2020, Delhi

### **MANAGEMENT TRAINING AND SYSTEMS DEVELOPMENT FOR HOSPITAL ADMINISTRATORS**

This course is designed to give exposure and training in the best practices in day-to-day operations management in an eye hospital. Each student is guided to develop and take back a detailed action

plan to implement the new ideas and concepts learned in the course.

In the fourteenth course conducted from April 16 to May 26, 2007 eight participants from various countries like India, Bangladesh and Nigeria participated.

In the fifteenth course, held from October 1 to November 10, 2007, a total of 16 members from India and abroad participated.

### **COURSE ON COMMUNITY OUTREACH AND SOCIAL MARKETING OF EYE CARE SERVICES**

The main objective of this course is to improve the community outreach activities of the organisation.

The course held from June 15 - July 14 was attended by a total of 11 participants from Tanzania, Bangladesh, India, Nepal and Indonesia.

The next course conducted from November 15 - December 14 was attended by a total of 7 participants from India and Zambia.

### **FELLOWSHIP IN EYE HOSPITAL MANAGEMENT**

The third batch of Fellows joined the Fellowship training on July 16, 2007. On completion of the training, they will be employed as Managers in various areas according to their aptitude, skills and requirement in the system.

### **TRAINING IN EYE HOSPITAL OPERATIONS**

October 15 to January 15, 2008

This three month training aims to train department coordinators and internally utilise them in various areas of Aravind Eye Care System. The training is offered in three phases- Orientation Process, Foundation Course and Structured Training in the various areas such as Patient Care, Medical Records, Community Outreach, Housekeeping, Communications, Stores Management, IT and Telemedicine, and Optical/Medicals.

### **PROJECT MANAGEMENT TRAINING FOR EYE CARE**

August 6-31, 2007

The course aims to enable the participants acquire knowledge, skills and develop attitude to manage eye care projects effectively. A total of 14 participants from various Indian states participated.

### **INSTRUMENTS MAINTENANCE AND TRAINING**

*First Instruments Maintenance course in French*

The fifty second Instruments Maintenance course taught in French Medium for the technicians of Francophone countries was held at Aravind-Puducherry, from May 1 to June 30, 2007. It was attended by Mr. Zigant Marc Dominique from Burkina-Faso and Mr. Ramerison Mamisoa from Madagascar. Three more courses were held in the last year at Aravind-Madurai in which a total of 18

*Participants of Management Training for Eye Care Programme Managers course with the LAICO team*



*Participants of Community Outreach and Social Marketing Course with the LAICO team*



trainees from Kenya, Saudi Arabia, Jamaica, Mozambique, Bangladesh and different parts of India participated.

## **CONTINUING PROFESSIONAL EDUCATION PROGRAMMES**

### **PRISM – Reflecting Perspectives in Hospital Management**

February 9, 2008

PRISM is a one day National Conference to provide new insights and approaches of addressing various managerial issues for improving the delivery of hospital services. A total of 128 delegates participated. The guest faculty were Dr. Dinesh Kumar Tyagi, IAS, Dr. Vivek Desai, Mr. K Chandrasekar, Mr. T Murali, Mr. S. Annamalai, Mr. Denny John and Mr. Keerti Bushan Pradhan.

## **OCTOBER SUMMIT**

### **Global Workshop on Training of Trainers for Allied Health Personnel in Ophthalmology**

Aravind-Madurai, October 2-4, 2007

On October 1, Aravind released the world's first comprehensive series of training books: The Ophthalmic Assistant Training Series and Training in Eye Care Support Services Series. These eight volumes, developed from Aravind's thirty years of training of allied eye health personnel, formed the basis of the Global Workshop on Training of Trainers for Ophthalmic Assistants and Technicians that proceeded during October 2-4. Forty-six participants from eleven countries who received training skills were introduced to the new training series, and invited to use and comment on the books in the year. This workshop was co-sponsored by the Seva Foundation.

Dr. William F. Astle, President of the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO), Dr. William H. Ehlers, President-Elect, JCAHPO, Ms. Lynn, Dr. Anderson, Executive Director of JCAHPO, and Dr. Pararajasegaram, WHO, officiated at the release of the books. Series co-developers Dr. Suzanne S. Gilbert, Director, Centre for Innovation in Eye Care, Seva Foundation, Dr. Kathryn Hecht, Seva Volunteer and Ms. Susan Spinola, Seva Volunteer all took part in the dynamic workshop.

### **Workshop on Benchmarking for Excellence in Eye Care Service Delivery**

LAICO, October 5, 2007

A total of 45 participants from various eye hospitals and INGOs from 15 countries participated. The purpose of the workshop was to introduce the concept of benchmarking to the participants and to demonstrate the prototype of a web based platform called EyeQ that would facilitate benchmarking of eye hospitals across the world supported by Seva Foundation.

### **Global Consultation on Reaching the Unreached**

LAICO, October 6-8, 2007

A total of 44 members participated in the workshop. The participants were from different places in the world such as Egypt, Paraguay, Bangladesh, India, Vietnam, China, USA, Tanzania, Nepal, Pakistan, Malawi, Ghana, Ethiopia, UK, Canada, Guatemala, Switzerland. The main objective of the workshop was to learn from each other different ways of reaching everyone with eye problems in the community, to evolve different strategies to make eye care reach the people who are currently not accessing, and to ensure coverage of all eye diseases. This course was sponsored by WHO, Seva Foundation.

### **Workshop on Consultancy Skills for the SEVA CCO Partners**

LAICO, October 9-11, 2007

SEVA Foundation in partnership with eye care institutions named as Centres for Community Ophthalmology (CCO), is working towards making

*Participants to 'Benchmarking for Excellence in Eye Care Service Delivery' with the LAICO team*



eye care services available to all. As a beginning, to the year long process of building capacity of the CCO partners, a three day workshop for improving consultancy skills was held at LAICO. A total of 22 participants including representatives from all CCOs and SEVA attended the workshop. Mr. Colin Williams and Mr. John Bickel from the UK based consultancy group W<sup>2</sup> were the facilitators. Dr. Pararajasegaram, Consultant from WHO also contributed to the workshop. Each organisation was asked to come prepared with the real time problem statement to practice the application of the consultancy skills. By the end of the workshop each institution developed specific action plan to address its respective problems.

### **WORKSHOP ON MODEL EYE CARE SERVICES**

LAICO, November 1-3, and November 5-7, 2007

The workshop was supported by Ireland based INGO Right to Sight. A total of 15 participants from University of Kwazulu, Natal, South Africa, Vision 2020 Focal point for Somalia, Somalia Republic, NGO, Garbet Tehadiso Mahber, ORBIS-International, Ethiopia, Quiha Hospital, Mekele, Tigrary, King Faisal Hospital, Kigali, and Ministry of Public Health attended the workshop. The main objective of the workshop was to provide an overview on the need of eye care programmes and the current challenges in Africa and set a road map to combat blindness and orient about a feasible eye care service delivery model.

The second workshop was held from November 5-7. The participants were from Cappagh Hospital



*Participants of the Workshop on Consulting Skills for the SEVA CCO Partners*

Research and Development Trust, Ireland, Proyecto Vision, Spain, ICEE, South Africa, Right to Sight from Kenya, UK, India, University of Cape Town, South Africa, Central Hospital Kigali, Rwanda.

### **OFF-SITE TRAINING PROGRAMMES**

#### **Eye Care Programme Managers Course**

Fred Hollows Foundation, Sydney, November 12-15, 2007

Fred Hollows Foundation invited LAICO to deliver a customised version of the two week programme managers' course for their programme staff. A four day training programme was organised for their Sydney central office and country programme staff. The LAICO team comprised Mr. R.D. Thulasiraj, Dr. Prajna and Ms. Preethi Pradhan. The sessions covered included needs assessment and planning, the eye diseases module covering cataract, refractive errors, diabetic retinopathy, low vision and paediatric eye care; core concepts in eye care

*At the launch of the manuals for Ophthalmic Assistants and Ophthalmic Support Service Personnel*



management as well as monitoring evaluation and partner enablement. A total of 21 participants attended the workshop.

#### Curriculum Development Workshop

LAICO, June 29-30

The purpose of the workshop was to design a curriculum for leadership programme for ophthalmologists. Five external faculty were invited to participate along with Aravind's own to understand the range of responsibilities and the challenges faced by several heads of departments. It was followed by a the brainstorm session on the various competencies required for the head of a clinical department. The group discussed the structure of the programme and created a framework. The final session was on "Creating an Enabling Environment" by Prof. L Prasad from Indian Institute of Management, Bangalore, which was attended by the senior leadership team.

