

# Aravind Eye Care System

## ACTIVITY REPORT 2005





*A genius heightened in his body's cells  
That knew the meaning of his fate-hedged works  
Akin to the march of unaccomplished Powers  
Beyond life's arc in spirit's immensities.  
Apart he lived in his mind's solitude,  
A demi-god shaping the lives of men:  
One soul's ambition lifted up the race;  
A Power worked but none knew whence it came.  
The universal strengths were linked with his;  
Filling earth's smallness with their boundless breadths,  
He drew the energies that transmute an age.  
Immeasurable by the common look,  
He made great dreams a mould for coming things  
And cast his deeds like bronze to front the years.  
His walk through Time outstripped the human stride.  
Lonely his days and splendid like the sun's.*

- Sri Aurobindo 'Savitri' Book One, Canto Three

## Aravind Eye Hospitals

Examine over 1.7 million patients and operate on over 250,000 annually  
– World's largest provider of eye care services



### Aravind Vision Centres & Community Eye Clinics



## Aravind Managed Eye Hospitals

Management Contract Approach  
– managing hospitals in underserved areas in India and other developing countries





### COMMUNITY OUTREACH

Over 430,000 patients examined in the community and over 100,000 operated annually



### AUROLAB

World-class ophthalmic supplies at low cost – making eye care affordable: reaching over 120 countries and providing over 5% of the global cataract surgical supplies



### LAICO

Premier institute promoting worldwide management in eye care through training and capacity building in over 200 eye hospitals



### RESEARCH

Ranging from Stem Cells to understanding barriers to access – focus on evidence for action



### EDUCATION & TRAINING

25 ophthalmologists, 30 sub-specialists in ophthalmology, over 200 ophthalmic assistants produced annually – a leading ophthalmic training facility



### EYE BANK

Collection, evaluation, preservation and distribution of corneas  
Over 2000 eye balls were collected in 2005  
Offers training in Eye Banking and Corneal Transplantation



### TELE-OPHTHALMOLOGY

Bridges the gap between specialists and patients through IT enabled Village Vision Centres  
V-SAT equipped Mobile Van  
Geared to impart education and training in eye care with a global reach



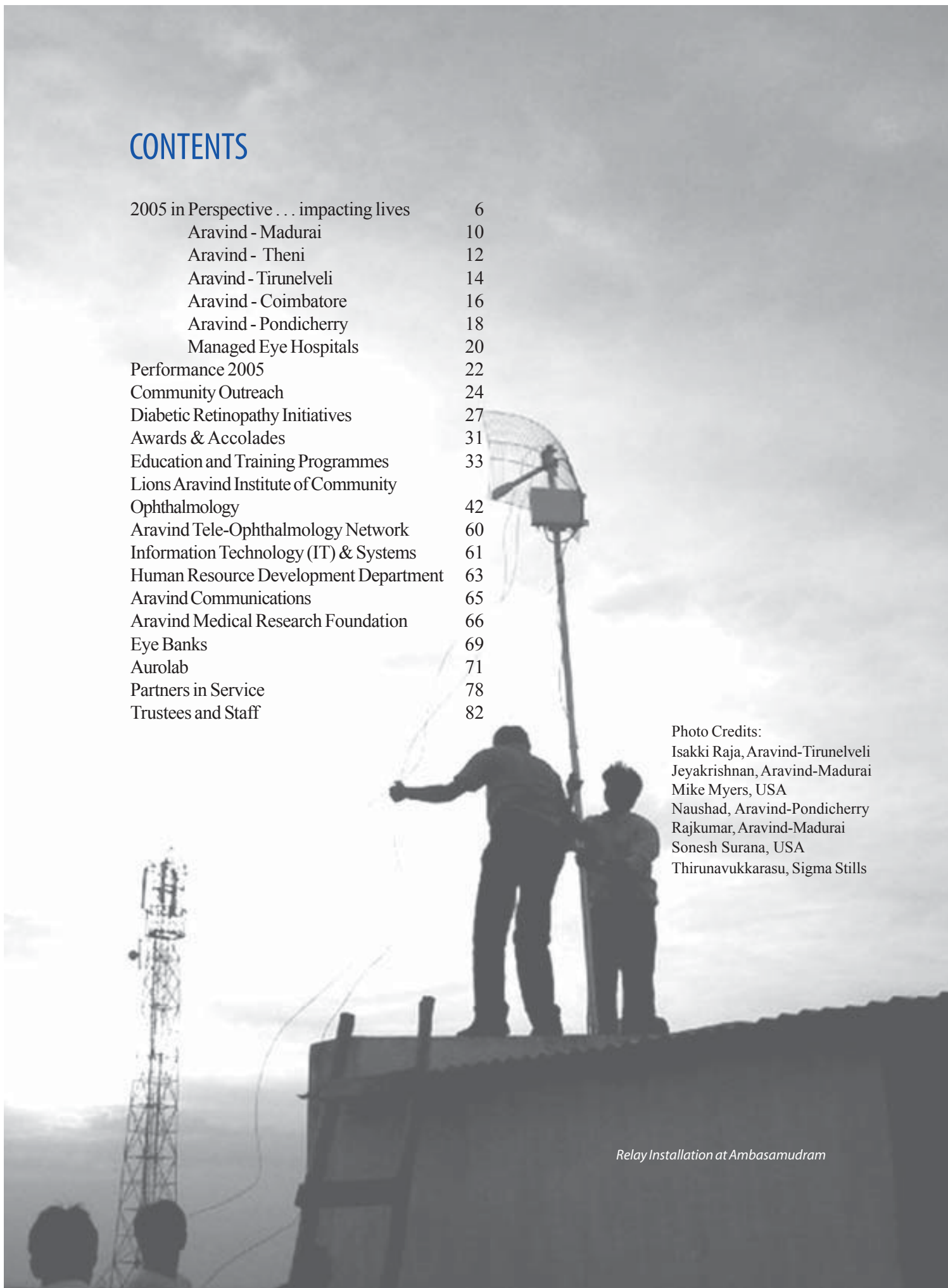
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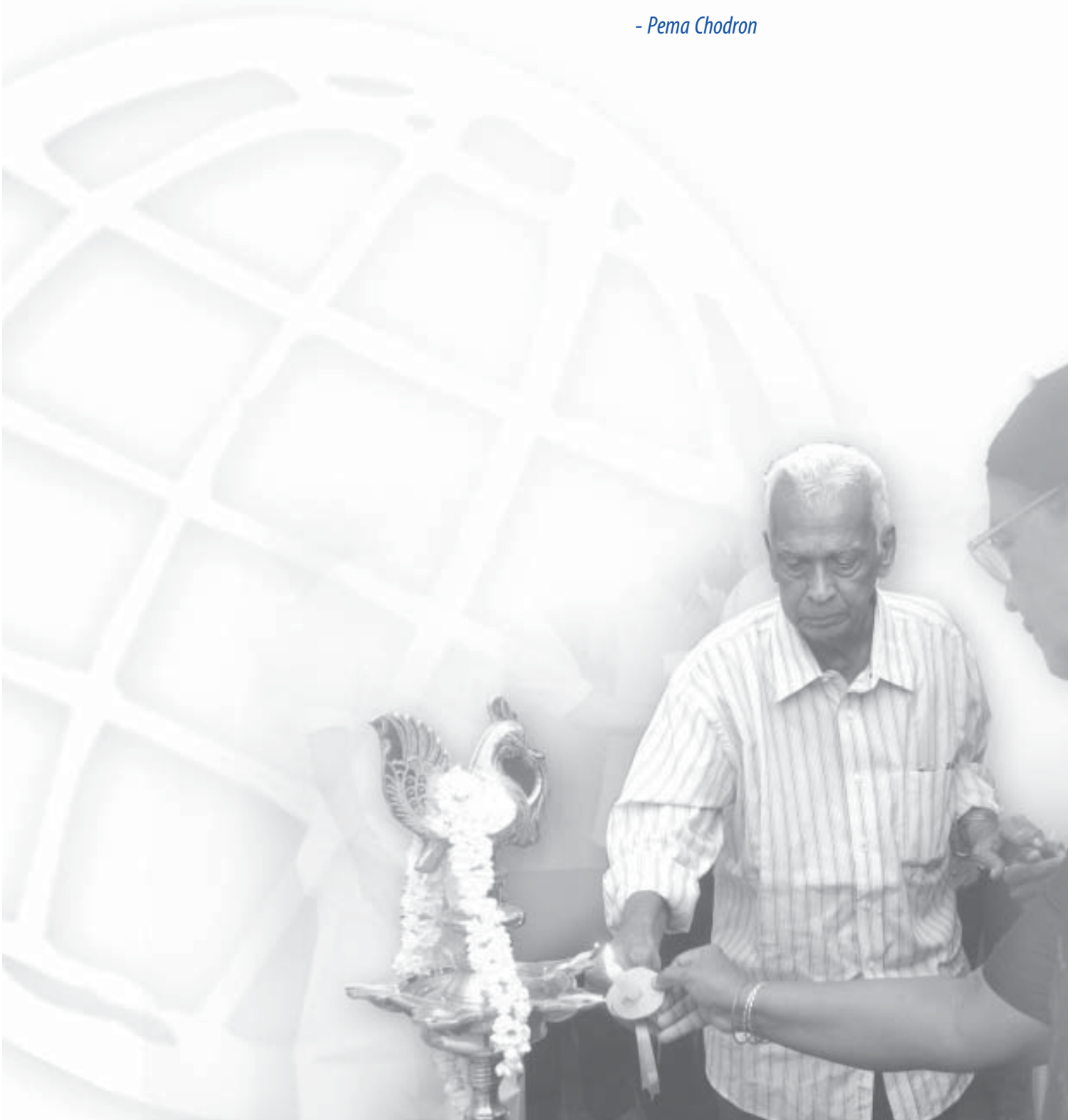
Isakki Raja, Aravind-Tirunelveli  
Jeyakrishnan, Aravind-Madurai  
Mike Myers, USA  
Naushad, Aravind-Pondicherry  
Rajkumar, Aravind-Madurai  
Sonesh Surana, USA  
Thirunavukkarasu, Sigma Stills

*Relay Installation at Ambasamudram*



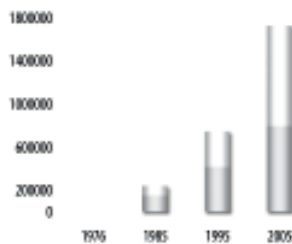
*True compassion does not come from wanting to help out those less fortune than ourselves but from realising our kinship with all beings.*

*- Pema Chodron*

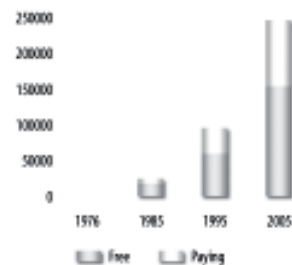


## 2005 IN PERSPECTIVE . . . . IMPACTING LIVES

OUTPATIENT VISITS (1976-2005)



SURGERIES (1976-2005)



At the inauguration of the Vision Centre at Bodinaickanur

As individuals and institutions the ultimate purpose is to contribute in positive ways to human welfare. There are different ways to do this, and at Aravind the chosen way is to impact people's lives by providing affordable, high quality eye care. Having been working in this field for thirty years, Aravind as an organisation feels responsible; not just for doing good work but also for ensuring to really make a difference where it matters. This approach has led the organisation to several new projects, some of them directly providing services and others with a more indirect impact.

In 2005, across all Aravind Eye Hospitals, 1,721,898 outpatient visits were handled, while 247,235 surgical and laser procedures were performed.

### Sustainable Eye Care Close to Home . . . More Vision Centres and Community Eye Clinics

Eye camps have been productive as a strategy for bringing in patients, and they account for 437,224 patients examined and 97,292 patients operated on in 2005. But when the recent studies showed the limited impact of these camps in reaching all those in need, Aravind decided to deploy additional strategies to deepen the reach into the community in a sustainable way. This decision led to the expansion of the network of Vision Centres with the inauguration of the third centre in Bodinaickanur and two more being planned at Chinnamanur and Periyakulam. The learning from the current network is laying the foundation for rapidly scaling up the network of Vision Centres to over 50 in the next few years. As an extension of the same strategy, the second Community Eye Clinic was inaugurated at Thirumangalam near Madurai. These centres will actively reach out to their communities and over a period of time ensure that everyone in need of eye care is reached and served in a sustainable manner.

### Building up Capacities . . .

For over a decade, Lions Aravind Institute of Community Ophthalmology (LAICO) has engaged in the process of capacity building. Till date it has partnered with 200 eye hospitals spread across India and other countries in the continents of Asia, Africa and South America. Site visits and strategic planning activities to strengthen the capacity of other eye care organisations were undertaken throughout the year covering a total of 25 hospitals of which 22 were from India and the others were from China. The year-end saw a new understanding forged with Prof. Mohammad Yunus of Grameen Bank and Prof. Mohammad Ibrahim of CMES (Centre for Mass Education in Science) to help establish Eye Hospitals and Vision Centres in Bangladesh.



*Dr. Mohammad Ibrahim,  
Dr.P.Balakrishnan, Prof.Mohammad  
Yunus and Mr. Nagarajan*



*Dr. G. Venkataswamy with  
Mr. Rahul Gandhi at the Vision Building  
Workshop*

*Dr. S. Aravind, Mr. G. Srinivasan,  
Mr.R.D.Thulasiraj, Dr. G. Natchiar, and  
Dr.P.Namperumalsamy with Mrs. Sonia  
Gandhi, Mr. Rahul Gandhi and the Amethi  
team at the inauguration of Indira Gandhi  
Eye Hospital and Research Centre*

### **Towards a Network of 100 Eye Hospitals**

While the Capacity Building process has been very effective resulting in doubling service levels within a year or two, Aravind realised that there are still several underserved areas lacking eye hospitals to engage in such a process. Aravind also recognised that in some of these areas, there were strong local partners willing and wanting to take up some humanitarian work, but who did not necessarily have the organisational capacity to deliver eye care. In these situations Aravind saw an opportunity to impact lives by guiding the local partner in the process of setting up an Eye Hospital and directly managing them to jointly serve many more people. To make this opportunity operational, Aravind has set for itself the goal of becoming a network of 100 eye hospitals. It also aims to grow in capacity enough to be able to directly reach and restore vision to one million patients each year. The organisation hopes to reach these goals within the next 10 years. Though it is an ambitious target a good headway has already been made.