#### OFF-SITE CONSULTANCY WORKSHOPS

Gomabai Nethralaya and Research Centre, Neemuch, Madhya Pradesh, December 21-25

Dr. Narendran, Aravind-Coimbatore and Ms. Sashipriya, Faculty, Mr. Suresh Kumar, LAICO Faculty made a visit to Gomabai Nethralaya and Research Centre to conduct the Strategic Planning Workshop. The main objective of the workshop was to understand the current situation issues challenges was also looked into and plan for growth strategies that will lead to sustained growth. During the visit, for made on the strategy and action plan prepared

*Aravind Faculty with the programme managers at the Fred Hollows Foundation, Sydney*



during 2006 in the diabetic retinopathy and standardisation workshop.

Lumbini Eye Institute, Nepal, December 27, 2007- January 4, 2008

Dr. Venkatesh, Aravind-Puducherry, Mr. Suresh Kumar, and Ms. Sashipriya, Faculty, from LAICO, Mr. Nagarajan and Dr. Sandra Dratler, Seva made a visit to Lumbini Eye Institute, to participate in the Strategic Planning Workshop. On January 4, they participated in the VISION2020 Western Region of Nepal planning meeting.

#### PROJECTS DIVISION

LAICO Projects Division contributes to the elimination of needless blindness through

- Effective provision of end to end project management systems and processes
- Development of project management capability through sharing of best practices, systems and training

The main areas of work under this division are promoting the right approaches to project development, its implementation and evaluation. The developments in the year ending March 2008 in the major projects are discussed here.

#### Primary Eye Care through Vision Centres

Lavelle Fund, USA is supporting establishment of 20 Vision Centres, now onwards known as 'Primary Eye Examination Centres' in rural parts of

*Participants of the Curriculum Development Workshop*



Tamilnadu and Puducherry. In phase one, eight Vision Centres were established. In phase two, nine more have been established. Based on the experience gained on an earlier initiative, Aravind is incorporating Community Based Rehabilitation coupled with systematic community based activities, thus providing comprehensive coverage and services – preventive, curative and rehabilitative. On the rehabilitation front, twenty eight incurably blind people and twenty nine persons with low vision have been identified and provided rehabilitation services. Each of these centres are staffed by a team consisting of a Technician, a Counsellor and Eye Health Community Workers. All these cadre staff undergo specific training programmes set up for this purpose.

#### Aravind WDF Diabetic Retinopathy Management Projects - Phase III

Aravind has developed a sustainable service delivery model for Diabetic Retinopathy with the support from Lions Clubs International, World Diabetes Foundation and the Government of India – through its TIFAC CORE. With the successful implementation of Diabetic Retinopathy (DR) Programme at Aravind-Madurai, Tirunelveli and Puducherry, WDF is now extending support to further expand this programme to Aravind-Coimbatore covering three districts-Coimbatore, Salem and Erode. Through this DR screening programmes, Aravind is reaching out to about 40% of the Tamilnadu’s population. Key strategies of the DR programme are continuous awareness creation campaigns, aggressive outreach, providing required diagnostic and treatment services and employing

*At the inauguration of the Primary Eye Examination Centre at Gandhigram*



information technology to extend the clinical expertise to centres that need them. Experience and insights gained through this programme are being shared with other eye care programmes through publications, seminars and participation in expert committees.

#### TIFAC-CORE in Diabetic Retinopathy Project – Phase II

Aravind Eye Hospital has established TIFAC-CORE in Diabetic Retinopathy in February 2003 with the support from Mission REACH, TIFAC and Industrial partners. The Phase I of this project was completed in March 2006. The Phase II of this project commenced in July 2007 with the objectives of commencement of academic programmes, research and development. The main focus is given to Research on “Functional Genomics and Proteomics of Diabetic Retinopathy”.

#### Paediatric Ophthalmology Learning and Teaching Centre

Considering the criticality of not having the required human resources to deliver paediatric ophthalmology services as envisaged in the VISION2020 National Plan, ORBIS International, India has been supporting Aravind since August 2003 to provide the necessary training programmes. The second phase of the programme began in Jan 2007, during which two manuals were published - “Orthoptics simplified” - a manual for orthoptists and post graduates; “Paediatric Ophthalmology Practitioners’ guide”, a manual for general paediatricians. Under this project Aravind is involved in developing the capacity of

*At the VISION2020 Western Region of Nepal Planning Meeting*



Regional Institute of Ophthalmology, Kolkata and Sadguru Netra Chikitsalaya.

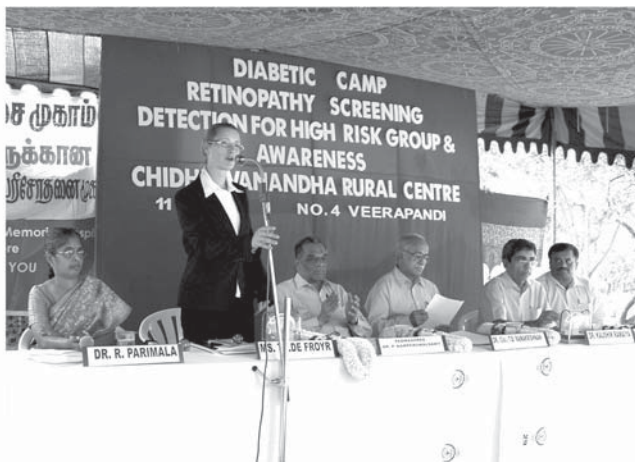
### Consultancy for Setting up Diabetic Retinopathy Services in Peking University Eye Centre, Beijing, China

The International Council of Ophthalmology Foundation has identified Beijing University Eye Centre, Beijing as a site for the Eli Lilly Diabetic Eye Disease Centre (ELDEDC) to provide advanced care for diabetic eye diseases by developing sustainable programme for detection and treatment. For this two year programme, LAICO supports ELDEDC to set up and manage Diabetic Retinopathy services through systematic approach and help put in place the appropriate service delivery and human resources development mechanism. A team from LAICO made a Needs Assessment Visit to PUEC-ELDEDC on June 20-21. Based on the observations during the needs assessment visit, the team made specific recommendations to the PUEC-ELDEDC team. After the initial assessment, the team organised the internal strategic planning meeting with the ELDEDC team of Retina specialists and paramedical staff on June 25-26. Based on these inputs, the PUEC-ELDEDC team prepared the strategies and action plan to achieve their project objectives.

### Creating Access for Rural Eye Care

Rotary Clubs International is supporting Aravind to experiment on developing a service delivery approach that will motivate patients with visual

*Ms. Tilde Froyr, Programme Co-ordinator, WDF at a DR screening camp near Aravind-Coimbatore*



impairment seek eye care on their own. This project covers a population of 130,000 near Dindigul, Tamilnadu. This involves recruiting and training the field workers (5) to carry out house to house enumeration of those with eye problems through basic eye screening and motivating them to seek care in an eye hospital. The study will monitor the level of self-uptake and also seek to provide services through eye camps to those who do not go to an eye hospital.

## RESEARCH DIVISION

### Investigating Gender in Equity in the uptake of Cataract Surgeries in Aravind Eye Hospitals, Madurai-SEVA Canada

The main objectives of the research are to assess the existence of gender equity in the uptake of surgeries in each of the 3 arms (camp, direct free and paying) of Aravind-Madurai and, to quantify and qualify the gap in utilization, to use the results to bring about desirable changes in the uptake pattern.

The sample size of this prospective study is 6600 patients recruited from all the three sections together (2200 per arm) so as to be able to detect a difference as small as 6% between the proportion of men and women undergoing cataract surgery in each of the three sections allowing 5% alpha error with 80% power. The data collection is underway and is expected to be completed by May 2008.

### Human Resource Practices which influence Employee Satisfaction and Patient Satisfaction

This study aims to understand the human resource practices which influence patient as well as employee satisfaction. This will provide direction to human resource practices which can ensure high levels of internal and external customer satisfaction. A comparative exploration of these factors within the cataract departments of stand-alone eye hospitals; a public sector eye hospital, two NGO hospitals - one mainly catering to the free patients, and the other predominantly to paying clientele in Tamilnadu.

The objectives of the study

- To develop an instrument for measuring patient satisfaction
- To validate an instrument for measuring employee satisfaction in the hospital context

- To use the instruments developed to measure patient and employee satisfaction in the organisation planned
- To map the overlap of domains and thereby, to enumerate HR policies that could maximise customer delight

The questionnaires are currently under testing, following the finalisation of which, the data collection will be completed.

External Guides:

- Dr. VR. Muraleedharan, Professor and Head of Department, Humanities and Social Sciences, IIT, Chennai

Dr. T.J. Kamalanabhan, Professor, Department of Management Studies, IIT, Chennai

Internal Guide: Mr. R D Thulasiraj

Research Scholar: Ms. Preethi Pradhan

#### **Assessment of the Prevalence and Socio-Economic Burden of Near Vision Impairment Caused by Uncorrected Presbyopia-WHO**

The overall objective of this research is to assess the prevalence and socioeconomic burden of near visual impairment caused by uncorrected presbyopia. Demographic and socioeconomic characteristics will be taken into account in identifying broadly representative study populations. The objective of the initial study is the estimation of the prevalence of near vision impairment in adults of 35 years of age and more.

The study is under way and is expected to be completed by September 2008.

*Mr. R.D. Thulasiraj at the VISION2020 India of Governing Body meeting held at Bangalore*



## **OTHER MEETINGS**

Mr. R.D. Thulasiraj attended the Vision 2020 Association of Governing Boards (AGB) Meeting held at West Lions Super speciality Eye Hospital, Bangalore, July 19-20, 2007.

### **IT Advancement in Health Care Delivery and II Annual Health IT Executive Summit**

Goa, September 1-2, 2007

Mr. R.D. Thulasiraj Executive Director, LAICO participated in the IT Health Care Delivery and II Annual Health IT Executive Summit meeting conducted by Frost and Sullivan.

### **Annual Meeting of International Agency for Prevention of Blindness (IAPB)**

Vancouver, Canada, September 17-22, 2007

Mr. R.D. Thulasiraj, participated in the session on sustainability and in the sessions related to Gender issues and development of mid level eye care personal in South East Asia region.

### **Bio-Medical Engineering Workshop**

September 24 - October 5, ORBIS International, Menelik, Ethiopia

Prof. V. Srinivasan and Mr. S. Poornachandran from Instruments Maintenance Department went as visiting faculty for the Bio-Medical Engineering Workshop organised by ORBIS International at Menelik II Hospital in Addis Ababa, Ethiopia.

### **Workshop on Community Ophthalmology**

Logrono, Spain, October 24-29, 2007

Mr. R.D. Thulasiraj, Executive Director, LAICO and Dr. S. Aravind, Administrator were in Spain from

*At the Workshop of Bio-Medical Engineering, Menelik, Ethiopia*





*Dr. S. Aravind and Mr. R.D. Thulasiraj with Dr. Julio Yanguela Rodilla, President, Vision Mundi Foundation, Logrono, Spain*

October 24-29, 2007 to attend the ‘Vision Mundi’, the Spanish international meeting for the prevention of blindness in developing countries held in Logrono, Spain.

#### **Fifth Annual Tifac-Cores Meet 2007**

Manipal Life Science Centre, Manipal University, October 26-28, 2007

Dr. R. Kim, Project Coordinator, TIFAC-CORE and Mr. V. Vijayakumar, Project Manager, participated. R. Kim made a presentation on the achievements of TIFAC-CORE in Diabetic Retinopathy – Phase I and the proposed activities for Phase II.

#### **VISION2020 Meeting**

Mr. R.D. Thulasiraj, Executive Director, LAICO participated in the Vision 2020 workshop meeting at ICEH London on October 30-31, 2007.

*At the Eye Care Management Workshop, Cairo, Egypt*



#### **Eye Care Management Workshop**

Al Noor Foundation, Cairo, Egypt, November 23-24, 2007

**MR. SANIL JOSEPH**

- *Service Marketing in Eye Care*
- *Vision Centre Management.*

#### **Meeting on Prevalence and Socioeconomic Impact of Near Vision Impairment**

WHO, Geneva, December 3-6, 2007

Mr. R.D. Thulasiraj, took part in the Consultation on Assessing the Prevalence and Socioeconomic Impact of Near Vision Impairment Caused by Uncorrected Presbyopia.

#### **Workshop on Vision Science Resource Centre Collaboration**

Lumbini Eye Institute, Nepal, February 10-12, 2008

Mr. Kirubanithi, Sr. Librarian from LAICO attended Workshop as a Primary Facilitator. The main objective of the Meeting was to “Frame up the Association of Vision Science Librarians for the South Asia Wing”.

#### **IAPB Business Plan Meeting**

Chittagong, March 21-22, 2008

Mr. R.D. Thulasiraj attended IAPB Business Plan meeting at Chittagong from March 21 -22.

*Mr. Kirubanithi at Vision Science Resource Centre Collaboration workshop held at Nepal*



# INFORMATION TECHNOLOGY AND SYSTEMS

This year marks the silver jubilee of Aravind's deployment of computers and information technology to streamline administration and enhance patient care. A beginning was made with two Apple Computers. Since then tremendous progress has been made with Aravind being placed as one amongst the 20 most wired organisations in the country. This momentum has kept up and during the year several new applications have been developed and many more hospitals are using the software and systems developed by Aravind.

## NEW APPLICATIONS DEVELOPED

### Vision Centre (Primary Eye Examination Centre) Management System:

Patient registration, billing, Electronic Medical Records, accessing data from base hospital, generate prescriptions, data retrieval for monitoring are the key aspects of this application which was implemented in eighteen centers across Tamilnadu during this year, taking the total number of users to twenty three.

### Image Management System

This system is developed to manage all clinical and other photos at a central location for easy access.

### Eye Bank Management System

This software was reviewed and upgraded with many new and improved features and implemented at Aravind-Coimbatore.

### Project Management System: (ProMys)

This facilitates monitoring project activities, performance against target and expenses against budget. It can help prepare performance or financial reports and has provision for archiving all project related documents for easy access. While the implementing agency updates the system, the funding agency can also have access, thereby enhancing the level of information sharing without any additional efforts.

### ARMIS – Aravind Resident Management Information System

It is designed to capture all relevant information required to evaluate each Resident's performance taking to clinical skills, Academics and also on their

soft skills like interpersonal relationships, talking responsibilities etc.

### Aurosiksha – Course Management Information System

It is developed to manage all the trainee and training details and prepare candidate statistics and necessary financial reports.

### Personnel Information System – Mini Version

This system is developed for smaller hospitals to track employees' appointments, attendance, leave, payroll details and generate necessary reports.

### Integrated Hospital Management System

The list of users of this application including the five Aravind Eye Hospitals grew to 42 locations with the addition of the following hospitals during the year:

- KMMEH, Bharatpur, Nepal
- Venu Eye Hospital, Delhi
- Ayodhya Eye Hospital, Ayodhya, Uttar Pradesh
- Sudarshan Netralaya, Amreli, Gujarat
- Geta Eye Hospital, Dhangadi, Nepal
- Kedia Eye Hospital, Birganj, Nepal
- Dr. Joseph Eye Hospital, Trichy
- Shalina Eye Clinic, Congo
- Grameen GC Eye Hospital, Bogra, Bangladesh
- Khulna BNSB Eye Hospital, Khulna, Bangladesh
- Sajida Foundation Eye Hospital, Bangladesh

## UPGRADATIONS

All the servers in Madurai were upgraded to Blade servers and a centralised bank of servers are now located at LAICO for providing better security, maintenance and support. A detailed plan is worked out to upgrade the servers in all the satellite hospitals in 2008.

All the Aravind Eye Hospitals are interconnected to improve data exchange and to facilitate the implementation of Virtual Academy.

## ARAVIND TELE-OPHTHALMOLOGY NETWORK

Following the successful deployment of wireless connectivity (802.11b) in Vision Centres at Theni, Aravind explored alternative connectivity using the

readily available broadband services from several telecom service providers. This was successfully implemented during this year for linking the Aravind Vision Centres to the base hospitals. This now opens up the possibility of other eye care providers setting up such IT enabled Vision Centres in their service areas. A total of 18 Vision Centres with broadband data connectivity to enable telemedicine was set up during the year with support from Lavelle Fund.

#### Collaborating with NPCB, Ministry of Health, Government of India

NPCB is working with various partners to develop appropriate Telemedicine based service delivery models through a pilot initiative. Aravind is one of the partners taking part in this one year pilot project, under which an IT enabled Vision Centre was established at Rameswaram demonstrating a model providing comprehensive primary eye care services to the community. Here Aravind successfully experimented using broadband DSL connectivity for the first time to link up with Aravind Eye Hospital, Madurai. A detailed report, documenting the performance, learning experiences, impact and recommendations have been submitted to the Ministry of Health.