### **The First Undertaking**

Munshiganj is a village near the rural town of Amethi in Uttar Pradesh. It is an area with no eye care facilities within a radius of 65km. However it does have a good general hospital under the leadership of Mr. Rahul Gandhi. His commitment to improving the lives of the people in that area led to collaboration between Aravind Eye Care System and the Rajiv Gandhi Charitable Trust. Once an agreement to establish the Indira Gandhi Eye Hospital and Research Centre was reached, the selection of staff, their training, remodeling the facility and equipping the hospital were all complete within a span of 7 months. Mrs. Sonia Gandhi inaugurated the eye hospital on the 4th of December. Ever since the day of opening, the hospital has seen a steady flow of patients and is already approaching its capacity.

### **Collaborative Initiatives**

Over the years, eye care became synonymous with cataract services, an understandable strategy, as cataract is the leading cause of







*Dr. R. Chidambaram, Chairman, TIFAC, Dr. M. Natarajan, Scientific Advisor to Defence Minister, Lt. Gen. Yash Malhotra, Member TIFAC Gov. Council, Prof. Indiresan, Member TIFAC-CUSEC, Mr. Deepak Bhatnagar, Advisor, Mission REACH, TIFAC, Dr. P. Namperumalsamy and Dr. Shukla during Third annual TIFAC-CORE meet*



*...at the inauguration of the ALCON supported Wet lab, Aravind-Tirunelveli*



*Mr. Xavier Fontanet, Chairman and CEO, Essilor and Mr. G. Srinivasan sign an MOU to promote Optometry and Refractive Training and Services*

*AMRF Team with the Singapore National Eye Centre team at the signing of the MOU*



blindness the world over. Building systems to address cataract has also built the foundation to address other eye conditions that until recently were neglected. In order to proactively address this, during the year several workshops and training activities were conducted to help other eye hospitals to introduce much needed speciality eye care services. Capacity building activities to introduce paediatric eye care was carried out in collaboration with ORBIS International. Sight Savers collaborated with Aravind to support their partner hospitals to acquire the capacity to manage Diabetic Retinopathy. Aravind continued to receive support from the World Diabetes Foundation (WDF) and TIFAC-CORE (Technology Information, Forecasting & Assessment Council for developing Centres of Relevance and Excellence - a Government of India initiative) to develop the service delivery model and training modules in the area of Diabetic Retinopathy. A new WDF project was launched at Aravind-Pondicherry, to provide Diabetic Retinopathy services to the people of Pondicherry and adjoining districts.

#### **... for Patient Care**

Industry collaboration reached new heights in 2005 with the inauguration of an Alcon-supported Cataract Surgery wet lab at Aravind-Tirunelveli; the signing of a master agreement with Essilor to promote Optometry and Refraction training and services; support from Topcon for the development of fundus image grading software; continuing support from Zeiss for the training activities of the Aravind-Zeiss Glaucoma Centre of Excellence at Tirunelveli; and support from State Bank of India and Indian Overseas Bank for advanced diagnostic equipment to enhance patient care.

#### **... for Research**

The basic research at Aravind involving genetics, stem cells, biochemistry, etc., has moved to a higher level of growth. Several new research grants have been awarded by the Department of Science & Technology and ICMR. In addition to this, a Memorandum Of Understanding was signed with Singapore National Eye Centre for collaborative research. In order to accommodate the current growth and to provide for new activities, plans are on the drawing board for a new research building.

### In line with Online Development

Aravind was quick to adopt Information Technology within its various systems. Patient care management has been online for over 15 years now and this has improved Aravind's efficiency exponentially. Recognising the role that IT can play in reducing needless blindness, Aravind initiated, with support from CBM, the development of an Integrated Hospital Management Software, which can work in most hospital settings and not just in Aravind. This was extensively tested within the Aravind system and since then there has been a great deal of interest from other eye hospitals in adopting this software. In response to this a team was created to customise the software, install it and train new users. It has now been implemented in 15 eye hospitals across India, Bangladesh and Tanzania.

### Honors Conferred

Dr. G. Venkataswamy was honored by the Institute for Health and Healing, California Pacific Medical Center, in recognition of his contribution to Pioneers in the Art, Science and Soul of Healing.

To be rated as one among the 'Top Fifty Opinion Leaders', is one of the greatest honors conferred on world leaders in ophthalmology by the ophthalmic fraternity. This year Dr. M. Srinivasan, Director, Aravind Eye Hospitals & Postgraduate Institute of Ophthalmology was given this recognition for his 'Outstanding Contribution and Leadership in the Fields of Cataract and Refractive Surgery'.

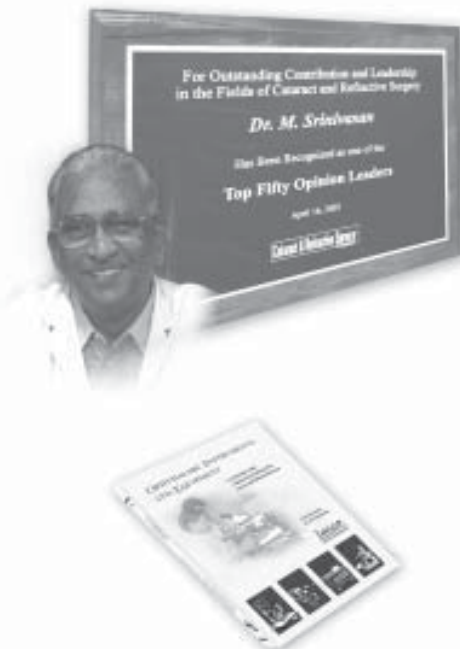
### New Developments

With the revolution in laser vision correction, patient demand has led Aravind to set up a LASIK centre at Aravind-Tirunelveli and to upgrade the one at Aravind-Madurai to a Zyoptix 100.

The Instruments Maintenance department released a video on instruments maintenance in both VHS and DVD formats on September 10th, sponsored by Sight Savers International. The video is a joint effort of the Instruments Maintenance and the Audio-Visual Department, under the guidance of Prof. V. Srinivasan.

Aurolab launched various new products in 2005. It included the microsurgical blades, a single use injector, a retinal dye, absorbable sutures and a bipolar coagulator. With support and guidance from the TIFAC - Chairman, Dr. R. Chidambaram, Aurolab has signed a Memorandum Of Understanding (MOU) with the Centre for Advanced Technology (CAT), Indore, to develop Green lasers which are widely used for photocoagulation in the treatment of Diabetic Retinopathy.

The Bhoomi pooja for Aurolab's new facility was held on April 18 in the presence of Dr. G. Venkataswamy. The construction of this new facility has already started and is expected to be completed by the end of 2006. This facility will enable Aurolab to enhance its production capacity to meet the increasing demand for its existing products and to introduce new products.



*Bhoomi pooja at Veerapanjan*



## ARAVIND-MADURAI

In the year 2005, the hospital handled 605,217 outpatient visits and performed 104,075 surgeries, conducted 368 community outreach camps, 23 diabetic retinopathy screening camps, 35 refraction camps and 17 school screening camps.

Encouraged by the success of the first community eye clinic opened at Melur last year, Aravind-Madurai inaugurated its second Community Eye Clinic at Thirumangalam on September 15. Situated twenty kilometers South-West of Madurai, this clinic will provide outpatient eye care services to a population of about 300,000.

The year also witnessed a steady rise in the number of patients coming to the free hospital as a result of various measures adopted by the free hospital staff. On June 27th, a record number of free patients were seen and admitted - 723 outpatients of whom 224 were admitted for surgery.

Started by Aurolab in August 2004, as a wing of the Orbit and Oculoplasty Centre, the state-of-the-art Ocular Prosthetic Centre offers customised near natural looking eyes, giving the patients the self esteem and confidence much needed to get on with their life at nominal fee. Just over a year old, the centre has already fit in 403 ocular prostheses.

Through the Ring of Hope Fund instituted in 2004, about seventy children and adults with ocular tumour received complete oncology work-up and treatment of cancer using local therapy, chemotherapy and radiotherapy, totally free of cost.

In 2005, individual achievements and team productivity won recognitions:

- The Diagnostic laboratory at Aravind-Madurai has received certificates of accreditation from the National Accreditation Board for Testing and Calibration Laboratories (NABL). The



*At the inauguration of the Community Eye Clinic at Thirumangalam*



*Aravind Ocular Prostheses giving the patient the much needed self esteem and confidence*

*Aravind Diagnostic Laboratory accredited by National Accreditation Board in accordance with the standard ISO/IEC 17025:1999*





*Mr. S. Jayachandran receiving the first copy of DVD from Dr. P. Balakrishnan*



*Field workers checking the distant vision for the CARE project at Melur Taluk*

accreditation is in accordance with the standard ISO/IEC 17025:1999 in the field of clinical testing in Microbiology, Serology, haematology, pathology, and biochemistry. NABL is an autonomous body under the aegis of Department of Science & Technology, Government of India, and is registered under the Societies Act.

- Dr. Vasumathy won the Rakesh Sharma Memorial Award for her work in Ocular trauma in India - Clinical microbiological profile of post traumatic endophthalmitis at a tertiary care centre in South India.

The Aravind Instruments Maintenance Department and the Aravind Audio-Visual department developed a video on instrument maintenance in both VHS and DVD formats. This was sponsored by Sight Savers International and was released on September 10. The department also developed a new attachment to mount a modern digital camera on a slit lamp to examine the fundus, creating an inexpensive tool for the routine examination of the fundus at primary eye care centres.

A one year pilot project was launched at Aravind-Madurai on May 1st as an extension of the CARE (Creating Access for Rural Eye Care Project) project at Pondicherry. This community-based initiative supported by Essilor India, seeks to influence health seeking behaviour in rural India and increase the sustainability of the outreach activities while increasing the uptake of eye care services in rural areas. The project area comprises of 28 villages within a 10km radius of the newly established Community Eye Clinic in Melur, including Melur and Kottampatti Blocks. Field workers in this area throughout the year monitor the uptake of eye care services by the community and identify patients with notable eye problems, referring them to the eye care facility to obtain proper intervention as needed. The patients utilise the Aravind Community Eye Clinic at Melur for outpatient services and Aravind-Madurai for speciality care and inpatient services.

## ARAVIND-THENI



*The project team and field workers during door to door enumeration for the Diabetic Retinopathy Epidemiology survey in Theni*



*Trained field worker testing blood sugar for the Diabetic Retinopathy Epidemiology survey in Theni*

Aravind-Theni



In the year 2005, the hospital handled 103,554 outpatient visits and performed 10,287 surgeries, conducted 91 community outreach camps, 7 diabetic retinopathy screening camps, 27 refraction camps and 10 school screening camps.

### INCREASED CAPACITY

A lot of expansion work was undertaken in 2005 at Aravind-Theni. The inpatient ward has been expanded to a capacity of 181 beds. A new wing has been added to the inpatient ward exclusively for day care patients. A new operation theatre complex was built with separate theatres for paying and free patients and a new elevator has been installed. In a large plot across the road from the hospital, spacious doctors' quarters and a guest house have been constructed.

### INDIA'S FIRST DIABETIC RETINOPATHY EPIDEMIOLOGY SURVEY

Aravind Eye Hospital at Theni started a Diabetic Retinopathy Epidemiology Survey on 13th August with support from the World Diabetes Foundation. This is the first population based epidemiology survey on the prevalence of Diabetes and Diabetic Retinopathy in India. Currently no epidemiology data is available in India. The survey data collection (door to door enumeration, diabetes screening and diabetic retinopathy screening) for all 53 clusters (rural - 24, urban - 29) is scheduled to be finished by the 10th of March, 2006.

### VISION CENTRES

In order to increase the uptake of services in the rural areas, Aravind had conceptualised setting up of primary eye care centres namely Vision Centres at a low cost, managed by a well trained ophthalmic assistant.

In 2004, two Vision Centres were set up in Ambasamudram and Andipatty. The third Vision Centre was opened in Bodinaickanur on



*Dr. Datta with Mr. Sonesh and his team from the University of California, Berkeley*

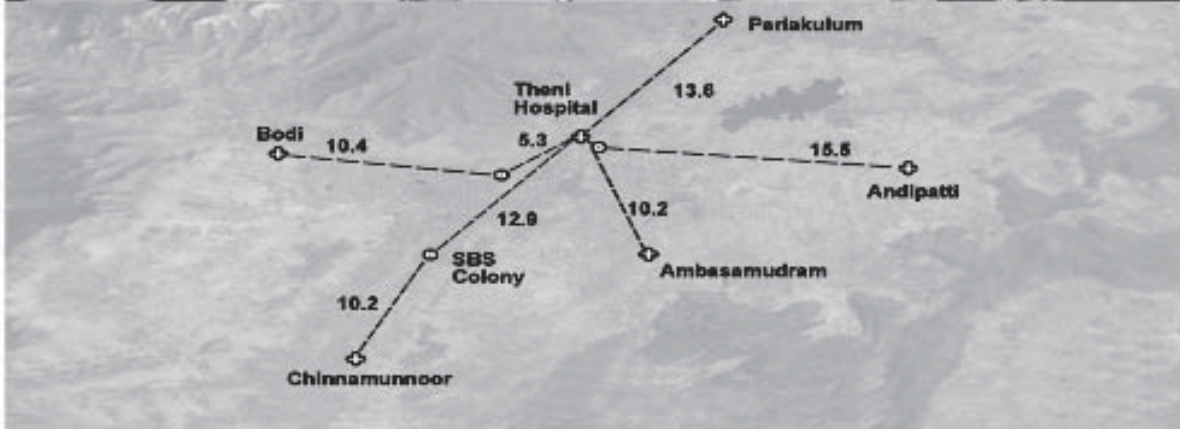


*At the inauguration of the Bodinaickanur Vision Centre*

September 14, 2005. Each of these Vision Centres covers approximately 35,000-50,000 population. Linked to Aravind-Theni through low cost tele-connectivity with adequate bandwidth facilitating face to face interactions between the patient and the ophthalmologist, these Vision Centres have become a great boon to the rural population. Persons identified with cataract, squint, diabetic retinopathy, glaucoma and other ocular problems are referred to the base hospital for further surgical and procedural management. The connectivity helps in ensuring immediate exchange of information, real-time patient consultations with the doctor, and exchange of medical images.

These centres are equipped with wireless high bandwidth connectivity. A team of graduate students led by Sonesh Surana, from the University of California at Berkeley (UCB) have helped in establishing this low-cost high-bandwidth wireless connectivity across long distances between the Aravind Eye Hospital, Theni and the Aravind Vision Centres in Ambasamudram, Andipatty and Bodinaickanur thus making telemedicine a reality where it matters.