#### Diabetic Retinopathy Images Reading and Grading

Aravind TIFAC-CORE in Diabetic Retinopathy, with the support of TOPCON South Asia Pvt Ltd, Singapore has developed a Diabetic Retinopathy Reading and Grading Software, ADRES (Aravind Diabetic Retinopathy Evaluation Software). It allows for exchange of images of retina and clinical information of diabetic patients between the client and the grading centre at Aravind Eye Hospital, Madurai. The software allows multiple connectivity channels such as VSAT (satellite), Leased line or DSL Broadband. Hence the client centre could be anywhere including a mobile unit with VSAT. Eye care programmes that do not have retina specialists or doctors from other disciplines like diabetologists could use this software to get the services of a retina specialist, ultimately to benefit the patients. This tele-consultation model has been extended (in addition to the MV Diabetes Centre) to two more diabetes centres at Coimbatore and Tirunelveli in March 2008. In addition to this, Neotia Elbit Hospital Venture Limited, Kolkata is planning to set

up two centres to provide this service to their diabetes patients.

#### Tele-education

Aravind's Online Virtual Ophthalmic Academy was inaugurated on January 19, 2008 by Dr. A.P.J Abdul Kalam, former President of India.

Aravind is working with ISRO which provides support for the development of the complete software and systems that would facilitate the functioning of the Virtual Academy. A data centre has been set up at Aravind-Madurai with high capacity servers (comprising of minimum 5 servers) that have the following as components:

- Virtual Tele-education delivery system
- Content management system
- Digital library: virtual library server
- E-learning system
- E-governance suite

A full fledged multimedia studio with video cameras, video and audio mixers etc., have been deployed for live transmission of interactive lectures over the virtual academy network. The synchronised delivery output of audio and video will be fed into the streaming server which is further interfaced with the tele-education delivery system components. This set - up provides a means for the VSAT based education programmes to be broadcasted from the studio. The classes conducted at Aravind Eye Hospital, Madurai is telecast live to other connected centres. The transmission is recorded simultaneously in software which could be utilised later at the convenience of the students.

#### Aravind Tele-ophthalmology Network Retreat

ATN Retreat was held at LAICO on July 28, 2007, to manage the present challenges and realise the newer opportunities. Realising the potential of providing quality tertiary eye care and contributing to continuous education irrespective of challenges like accessibility and availability, Aravind set up ATN in June 2002. Now stepping in its fifth year this network has thus far taken different initiatives

- Benefiting patients be it at the level of primary or tertiary eye care
- Providing impetus to our training programmes
- Enabling to foster closer ties across Aravind Eye Care System

# HUMAN RESOURCES

The Human Resources department during the year 2007- 2008 focussed on standardising the HR activities across all Aravind facilities. Many new initiatives were undertaken this year to enhance employee participation in the organisation. Several retreats were organised where they were encouraged to think beyond their realm of work, to participate and contribute to Aravind's dream of eliminating needless blindness.

## TRAINING

- It has been over 30 years since Aravind began its mission of eliminating needless blindness. At this juncture, while there is a tremendous opportunity to grow and unfold in new directions, the foremost challenge is in keeping the leadership energy and passion alive and the culture of the organisation intact. To meet this challenge, the HR Department jointly with LAICO has started a new initiative called YOGAM that is aimed at nurturing and developing leadership skills in senior ophthalmologists. YOGAM will become an annual program designed to give senior ophthalmologists support and guidance to grow as leaders in their departments and contribute to the overall growth of the organisation. The training was conducted in three phases and each was conducted in different locations. A total of 15 ophthalmologists participated. The first phase of Yogam 07 was held at Puducherry from September 8-12, 2007. The next phase of Yogam 07 was held in Madurai from Jan 3-5, 2008. The third phase was held in Courtallam from March 14-16, 2008.
- To bring out the latent potentials in the individuals and to reinforce the spirit of teamwork among them, the HRD organised a four day retreat for each category of employees ranging from the top managerial staff to the last grade worker across all Aravind Hospitals. Two days of outbound learning at Pegasus Institute for Excellence, Marakkanam was a part of this retreat. It was followed by a two day envisioning retreat at puducherry which focused on setting long term goals and framing action plans to achieve them. Pegasus Institute has been offering this training at free of cost as a token of appreciation of Aravind's service to humanity. In the last year, staff members from Aravind Communications, Administration, Community Outreach, Refraction and Optical (in two batches) underwent this training.
- A workshop and retreat was conducted for the MLOPs at Dhan Foundation, from July 6-7 to provide a casual, stimulating and refreshing experience. The retreat was attended by MLOPs from all departments of all Aravind Eye Hospitals.
- A four days workshop was held at LAICO from July 2-5 for the MLOPs selected as MLOP- HR representatives from all the five Aravind Eye Hospitals to provide them an overview of the role to be played as HR representatives.
- A week long Orientation Programme was held from March 31 to April 4 to equip the newly selected supervisors and Tutors with required knowledge, skill and attitude for performing their new role effectively and efficiently.
- A workshop on "Effective Communication and Stress Management" for administration coordinators was held at LAICO on February 16 for 25 coordinators from various departments. Prof. Sathya Shankar, Vice President, Eagle Software India Private Ltd. was the guest faculty.
- Human Resources Department, AECS, organised an annual HR Retreat from February 15-16 at Theni on the theme 'Share, Standardise and Capture'. Director – HRD, HR staff, HR representatives from the MLOP and Personnel Department staff of Aravind Eye Care System, totalling 24 attended the retreat.

## EMPLOYEE WELFARE ACTIVITIES

### Aurowel- Employee Wellness Program

Aurowel is the major initiative from HR Department to promote a healthy lifestyle among its employees. A basic medical check-up was done for all the employees of Aravind Eye Care System and the results were shared with each employee and

necessary support and suggestions were given for those who needed further investigations.

### Janakyamma Child Care Centre

Now, four Aravind Eye Hospitals have child care centres meant for the kids of Aravind staff, majority of whom are women. The activities in the centres really help in the primary development of the kids and provide a greater sense of satisfaction to the working mothers. This year, the tenth anniversary of the centre was celebrated at Aravind-Madurai.

### EMPLOYEE RECREATION ACTIVITIES

With the organisation growing in scale and in the number of new initiatives, there is always the danger of the employees feeling alienated or working in silos-from the organisation and among themselves too. To address this, the HRD organises retreats and recreational activities for employees from different facilities of Aravind to mingle with each other in an informal setting, thus bringing in a sense of belonging. This helps teams to work cohesively towards the organisation's common goal of eliminating needless blindness.

### Special gesture for senior staff members of Aravind Eye Care System

August 17, 2007

The Aravind team that has thus far crossed oceans to teach and learn, for the first time has taken a vacation! The Aravind management arranged for twenty one of Aravind staff who have dedicated their lives to Aravind's mission for more than 20 years, to go on a holiday trip to Hong Kong, Singapore, and Kuala Lumpur.

### Auroutsav celebrations at Aravind-Tirunelveli



### Auroutsav December 1-7, 2007

Auroutsav is a week-long series of competitions conducted for all employees of Aravind Eye Care System. The past year's theme was "a tribute to imagination and creativity". Auroutsav helps bring out the creativity and latent talent in everybody right from the ophthalmologists, the Ophthalmic Assistants, administrative staff and sanitary workers. Several competitions were conducted simultaneously at all Aravind Eye Hospitals.

### OTHER RECREATION ACTIVITIES

Several short trips to nearby picnic spots, temples and waterfalls are arranged from each of the Aravind Eye Hospitals for the ophthalmic assistants. These trips provide the employees a change from their mundane activities and have a refreshing impact on their minds.

Apart from these activities, HR departments observe special days and festivals such as Children's Day, International Women's day and Navarathiri Festival with competitions, debates etc.

### Departmental Exhibitions

To create an awareness of the roles of each cadre of Aravind staff and to recognise their contribution, various cadres of Aravind staff are encouraged to showcase their work and the genesis of their department since inception. In the past year, the Outpatient nursing staff, the Operation Theatre staff and the Intensive Care Unit staff, each held a two day exhibition displaying through various charts and aids.

### Auroutsav celebrations at Aravind-Coimbatore



# ARAVIND COMMUNICATIONS

Consisting of the publications and audio visual department, Aravind Communications is well equipped with the state-of-the-art desktop publishing facilities, digital photography, videography, video-editing and projection facilities.

## PUBLICATIONS 2007-08

2007-08 was a highly productive year for the division. Apart from the various patient information and education materials, the following manuals and text books were published.