*Ophthalmologist at Aravind Theni during a consultation session with a patient (left) at the Vision Centre at Bodinaickanur (right) through the wireless high bandwidth connectivity (picture of antenna in the middle)*



## ARAVIND-TIRUNELVELI

In the year 2005, the hospital handled 305,546 outpatient visits and performed 37,012 surgeries, conducted 250 community outreach camps, 275 diabetic retinopathy screening camps, 30 refraction camps and 12 school screening camps.

2005 brought in many new additions to Aravind-Tirunelveli. The LASIK Centre was inaugurated by District Collector Mr. Atul Anand on March 13.

The number of practicing ophthalmologists undergoing microsurgery training at Aravind-Tirunelveli has increased over the years. To aid in their training, a wet lab has been established with support from Alcon. It was inaugurated by Mr. Dilranjan Jacob, Manager of Alcon on August 29.

To cater to the increase in optical dispensing needs, Essilor set up a Surfacing Unit here.

A GDX Nerve Fibre Analyzer for glaucoma case detection by finding the thickness of nerve fibre layer and Humphrey Matrix for diagnosing glaucoma in early stages have been added to the Aravind Zeiss Centre for Excellence in Glaucoma.

An exhibition to create awareness on eye care was conducted at Jayendra Saraswathi Swamigal School for three days in February. Presence of eminent public figures such as the District Collector Mr. Atul Anand, Dr. Saraswathi, Dean of Tirunelveli Medical College drew the public including school children in large numbers to the exhibition.

Several meetings, seminars, workshops and camps were conducted in connection with special occasions such as the birthday of Swami Sivananda, World Diabetes Day, Sponsors Day and World Sight Day to cater to the eye care needs of people from Tirunelveli, Kanyakumari and Tuticorin districts and some parts of Kerala.



*District Collector Mr. Atul Anand inaugurates the LASIK centre*



*At the Wet Lab inauguration*

*At the 16th Update in Ophthalmology for Postgraduate Students*





*Eye Care Exhibition at Jayendra Swamigal School, Tirunelveli*

Training programmes were conducted for school teachers to identify children with eye problems. Special eye care seminars were conducted for groups like the Senior Citizens' Forum, and Self Help Group members.



*At the World Diabetes Day Rally*

The 16th Update in Ophthalmology for postgraduate students was held between September 18-24. A record number of 55 students from various parts of the country attended this course.

Dr. R. Ramakrishnan, Chief Medical Officer was invited as guest faculty for the Fifth International Congress of Ophthalmologists and Optometrists of China (COOC) at Shanghai between April 8-10.

Dr. R. Ramakrishnan and Dr. R. Venkatesh attended the first World Glaucoma Congress at Vienna, Austria between July 6-9 as representatives of the Glaucoma Society of India.



*Dr. R. Ramakrishnan in China*

On the individual achievements record, Dr. M. Jayahar Bharathi was conferred the Ph.D degree for his work 'A Study on the Spectrum of the Microbial Keratitis' at Aravind-Tirunelveli.



## ARAVIND-COIMBATORE

In the year 2005, the hospital handled 452,863 outpatient visits and performed 63,402 surgeries, conducted 382 comprehensive eye screening camps, 29 diabetic retinopathy screening camps, 21 refraction camps and 111 school screening camps.

This year, Aravind-Coimbatore took up the challenge of hosting two major national conferences - the 13th Annual Conference of the Vitreo Retinal Society of India and the 12th Annual Conference of the Strabismological Society of India. The hospital also hosted a CME on Glaucoma Management - GLUCONS 2005. The Aravind-Coimbatore team displayed excellent organisational skills in a well coordinated effort, making all three conferences memorable to all those who participated.


Dr. V. Narendran, Chief Medical Officer, Aravind-Coimbatore led Udhagai 2005, the 13th Annual Conference of the Vitreo Retinal Society of India in Ooty. Dr. Au Eong Kah Guan from Singapore and Dr. Rajiv Anand from Texas were the invited international faculty for the scientific sessions. The Indian faculty included Dr. R.V Azad, Dr. Cyrus Shroff and Dr. Nagpal amongst others. The highlight of this meeting was the tele-conferencing with Dr. Lee at Cornell University on the recent emerging trends in the management of retinoblastoma. A total of 170 delegates from all over the country participated in the conference.

Under the leadership of Dr. Kalpana, Senior Medical Officer, Aravind-Coimbatore, the 12th Annual Conference of Strabismological Society of India was hosted in the month of October at Jenneys Club in Coimbatore. Twenty guest faculty, both National and International, graced the occasion. A long term associate of Aravind and a renowned authority on paediatric eye care, Dr. Marilyn Miller from Chicago was the chief guest. A total of 250 delegates participated in the event.

A two day CME on Glaucoma Management – ‘GLUCONS 2005: Newer Trends & Surgical Management’ was held on June 11 and 12. Over a hundred and fifty delegates from various parts of the country participated. National and International faculty including Dr. Alan Robin from Wilmer Eye Hospital, Johns Hopkins University, USA presented papers on a variety of topics.

Sight First Seminar 2005 was conducted in August for the Lions Club members on eye care, eye donation and on conducting eye camps.

Aravind-Coimbatore used the National Eye Donation Fortnight (August 25-September 8) to create awareness on eye care among the public apart from the importance of eye donation. A lecture on



*Dr. Au Eong Kah Guan,  
Dr. P. Namperumalsamy and  
Dr. V. Narendran at Udhagai 2005, the  
13th Annual Conference of Vitreo Retinal  
Society of India*





*At the SightFirst seminar*

*Dr. Alan L. Robin, Dr. R. Ramakrishnan and...*



the importance of eye donation was given to over 200 NSS students and other students doing their masters in social work from four different colleges.

Dr. Revathy Raja Raman, Medical Officer, Cornea Department presented papers on analysis of wound infections after cataract surgery in South India and analysis of Descemet's Membrane Detachment and its importance in Small Incision Surgery, at the American Society of Cataract and Refractive Surgery (ASCRS) ASOA 2005 Symposium and Congress held at Washington, DC, in April 15-20.

The eye bank at Coimbatore has been upgraded with support from the Indian Overseas Bank. The new facility now named as the 'Aravind-IOB Eye Bank' was inaugurated on January 28 by Mr. M. Shanmugam, Deputy General Manager, Indian Overseas Bank, Coimbatore.



*...Dr. Sathyan at GLUCONS 2005*

*During the inauguration of 12th Annual Conference of Strabismological Society of India*



## ARAVIND-PONDICHERRY

In the year 2005, the hospital handled 254,718 outpatient visits and performed 32,459 surgeries, conducted 244 comprehensive eye screening camps, 117 diabetic retinopathy screening camps, 3 refraction camps and 18 school screening camps.

One of the highlights of the year 2005, has been focusing on activities that increased the involvement with the local community. Several training programmes were conducted for CARE Project workers, Self Help Group volunteers, Seminar for Self Help Group volunteers and School Eye Health scheme volunteers.

The high point of the year was Mr. Rahul Gandhi's visit to Pondicherry on 21st January to explore the possibilities of setting up an Eye Hospital at Amethi in Uttar Pradesh which paved the way for starting the Indira Gandhi Eye Hospital and Research Centre at Amethi in collaboration with Aravind Eye Care System.

Dr. R. Venkatesh attended the Third Sumatera Ophthalmology Meeting at Medan, Indonesia, between February 24-25. He presented papers on Small Incision Cataract Surgery, Manual SICS Instrumentation & Steps, Manual SICS - Difficult situations, Learning Bimanual Phaco and Newer Phacoemulsification Technologies. He also attended the World Glaucoma Congress held in Vienna, Austria, between July 6-9, along with Dr. R. Ramakrishnan, where he presented a poster on "Visual experience during phacoemulsification – Trabeculectomy under peribulbar anaesthesia".



*Dr. Venkatesh at the Third Sumatera Ophthalmology Meeting in Indonesia*

*His Excellency, Lt. Governor M.M. Lakhera, The Governor of Pondicherry, Dr. G. Venkataswamy, Dr. P. Namperumalsamy and others at the WDF project inauguration*





*Dr. G. Venkataswamy and Dr. R.D. Ravindran during their visit to US in the month of February, with Dr. H. Dunbar Hoskins, Executive Vice President, American Academy of Ophthalmology*

*Dr.R. Venkatesh and Dr. R. Ramakrishnan in Vienna*



*Mr. Rahul Gandhi with the Aravind team at Aravind-Pondicherry*



On January 23, there was another milestone in the history of Aravind-Pondicherry. The World Diabetes Foundation has extended its services in collaboration with Aravind Eye Hospitals to serve in Pondicherry also. The project at Pondicherry is aimed at screening the population for Diabetes and Diabetic Retinopathy and conducting awareness programme to reduce the blindness secondary to Diabetic Retinopathy and cover the districts of Pondicherry, Cuddalore and Villupuram (an estimated 60 lakh population). The project was inaugurated by His Excellency, Lt. Governor M.M. Lakhera, The Governor of Pondicherry.

In Pondicherry, as part of awareness creation, 4 seminars for 176 medical officers of Primary Health Centres, 7 seminars for 423 paramedical personnel and 31 seminars for 1,788 participants from Non-Governmental Organisations (NGO) and Self Help Groups (SHG) have been conducted.

#### **EPIDEMIOLOGY OF AGE-RELATED EYE DISEASES IN INDIA-INDEYE**

The main objective of the study is to obtain precise estimates of the prevalence of cataract and Age-Related Macular Degeneration (ARMD/AMD). The study covers a population of about 6,000 people aged over 60 years and the examination is done at 2 centres, one at RP Centre, Delhi and the other at Aravind Eye Hospital, Pondicherry. Started in January 2005, the study is expected to be completed by August 2006. From the beginning of the study, 20 clusters of approximately around 2000 people have been screened. Dr. Astrid Fletcher came to Aravind-Pondicherry to attend the review meeting.

## MANAGED EYE HOSPITALS

Having succeeded in building up the capacity of over 200 eye hospitals through a consultancy process, Aravind Eye Hospitals and LAICO are moving one step ahead to provide management services to eye hospitals in areas of need in India and other parts of the world. The long term plan is to grow in capacity to reach out to a larger population in need through a network of 100 managed eye hospitals. The reason for this shift is, that in many situations in which the eye hospitals having the required resources or the potential to get them, don't have a team with competence to develop systematic ways of working to utilise these resources optimally and to provide better services to their community. These are situations where mere consultancy programmes alone are inadequate to develop these hospitals. And hence, the new concept of "Managed Eye Hospitals" has been introduced. In this model once an agreement is reached by Aravind to help establish and manage an eye hospital it is done by sending Aravind's own human resource and by putting in place, the time tested systems and process practiced in Aravind Eye Hospital. Indira Gandhi Eye Hospital & Research Centre was the first eye hospital under the paradigm of 'Managed Eye Hospitals'. The M.P. Birla Eye Hospital started in 2001 in Kolkata has now been brought under this paradigm.

*Dr. G. Venkataswamy and Late Mrs. Priyamvada Birla signing the collaborative working agreement at Aravind-Madurai in 2000*



### **M.P. BIRLA EYE CLINIC, KOLKATA**

Aravind entered a collaborative working agreement with the M.P.Birla group to establish a modern and yet a community focused

*Priyamvada Birla Aravind Eye Hospital*



eye care facility in Kolkata to serve the people of Eastern India on December 25, 2000. A year later, in December 2001, the M.P.Birla Eye Hospital was inaugurated in Kolkata. Right from the selection of the paramedical staff from the West Bengal region, their training at Aravind-Madurai, the appointment of ophthalmologists and administrators, to providing clinical and overall developmental support, Aravind has been closely involved in managing this venture.

Staffed with 5 ophthalmologists, 31 paramedical staff and 6 administrative staff, the hospital handled 30,867 outpatient visits and 3,254 surgeries in 2005.

The hospital will move to its own new 5 storeyed facility in 2006 and will be called Priyamvada Birla Aravind Eye Hospital.

The first eye hospital, under the paradigm of 'managed eye hospitals', the Indira Gandhi Eye Hospital & Research Centre, was conceived, developed and made operational within a period of 7 months and was inaugurated on 4th December 2005.

#### INDIRA GANDHI EYE HOSPITAL AND RESEARCH CENTRE, MUNSHIGANJ, AMETHI

With an aim to cater to the eye care needs of the people of Amethi, Rae Bareli and neighbouring districts, Rajiv Gandhi Charitable Trust joined hands with Aravind Eye Hospital to start Indira Gandhi Eye Hospital and Research Centre at Munshiganj, Amethi, Uttar Pradesh. The staff of the hospital were largely recruited in Uttar Pradesh and trained at Aravind-Madurai for three months. To conclude this training programme, a two day Vision Building exercise was conducted on October 19-20. On October 20, Rahul Gandhi visited Aravind-Madurai to meet with the team of paramedics from Amethi and Aravind who would form the start-up team to run the eye hospital. The hospital started functioning initially with the Outpatient Department alone from the 7th November and the hospital was formally inaugurated by Mrs. Sonia Gandhi on the December 4. Thanks to the synergy the hospital is already running to capacity.