- Five manuals on Ophthalmic Assistant Training and three on Training in Eye Care Support Services along with DVDs were brought out with Seva Foundation's support.
- With ORBIS support, two books on paediatric ophthalmology: Paediatric Ophthalmology – A Practitioner's Guide and Orthoptics Simplified were published.
- Aravind also published the fourth Edition of the Neuro-Ophthalmology text book.
- 'A Model for Managing Diabetic Retinopathy' was published under Lions Aravind Diabetic Retinopathy project

## WEBSITES DEVELOPED AND LAUNCHED IN 2007-08

- A website for Friends of Aravind, [www.friendsofaravind.org](http://www.friendsofaravind.org) was developed and launched with an online payment gateway to receive donations.

- Kolam – Aravind Discussion Forum for Alumni was introduced. With this, a long felt need of the Alumni for a platform for continued interaction is in place.
- THE AGE, the Glaucoma journal was launched this year.
- The [www.aravind.org](http://www.aravind.org) site was revamped with several user friendly features.

## STRATEGIC PLANNING MEETING

For the first time, a strategic planning meeting was organized for the Aravind Communications team, consisting of the publications staff, the audiovisual staff, the telemedicine staff, and Aravind news correspondents across all hospitals, Eye Bank, and Aurolab. The Pegasus outbound education was an awakening experience and set the participants' frame of mind apt for their first strategic planning meeting. The exercises were simple and took one on an insight journey unto oneself and one's relationships with others.

Following, the Pegasus experience, the Aravind Communications team had a two day retreat at Aravind-Puducherry where under the guidance of the Aravind HRD staff, the team discussed ways in which Aravind Communications can contribute to the mission of AECS. The team in smaller groups discussed and drew the group's action plan. Later, a representative from each group presented the group's aspirations.

*The Aravind Communications team with Col. Rajkumar and Col. A.B. Rajan at the Pegasus Institute for Excellence*



*at the formal inauguration of Priyamvada Birla  
Aravind Eye Hospital in its new premises*



## ARAVIND MANAGED EYE CARE SERVICES (AMECS)

2007-2008

**I**ndia like many other developing countries faces many problem due to inadequate eye care facilities which are further compounded by its unequal distribution. Committed to the mission of eliminating needless blindness, Aravind developed “Managed Eye Care” as a strategic approach to dramatically scale up the reach and uptake of services in underserved parts of India and other developing countries. This approach began in 2005 and the goal is to perform 500,000 surgeries annually by the year 2015 through a network of Managed Eye Hospitals. The process involves working with a socially conscious local partner - an individual or organisation, wanting to invest in eye care as a way of doing social good. While the partner invests the required capital and

creates the enabling environment, Aravind implements the project on a ‘turn-key’ basis and continues to run the hospital, in the exact same manner as Aravind Eye Hospitals by placing a core team from Aravind managing the key functions. Aravind is currently working with three such socially conscious organisations in the States of West Bengal (MP Birla group), Uttar Pradesh (Rajiv Gandhi Charitable Trust), and Gujarat (Nagardas Dhanji Shanghvi Trust). These three hospitals together have handled a total of 221,332 out-patients and performed 23,079 surgeries during the year. During the year, a new partnership was forged with Narotam Sekhsaria Foundation (NSF), which is interested in enhancing eye care in Rajasthan. As a first initiative, a detailed feasibility study was conducted to

*At the inauguration of Sudarshan Netralaya in Amreli, Gujarat*





*The Aravind Managed Eye Care Services (AMECS) team Retreat*

understand the eye care infrastructure, current performance and the unmet eye care needs in Rajasthan. Based on this a roadmap for implementation has been developed.

**Formal Inauguration of the Priyamvada Birla Aravind Eye Hospital**

Kolkata, May 1, 2007

Priyamvada Birla Aravind Eye Hospital, Kolkata moved into its new five storied facility and was inaugurated by Shri Somnath Chatterjee, Honorable Speaker, Lok Sabha. The new facility is equipped and staffed to be a tertiary level hospital and offers all advanced sub-specialty eye care.

**Inauguration of Sudarshan Netralaya**

Amreli, July 20, 2007

The third Managed Eye Hospital “Sudarshan Netralaya” in association with Nagardas Dhanji Shanghvi Trust at Amreli, Gujarat was inaugurated by Swami Shri Sachithanandji. This 30 bed eye hospital meets the secondary eye care needs of Amreli and the neighbouring districts.

**Structuring the Activities of Managed Eye Care**

The goal of performing 500,000 surgeries annually by the year 2015 through managed eye hospitals requires the right structure, staffing and processes. Michael Johnson, an assignee from IBM placed by Adopt-a-Business, helped in refining and defining the role of this new structure named as “Aravind Managed Eye Care Services”. Its broad roles are building partner relationships, establishing hospitals and running the hospitals with a seamless interface to the Aravind Eye Care System and create synergy. Narotam Sekhsaria Foundation has given a generous grant to build the capacity of AMECS to reach its goal.

To take this forward and work out short-term goals and strategies, a retreat was organised in LAICO on March 21- 22, 2008. The retreat included reflection and learning from the experience of establishing three managed eye hospitals resulting in the documentation of various process involved. The retreat in addition to the AMECS team included the Senior Leadership Team of Aravind, senior doctors, and administrators of the three managed eye hospitals and a team of project students from University of Michigan.

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**AMECS: PERFORMANCE: APRIL 2007 - MARCH 2008**

	OUTPATIENTS			SURGERIES		
	Hospital	Eye camps	Total	Hospital	Eye camps	Total
M P Birla Eye Hospital, Kolkata, West Bengal	45,810	26,964	72,774	4,974	8,139	13,113
IGEHR, Amethi, Uttar Pradesh	68,372	41,621	109,993	1,365	1,156	2,521
Sudarshan Nethralaya, Amreli, Gujarat	24,642	13,923	38,565	2,097	5,348	15,634
<b>Total</b>	<b>138,824</b>	<b>82,508</b>	<b>221,332</b>	<b>8,436</b>	<b>14,643</b>	<b>23,079</b>

## ARAVIND EYE BANKS

2007-2008

**E**ye banks located at Aravind Eye Hospitals at Madurai, Tirunelveli, Coimbatore and Puducherry provide corneas and other eye tissue for sight-restoring transplant surgery. The eye banks are also involved in various training and awareness creating activities. In the last year, they took new initiatives to improve collection of eye balls. Various awareness programmes were arranged in colleges, self-help groups, Lions Clubs, Rotary Clubs and in several non-profit organisations.

Each year the Eye donation fortnight is observed fervently in all Aravind Eye Banks. Joining hands with several community organisations and compassionate corporations, several awareness programmes such as public rallies, interactive sessions through the radio and television are held.

*Awareness Rally on eye donation at Aravind- Madurai*



### TRAININGS OFFERED

1. Physician Training was offered for four doctors from Eye donation centres of Rotary club of Devakottai, Rotary club of Ottanchatram and Lions club of Velankanni
2. Eye Bank Technician Training was given to a technician from the Institute of Medical Sciences and Sum Hospital, Bhubaneshwar.

Aravind Eye Banks	Eyes Received	Used for Corneal Transplantation
Madurai	1,803	530
Tirunelveli	58	77
Coimbatore	857	308
Puducherry	184	106
Total	2,902	1,021

*Evaluation process*





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

2007-2008

**F**rom the initial days of performing large scale operational studies on barriers of service delivery, research at Aravind has grown to encompass all areas of research in ophthalmology - basic, clinical, operations research including community outreach and, with the establishment of Aurolab, product development. To integrate all these, the Dr. G. Venkataswamy Eye Research Institute was formed to be the nodal body.

Now with the establishment of Centres of Excellence within Aravind's speciality clinics, alongside its continued emphasis on academic rigor and its recent thrust on developing comprehensive service delivery models in areas like diabetic retinopathy, glaucoma

and paediatric ophthalmology, as well as its rapid strides in the field of tele-ophthalmology with remote consultations and teleconferencing between hospitals, Aravind is poised as never before to take on new challenges in research.

## ON GOING PROJECTS

### BASIC RESEARCH

The major ongoing basic research studies are:

- Identification of candidate genes and screening for polymorphisms of genes associated with Type 2 diabetic retinopathy
- Understanding the molecular genetics of inherited congenital cataract

*Prof. Muthukkaruppan with Junior Scientist Ms. GowriPriya and Junior Research Fellow Ms. Murugeswari*



- Congenital rubella syndrome – an eye hospital based investigation
- Genetic and functional dissection of FOXL2 gene involved in the pathogenesis of blepharophimosis syndrome (BPES)
- Studies on the proangiogenic and vascular growth factors in relation to the pathogenesis of Eales' disease and diabetic retinopathy
- Identification, characterisation and quantification of human buccal epithelial stem cells for corneal surface reconstruction
- Will cytoskeletal drugs prevent Posterior Capsular Opacification (PCO)?
- The isolated human limbal basal cells with high levels of p63 expression and large N/C ratio possess slow – cycling property
- Pathogenic mechanism of uveitis associated with Leptospiral infection
- Molecular genetic analysis of Corneal Endothelial Dystrophies
- Proteomic study of the tears of patients with fungal keratitis
- Ocular infection and multiplex PCR
- A genetic component to the INDEYE study of cataract and age-related macular degeneration in India
- Corneal Surface reconstruction using cultured Human Limbal Epithelial Cells
- Identification of genetic defects occurring in Indian Oculocutaneous (OCA) and Ocular Albinism (OA) families
- Correlation of Macular and RNFL thickness on OCT in Primary Open Angle Glaucoma
- Patient-reported barriers to glaucoma medication access, use, and adherence in Southern India
- Plasma Biomarkers in Primary Open Angle Glaucoma - A Pilot Study and Analysis
- Thinner Corneas correlate with severity of glaucomatous optic nerve damage in Glaucoma
- IOP Elevation following Intravitreal Triamcinolone
- Efficacy of Intravitreal Bevacizumab in Management of Neovascular Glaucoma
- Rubeosis Iris- Pre-injection phase and regression of the new vessels 2 weeks after intravitreal Bevacizumab
- Efficacy of topical Dorzolamide as compared to Brimonidine in prevention of Post operative IOP spike following Trabeculectomy combined with phacoemulsification and Foldable IOL Implantation.
- Relationship of Intraocular Pressure to Postural Change in Southern Indian Patients with and without Glaucoma
- Factors Associated with Patients' Adherence with Anti-glaucoma Therapy in South India
- Awareness of glaucoma in an urban and rural population in Puducherry, South India.
- Safety and efficacy of manual small incision cataract surgery for phacolytic glaucoma
- Self-Reported Barriers and Strategies to Better Follow-up among Glaucoma Patients in South India
- Consensual Ophthalmotonic Reaction (COR) following Trabeculectomy / Phacotrabeculectomy
- Macular thickness variability in primary open angle glaucoma patients using optical coherence tomography
- Comparative study of the success rate of laser DCR with or without use of Aluminum foil coated protectors for middle turbinate
- Dacryocystorhinostomy: A comparison of external versus transcanalicular endolaser DCR
- National Retinoblastoma Registry
- How valid (sensitive and specific) is teacher's screening for refractive errors as compared to that done by trained refractionists?
- Screening for 1000 children in Blind schools (One year Project)
- Optic atrophy in children in South India
- Clinical profile with Ocular and Oculocutaneous Albinism at a tertiary care centre

## CLINICAL RESEARCH

The major clinical research studies underway are:

- The Madurai Study of Low Vision Children in Blind Schools
- Posurdex–Intermediate and Posterior Uveitis Study
- HLA-DR determination of Vogt-Koyanagi-Harada syndrome and Sympathetic Ophthalmia in South Indian patients
- A Double –masked, Placebo-controlled, multicentric, parallel group, dose ranging study to assess the efficacy and safety of LX211 as therapy in subjects with non-infectious intermediate, anterior and intermediate, posterior or pan-uveitis
- To compare the long term effects of Timolol 0.5% and Latanoprost on central Corneal Thickness

- Role of patient counselling on visual experiences in patient's undergone phacoemulsification under topical anaesthesia.
- Evaluation of a capsule cleaning device on lens epithelial cells in rabbits
- Comparative study of surgical and visual outcome in coaxial phacoemulsification, bimanual phacoemulsification and Microincision coaxial phacoemulsification using alcon infiniti (Ozil) vision system
- An evaluation of the safety and efficacy of moxifloxacin AF ophthalmic solution 0.5% for the treatment of bacterial conjunctivitis in India
- A study to evaluate the clinical and microbial efficacy of 0.6% ISV 403 compared to VIGAMOX in the treatment of bacterial conjunctivitis
- Steroids for Corneal Ulcers Trial (SCUT)
- Mycotic Ulcer Treatment Trial (MUTT)

#### Aurolab Clinical Trials

- Posterior Capsular Opacification after implantation of Square edge PMMA, round edge PMMA and Acrysof intraocular lenses: A Prospective, Randomised Comparative Trial
- Clinical evaluation of Hydrophobic Foldable IOLs
- Safety and Effectiveness of Yellow Intraocular Lenses
- Comparative study of indigenous Green Laser with already available Green Laser
- Evaluation of Auro-tube in Conjunctivodacryocystorhinostomy (CDCR)
- Effect of Square Edge PMMA IOL in Preventing Lens Epithelial Cell Migration in Paediatric Cataract Surgery: A Randomised Controlled Trial
- Randomised controlled trial of Aurolas 532-I-1 with already available green laser in Proliferative Diabetic Retinopathy

#### PH.D AWARDED

MR. G. NEETHIRAJAN, April 2007 - Molecular Analysis of PAX6 gene in Indian aniridic patients.

MS. GOWRIPRIYA CHIDAMBARANATHAN, August 2007 – Aetiology and Pathogenic Mechanism of Uveitis associated with Leptospirosis.

MS. J. KANAGAVALLI, November 2007 - Studies on Myocilin (TIGR/MYOC) gene mutations and Myocilin protein in Indian patients with Primary Open Angle Glaucoma.

MS. ARPITHA, February 2008 - Identification, Characterisation, Enrichment and invitro maintenance of Human Corneal Epithelial Stem Cells”.

#### Overseas Associateship Award

DR. P. SUNDARESAN, Senior Scientist was selected by Ministry of Science and Technology, Department of Biotechnology, Government of India for the Overseas Associateship award. He went to Molecular Ophthalmic Research Laboratory, University of Iowa, Iowa city, Iowa, USA for three months (April to June 2007) and worked with Dr. Edwin Stone on Molecular genetics on Leber Congenital Amaurosis. He visited several institutes, attended ARVO 2007 meeting and met several eminent senior researchers and ophthalmologists.

#### A RARE HONOUR

Dr. G. Venkataswamy Eye Research Institute is privileged to have Dr. A.P.J. Abdul Kalam, Professor of Technology & Technical Education, Anna University, Chennai, formerly the Honorable President of India as the Visiting Professor from July 30, 2007.

*Prof. Astrid Fletcher with Prof. Muthukkaruppan, Dr. P. Namperumalsamy, Dr. R. D. Ravindran and Dr. Sundaresan for the INDEYE collaborative project between AMRF and London School of Hygiene and Tropical Medicine.*





## AUROLAB

2007-2008

### **R** EACHING OUT WITH RENEWED COMMITMENT

In the financial year 2007-2008, Aurolab renewed its commitment to aiding the elimination of needless blindness, with the opening of an elegant new state-of-the-art manufacturing facility. On September 30, 2007 Dr. Allen Foster, President, Christian Blind Mission inaugurated the building during a special ceremony attended by hundreds of Aurolab partners and well-wishers from across the country and around the world. The new facility is located in a sprawling campus amidst the lush grounds of Aurofarm that sets the atmosphere for dedicated work, while the beautiful design of the building inspires employees to do even better what Aurolab has been doing for the past sixteen years.

Aurolab has commenced operations in the new facility and each division is expanding its capacity and upgrading its technology to take advantage of the available space. Various audits have been conducted and completed successfully. All divisions of Aurolab are gearing up to meet the growing expectations of the organisation. Each division is working on developing new high quality products that will be made available at affordable prices. Aurolab's Hydrophobic Acrylic Lens, Aurovue, has been well-received in the market, and Aurolab now looks to build on this position of strength and add more value to the product. Its suture needle division is in the process of upgrading its technology to manufacture absorbable sutures, while the Pharmaceutical division has launched its Sodium

*Dr. Allen Foster unveiling the inaugural plaque at the inaugural ceremony of Aurolab's new facility*



hyaluronate, “Aurogel” to enable better control and safety during Phacoemulsification surgeries. Aurolab’s instruments division has improved the quality of the bipolar cautery significantly and is currently working on new products like Monopolar coagulator, Digital vision testing etc., and its blades division has been improving manufacturing process to deliver consistent high quality results.

### **INAUGURATION OF AUROLAB'S NEW FACILITY**

Aurolab’s new facility was inaugurated at Veerapanchan, in the beautiful Aurolfarm complex, by Dr. Allen Foster, President, Christian Blind Mission, on September 30, 2007.