*Shri. Rahul Gandhi with the Amethi start-up team at Aravind-Madurai*



# PERFORMANCE 2005

## ARAVIND EYE HOSPITALS

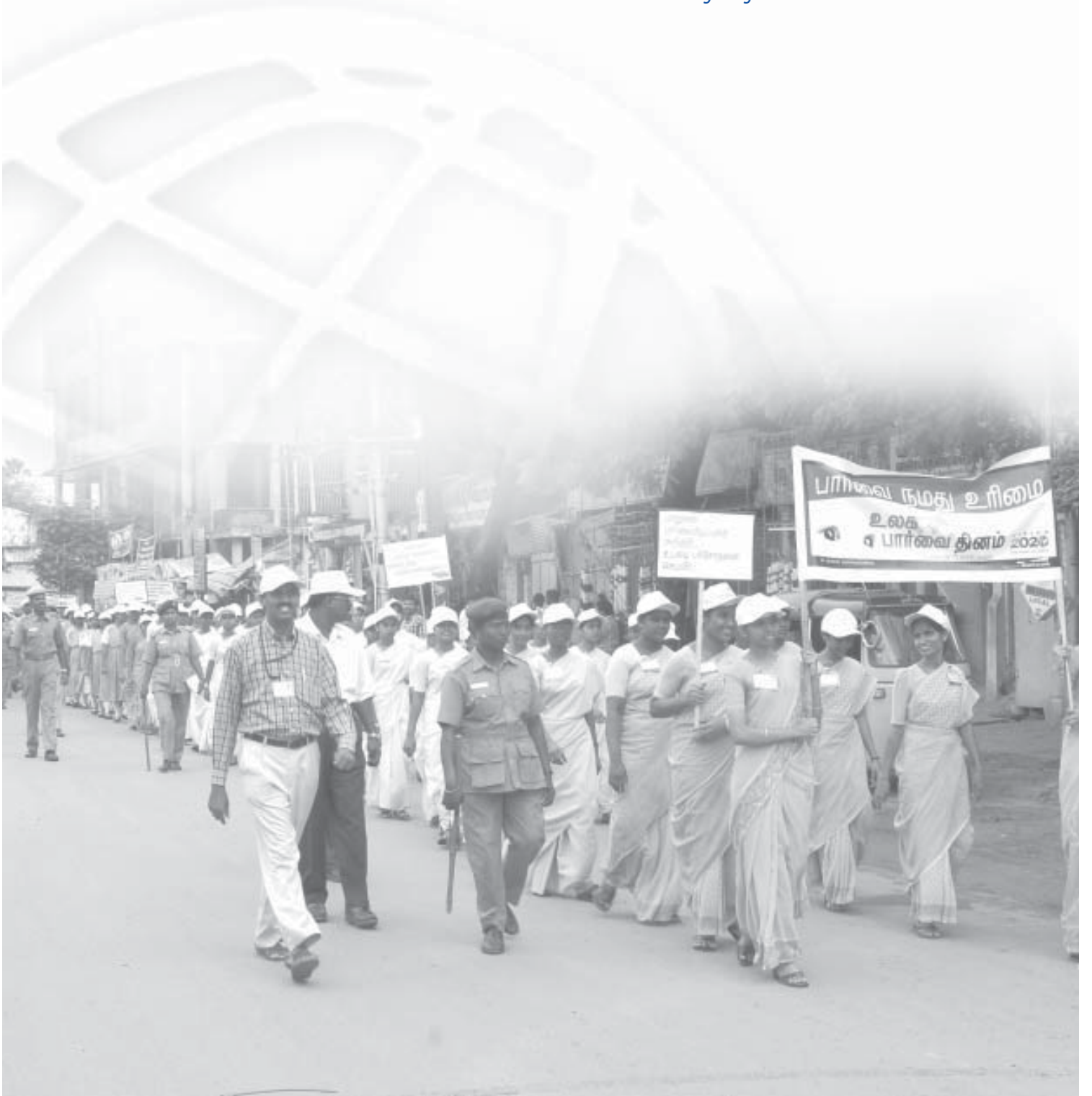
	MADURAI	THENI	TIRUNELVELI	COIMBATORE	PONDICHERRY	TOTAL
<b>OUTPATIENT VISITS</b>						
Paying	330,913	54,427	171,040	234,935	137,470	928,785
Free (Direct & Camp)	274,304	49,127	134,506	217,928	117,248	793,113
Total Outpatient visits	605,217	103,554	305,546	452,863	254,718	1,721,898
<b>SURGERIES</b>						
Paying	42,341	2,961	14,170	22,930	10,732	93,134
Free (Direct & Camp)	61,734	7,326	22,842	40,472	21,727	154,101
Total Surgeries	104,075	10,287	37,012	63,402	32,459	247,235
CAMPS	368	91	250	382	244	1,335
<b>SURGERY DETAILS</b>						
Cataract Surgeries	73,141	8,519	27,331	45,464	24,484	178,939
Trabeculectomy & Combined procedure	2,458	20	919	1,172	510	5,079
Retina & Vitreous Surgery	1,572	1	204	1,095	306	3,178
Squint Correction	768	0	105	231	68	1,172
Keratoplasty	397	0	37	240	71	745
Pterygium	695	41	89	549	267	1,641
Ocular injuries	261	2	110	405	134	912
Lacrimal Surgeries	2,351	229	789	752	834	4,955
Other Orbit & Oculoplasty Surgeries	2,871	151	604	1,292	607	5,525
Others	2,762	206	566	2,448	1,221	7,203
Laser Procedures	15,437	1,118	6,026	9,354	3,957	35,892
LASIK Refractive Surgery	1,362	-	232	400	-	1,994
TOTAL	104,075	10,287	37,012	63,402	32,459	247,235

## Vision Centres & Community Eye Clinics: Performance (Since inception)

	VISION CENTRES			COMMUNITY EYE CLINICS	
	Ambasamudram April '04	Andipatti Dec '04	Bodi Sept '05	Tirumangalam Sept '05	Melur Dec '04
Inaugurated on					
Outpatient visits	3438	4229	1018	3634	16,716
<b>SURGERIES</b>					
Paying	18	30	8	58	224
Free	128	59	38	39	358
TOTAL SURGERIES	146	89	46	97	582
Glasses Advised	583	764	246	790	2950
Glasses Ordered	442	479	124	743	2694

*Our environment, the world in which we live and work, is a mirror of our attitudes and expectations.*

*- Earl Nightingale*





## COMMUNITY OUTREACH

### COMPREHENSIVE EYE CAMPS

In the year 2005, a total of 1,335 comprehensive eye camps were conducted by Aravind Eye Hospitals, screening a total of 437,224 patients, of whom 97,292 underwent surgery.

### DIABETIC RETINOPATHY SCREENING CAMPS

Through 451 Diabetic Retinopathy screening camps conducted under Lions and WDF projects, a total of 109,401 people were screened in 2005. Of them 24,716 had diabetes and 2,962 of them suffered from Diabetic Retinopathy.

### EYE SCREENING CAMPS FOR SCHOOL CHILDREN

122,150 children in 168 schools were screened for visual deficiencies in 2005 and 7,286 children were found to have visual defects. 4,380 of these children were given glasses to correct refractive errors.

### REFRACTION CAMPS

Joining hands with industries, transport companies, banks and Government bodies, Aravind conducts refraction camps for the employees of the respective institution. Thousands of patients attending these camps benefit from the on-the-spot dispensation of quality prescription glasses almost immediately at a fraction of the cost they would otherwise incur. In 2005, a total of 116 refraction camps were conducted, where 27,695 employees were screened.

*From Aravind-Madurai,  
Dr. G. Venkataswamy addresses the  
sponsors' at Aravind-Tirunelveli and  
Aravind-Pondicherry through  
video-conferencing at the sponsors' day  
celebration*





*Mr.D. Raajendiran, Madurai District Collector inaugurating the CME for PMOAs*

### **CME FOR GOVT. PARAMEDICAL OPHTHALMIC ASSISTANTS**

September 10-11

Recognising the role of paramedical ophthalmic assistants in eliminating needless blindness, Aravind Eye Care System organised a CME programme for them in Madurai, Tirunelveli and Coimbatore. The main objective was to make them understand the goals of VISION 2020, update them on recent developments in ophthalmology and strengthen their network with Aravind Eye Care System. The programme was inaugurated in Madurai by Dr. G. Venkataswamy and District Collector Mr. D. Raajendiran. A total of 228 PMOAs from 19 districts participated in this programme.

### **SPONSORS' DAY-2005**

October 23

This year the Sponsors' day was conducted simultaneously at all Aravind Eye Hospitals on October 23. The main objective was to recognise the sponsors' contribution to the community outreach and also to strengthen their network with the hospital.