Felicitations were offered by David Green, Consultant, US; Suzanne S. Gilbert, Director, Centre for Innovation in Eye Care, Seva Foundation; Dr. R. Pararajasegaram, Consultant, World Health Organisation, Geneva; Karumuttu T. Kannan, Managing Director, Thiagarajar Mills, Madurai and Mr. S. Rethinavelu, President, Tamil Nadu Chamber of Commerce and Industry.

Praising the efforts of the founder, they said at a time when everyone exercised more caution than optimism while considering introduction of intraocular lens (IOL) in developing countries, it was Dr. Venkataswamy’s proactive approach which facilitated introduction of IOL in the country. Commending the services rendered to society by AECS they mentioned that Aravind had played a major role in etching the name of the city in the world map.

### **FACTS ON THE NEW FACILITY**

Since 1996 Aurolab was functioning in LAICO Building. Aurolab felt the need for more space for growth and expansion. Recognising this, the foundation stone for the new facility was laid by our founder Chairman Dr.G.Venkataswamy on August 21, 2005.

The factory is built up with 110,000 sq.ft. operating area including the 20000 sq.ft of clean-rooms. The new facility is constructed as per the international regulations like Schedule M, USFDA and UK MHRA.

The manufacturing area is divided as Classified area and Unclassified area. All critical operations like filling, packing etc are to be carried out in the classified area. Classified areas are featured with PU painted walls, self leveling epoxy floors, jointless Aluminium false ceiling, metal doors, interlocks, AHUs, coved corners, GMP drains etc.

The facility includes dedicated state-of-the-art microbiology lab, Water purification system, Wet Lab, Instrument lab, Utility block etc. It is well equipped to handle all microbial tests and shelf life studies. A comprehensive water purification system consisting Reverse Osmosis, Electro Deionization and Ultra filtration has been installed to generate and distribute the pharmaceutical grade waters.

As the manufacturing arm of the Aravind Eye Care System, Aurolab’s unique contribution to eye care service delivery in the developing world is tremendous and it is now better poised than ever to serve a growing number of people in need.

*Aurolab staff quarters by the picturesque quarry lake. The manufacturing facility is seen at a distance on the far right*





### AUROLAB STAFF QUARTERS

Following the production operations in the new facility, the aurolab production staff moved to their own quarters on February 24, 2008. Situated in the Aurolab, just as the manufacturing facility, the quarters are spacious with a beautiful quarry lake and garden all around.

### NEW PRODUCTS

*Retieye, August 2007*

Retieye is an eye ball model designed for ophthalmologists to practice indirect ophthalmoscopy and photocoagulation. This eye ball model with replaceable retinal films quickens the learning curve for the practitioner. Designed and developed with valuable guidance from Aravind Retina specialists, the product has found good acceptance with the retinal fraternity in India and abroad.

*Aurogel, April 2008*

Aurolab's Pharmaceutical division launched its Sodium Hyaluronate "Aurogel". This product aids

the doctor by providing excellent space in the anterior chamber and protects the corneal endothelium cells during phacoemulsification. Unlike other such products available in the market today, this product does not require refrigeration.

### PRODUCTS TO BE LAUNCHED

**ASPHERIC IOL:** In this type of lens either one or both surfaces will be aspherical, conic or modified conic in shape. This lens will help improve the quality of vision for patients with pupil size greater than 3.0 mm.

**ABSORBABLE SUTURES:** Aurolab plans to supply PGA, a braided synthetic absorbable multifilament made of polyglycolic acid and coated with polycaprolactone and calcium stearates, which render the thread extremely smooth, soft and knot safe. Aurolab will supply these sutures in various sizes to be used for different surgeries.

**FRONTALIS SUSPENSION SET:** This is used for frontalis suspension in patients with significant ptosis and poor levator function. Since the product is very expensive in the market, Aurolab plans to produce this to make it affordable to all.

**OCUBLUE PLUS:** This dye has the optimum qualities of superior staining ILM at lower concentrations as compared to the more expensive and toxic alternatives like ICG. Aurolab plans to produce this dye which makes the delicate manoeuvre of ILM peeling much safer and efficient, with superior functional outcomes for patients.



## MAJOR OPHTHALMOLOGY CONFERENCES AND TRADE FAIRS

Aurolab actively participated in trade exhibitions at the following conferences to promote Aurolab products. The participation on various occasions provided Aurolab members an opportunity to meet the customers and reinforce, update on the products. Apart from national ophthalmic meets and forums, Aurolab participated in the following international meets in 2007-08.

- Middle East African Council of Ophthalmology (MEACO) Conference at Dubai, March 29 - April 1
- XXV Congress Of European Society for Cataract and Refractive Surgeons at Stockholm, Sweden, September 8-12, 2007
- Medical Technology Exposition (MEDTEC) at Galway, Ireland, September 19-20
- 111th Annual Meeting of the American Academy of Ophthalmology at New Orleans, Louisiana, November 10-13, 2007

### MEDICA TRADE FAIR

Dusseldorf, Germany, November 15-17, 2007

This is the hub of medical trade and the visit to this fair helped Aurolab to identify potential customers and suppliers all over the world and certainly it would increase their exposure towards EU nations.

### AUDITS

When Aurolab shifted its operations to the new manufacturing premises at Veerapanchan and commenced production, the new facility audits were conducted by certification bodies. The CE certification audit was conducted on February 04-05, 2008 by TUV Rheinland, Germany. Since intraocular lens has been notified as drugs in India recently, the facility audit was conducted by Drug Control Department, Chennai on February 18, 2008.

The ISO certification audit was conducted by UL India Pvt. Ltd., Bangalore.

All audits were completed successfully and the auditors were very satisfied with the processes. The certificates with revised address and including new products are to be received soon.

## OTHER NEWS AND EVENTS

Aurolab gets CE Mark for more products like Polyester, Polypropylene Sutures and CTR CE, an abbreviation of Conformité Européenne, is a mandatory European marking for certain product groups to indicate conformity with the essential health and safety requirements set out in European Directives.

Aurolab is the first Indian Ophthalmic products manufacturer to get CE mark for intraocular lenses in as early as 1999. Apart from the major products from IOL, Sutures and Pharma that are already CE certified, a list of new and important products have also been added recently. Aurolab's Auroring - Modified Capsular Tension Rings, Aurobond - Polyester Suture Needles, Aurolene - Polypropylene Suture needles and Capsular Tension Segment have been approved for CE mark. A few models of hydrophilic foldable lenses have also been CE marked.

### TRAINING ON FAILURE MODE AND EFFECT ANALYSIS (FMEA)

Aurolab conducted FMEA Training Program on July 15, 2007. All QA Managers, Product Development Engineers and other relevant staff who are responsible to process and design developments participated in this training program. It was a very useful training program to implement risk management process in line with standard requirements. Mr. Sasikumar from Fouryes TQM Consultants gave training about FMEA. It is a Chennai based company and has given training to about 500 companies in all over India.

### AUROLAB DAY CELEBRATIONS

For the first time, on their own, Aurolab celebrated its anniversary on January 23, 2008. All cadre of Aurolab's participated enthusiastically. Mr. Vishnu Prasad, Manager- International Marketing welcomed the gathering. Mr. P. Balakrishnan, Managing Director presented the Annual report of Aurolab. The various department staff displayed the achievements and aspirations of their division in unique ways that included skits, singing and dancing apart from slide presentations. Mr. R. D. Sriram, Director – Operations spoke on the future plans of Aurolab followed by address by Dr. G. Natchiar, Vice-Chairman of Aravind Eye Care System.

## ACCOLADES

### BHEESHMA AWARD

The Bheeshma Award was conferred upon Dr. P. Namperumalsamy for his contribution in the field of medicine on April 25, 2007 by The Ashram school, Chennai at their 15th Annual Day Function at Kamaraj Memorial Hall, Chennai.

### ANTÓNIO CHAMPALIMAUD VISION AWARD FOR ARAVIND EYE CARE SYSTEM

The Champalimaud Foundation presented the inaugural Antonio Champalimaud Vision Award to Aravind Eye Care System at a special ceremony held in Lisbon, Portugal. Dr. P. Namperumalsamy, Chairman, Aravind Eye Care System received the award.

The award carries with it 1 million Euros. The ceremony was held in the presence of the President of the Portuguese Republic, Aníbal Cavaco Silva. The award ceremony featured speeches from Leonor Beleza, President of the Champalimaud Foundation, Professor Alfred Sommer, President of the Jury, Dr. P. Namperumalsamy, Chairman, Aravind Eye Care System, and Dr. Aníbal Cavaco Silva, President of the Portuguese Republic.

*Dr. P. Namperumalsamy receiving the Antonio Champalimaud Vision Award in Lisbon, Portugal*



### A RARE DISTINCTION

Dr. R. Ramakrishnan, CMO of Aravind-Tirunelveli has been accorded a rare distinction of being invited by Dr. George Spaeth to be a distinguished member of the International Fellow of Spaeth Society (IFSS). Dr. Ramakrishnan has been trained by Dr George L Spaeth at Wills Eye Hospital in 1989.

### FARM FEST-2008

Aravind-Puducherry participated in the XXVII Flower, Vegetable and Fruit show, Farm fest-2008, conducted by the Department of Agriculture, Government of Puducherry, and won the First Prize for the Ornamental Garden and Herbal Garden and Second Prize for the Kitchen Garden.

### HIGHEST ROTARY AWARD

Rotary movement has conferred its prestigious “For the Sake of Honor Award” to Dr. M. Srinivasan, Chief of Cornea clinic, Aravind Eye Hospital, on December 7, 2007. In a rare gesture, and in recognition of the eye care services being rendered by Aravind, the office bearers and members of Rotary club of Madurai West came to Aravind to confer the award on Dr. M. Srinivasan. Mr. Rajadurai, Governor, Rotary International District-3000, conferred the award.

*Dr. M. Srinivasan receives the 'For the Sake of Honour' Award from the Rotary Movement*



### **'ADMINISTRATOR OF THE YEAR' AWARD**

Mr. RD. Thulasiraj, Executive Director, LAICO has been chosen as the 'Administrator of the Year'. The awards were introduced last year by GE Healthcare in association with Info India to honour individuals and institutions for their outstanding contribution to healthcare. Mr. Sanil Joseph, Faculty, LAICO received the award on behalf of Mr. R.D. Thulasiraj.

### **YOUNG INVESTIGATOR AWARD – ASIA – ARVO**

The Young Investigator Award in Basic Science was given to Ms. Murugeswari for the best poster presentation at the ASIA-ARVO 2007 meeting conducted at Singapore from March 2-5.

### **BEST POSTER AWARDS**

Aravind Oculoplasty specialists won three awards at the Joint Meeting of the Oculoplastics Association of India & Asia Pacific Society of Ophthalmic Plastic and Reconstructive Surgery held at Hyderabad on December 14-16, 2007.



*Dr. Shivayogi Kusagur receiving the Best Poster Award in lacrimal category*

Best Poster award in Lacrimal Category was won by Dr. Shivayogi Kusagur for his poster on for the poster on Dacryocystorhinostomy: A comparison of External Versus Transcanalicular endolaser.

Best Photograph in Imaging Photography Category was won by Dr. Usha Kim for the 'Double Globe?' - CT scan photograph.

Best Poster award in orbit category was won by Dr. Maneksha Velu, for his poster on Ocular Adnexal lymphoma: A Clinic Histopathological analysis in a tertiary eye care centre.

*Ms. Murugeswari, received the Young Investigator Award in Basic Science for the best poster presentation at the ASIA-ARVO 2007 meeting, at Singapore from March 2-5, 2007.*



## **PARTNERS IN SERVICE**

### **FOR SERVICE DELIVERY, TRAINING AND OTHER DEVELOPMENTAL ACTIVITIES**

- Acumen Fund, USA
- Adopt-a-Business, UK
- Alcon Laboratories Inc, USA
- Canadian International Development Agency, Canada
- Carl Zeiss Meditec, Germany
- CBM International, Germany
- Combat Blindness Foundation, USA
- Essilor, India
- Friends of Aravind, USA
- Google Foundation, USA
- Indian Institute of Management, Bangalore, India
- Indian Space Research Organisation, India
- International Federation of Eye Banks, USA
- Indian Overseas Bank, India
- International Agency for Prevention of Blindness
- International Eye Foundation, USA
- Lavelle Fund for the Blind, USA
- Lions Clubs International Foundation, USA
- ORBIS International, USA
- Pegasus Institute for Excellence, India
- Project Impact, USA
- Rotary International, USA
- Right to Sight, Ireland
- Seva Service Society, Canada
- Seva Foundation, USA
- Sight Savers International, UK
- State Bank of India, Madurai
- Sun Foundation, Chennai
- TIFAC-CORE, Department of Science & Technology, Government of India
- Topcon, Japan
- University of Michigan, USA
- VISION 2020 – The Right to Sight, India
- W2 Consulting, UK
- World Diabetes Foundation, Denmark
- University of California, Berkeley, Dept of Computer Science
- Fred Hollows Foundation, Australia.

### **FOR RESEARCH**

- Allergan Pharmaceuticals, USA
- Francis I.Proctor Foundn. for Research in Ophthalmology, UCSF, USA
- Indian Council of Medical Research, India
- International Centre of Eye Health, UK
- Indian Institute of Technology, Chennai
- London School of Hygiene & Tropical Medicine, UK
- Madurai Kamaraj University, India
- National Eye Institute, USA
- Royal Tropical Institute, Netherlands
- University of Iowa, USA
- World Health Organization, Switzerland
- Singapore National Eye Centre, Singapore
- Tamil Nadu Dr. M.G.R. Medical University, Chennai, India
- Defence Research & Development Organisation, Government of India
- Department of Biotechnology, Government of India
- Department of Science & Technology, Government of India
- University of Wisconsin, Madison
- National Institute of Nutrition, Hyderabad.

# ARAVIND EYE CARE SYSTEM

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FRCOPHTH.

#### Mid Level Ophthalmic Personnel

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### OUTREACH

R. MEENAKSHI SUNDARAM MHM

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### **Assistant Professor**

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## **MICROBIOLOGIST**

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## **ANAESTHETIST**

DR. A. RAVICHANDAR MD., DA

## **FREE HOSPITAL**

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## **PHYSICIAN**

DR. BANUSHREE MD

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PROF. V. SRINIVASAN MA., MS. (OREGON, USA)

Professor - optometry

PROF. N. SUKUMARAN B.SC., DOR.,

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Professor of neurosurgery

DR. P. SUBBURAM MS., MCH

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B. RADHA BAI

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ALEES MARY, R.N.R.M

Staff - Theatre

ALIKUTTY VARGESE, R.N.R.M

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Manager - Office

K.S. KANDASAMY B.A

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RAJKUMAR M.A., B.M.R.SC

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P. GANESAN

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Chief Medical Officer / Professor

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### **Assistant Professors**

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DR. ANKIT AVASTHI DNB

DR. SACHIN BODHALE MS

### **Tutor**

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# ARAVIND EYE HOSPITALS

& POSTGRADUATE INSTITUTE OF OPHTHALMOLOGY

## Aravind-Madurai

1, Anna Nagar, Madurai 625 020, Tamilnadu, India. Phone: (0452) 435 6100 . Fax: 91-452-253 0984

## Aravind-Theni

Periyakulam Road, Theni 626 531, Tamilnadu, India. Phone: (04546) 252 658 / 253 258

## Aravind-Tirunelveli

S.N. High Road, Tirunelveli Jn. 627 001, Tamilnadu, India. Phone: (0462) 233 7103 . Fax: 91-462-233 1633

## Aravind-Coimbatore

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## Aravind-Puducherry

Cuddalore Main Road, Thavalakuppam, Puducherry 605 007, India. Phone: (0413) 261 9100 . Fax: 91-413-261 8848

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## LAICO - LIONS ARAVIND INSTITUTE OF COMMUNITY OPHTHALMOLOGY

72, Kuruvikaran Sakai, Gandhinagar, Madurai 625 020, Tamilnadu, India. Phone: (0452) 435 6500 . Fax: 91-452-253 0984

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## ROTARY - ARAVIND INTERNATIONAL EYE BANK

MEMBER INTERNATIONAL FEDERATION OF EYE BANKS

1, Anna Nagar, Madurai 625 020, Tamilnadu, India. Phone: (0452) 435 6100 . Fax: 91-452-253 0984

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## DR. G. VENKATASWAMY EYE RESEARCH INSTITUTE

ARAVIND MEDICAL RESEARCH FOUNDATION

1, Anna Nagar, Madurai 625 020, Tamilnadu, India. Phone: (0452) 435 6100 . Fax: 91-452-253 0984

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## AUROLAB

1, Sivagangai Road, Veerapanjan, Madurai 625 020, Tamilnadu, India. Phone: (0452) 244 6100 . Fax: 91-452-244 6200

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