Dr. G. Venkataswamy, Founder-Chairman, Aravind Eye Care System rendered felicitation address to all the four hospitals through tele-conferencing in order to recognise the services rendered by the community based service organisations. About 597 sponsors from various service organisations attended the function. This function also helped to review their performance and strengthen commitment which paves the way for constant growth in service to the community.

*Aravind- team at a camp in Tripura*

### **SPECIAL CATARACT SURGERY DRIVE AT TRIPURA**

December 20, 2005 - January 3, 2006

Ministry of Health and Family Welfare, Government of India through the National Programme for Control of Blindness, initiated a special programme to address the blindness problem in North Eastern States to compensate for the inadequate eye care services there. Aravind Eye Hospital was assigned the Tripura State. As a first step towards the mission of clearing backlog, a 13 member surgical team from Aravind under the leadership of Dr. D. Datta, Chief Medical Officer, Aravind-Theni went to Tripura and performed 450 cataract surgeries in four district hospitals (Agartala, Udaipur, Kamalpur and Kailashahar) of Tripura.

MEDICAL EYE TEAM  
ARVIND EYE HOSPITAL  
MADURAI, TAMILNADU  
D. B. C. S. DHALAI, TRIPURA



## OUTREACH PERFORMANCE 2005

### SPONSORWISE CAMP PERFORMANCE 2005

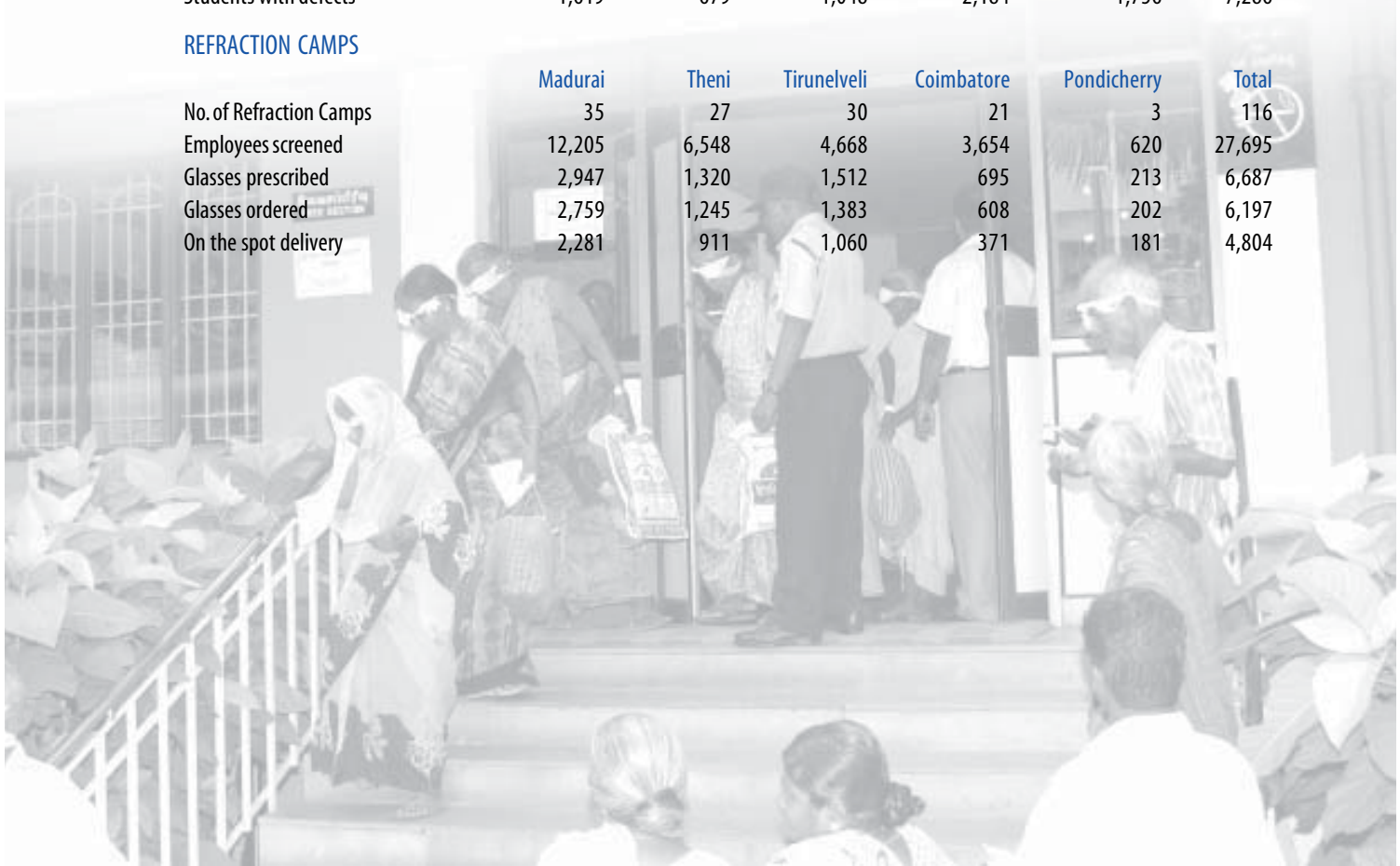
Sponsor	Camps	Outpatients	Cataract	Others Surgeries	Total Surgeries
Lions Clubs	479	153,332	36,101	784	36,885
Rotary Clubs	71	25,384	5,931	148	6,079
Vivekananda Kendra	48	11,455	2,238	92	2,330
Sri Sathya Sai Organisations	36	11,136	2,025	53	2,078
Religious Organisations	96	37,328	8,080	203	8,283
Jaycees	4	1,192	293	6	299
Banks	9	3,623	482	6	488
Mills & Factories	40	22,672	5,017	106	5,123
DBCS	86	19,134	6,681	264	6,945
Educational Institutions	44	13,281	2,246	74	2,320
Hospitals	36	9,871	1,484	32	1,516
Trusts	65	20,827	4,882	142	5,024
Youth & Fans Association	15	4,441	850	19	869
Other Voluntary Organisations	118	31,957	5,233	119	5,352
Others	188	71,591	13,359	342	13,701
<b>TOTAL</b>	<b>1,335</b>	<b>437,224</b>	<b>94,902</b>	<b>2,390</b>	<b>97,292</b>

### EYE SCREENING FOR SCHOOL CHILDREN

	Madurai	Theni	Tirunelveli	Coimbatore	Pondicherry	Total
Schools covered	17	10	12	111	18	168
Teachers trained	255	73	41	42	60	471
Students screened	27,038	10,143	12,666	47,732	24,571	122,150
Students with defects	1,619	679	1,048	2,184	1,756	7,286

### REFRACTION CAMPS

	Madurai	Theni	Tirunelveli	Coimbatore	Pondicherry	Total
No. of Refraction Camps	35	27	30	21	3	116
Employees screened	12,205	6,548	4,668	3,654	620	27,695
Glasses prescribed	2,947	1,320	1,512	695	213	6,687
Glasses ordered	2,759	1,245	1,383	608	202	6,197
On the spot delivery	2,281	911	1,060	371	181	4,804



## DIABETIC RETINOPATHY INITIATIVES IN 2005

In recent years Diabetic Retinopathy is rapidly becoming an important cause of blindness around the world. Twenty years ago in India, Diabetic Retinopathy ranked as the 17th cause of blindness. Today it is the sixth. The rise of this condition is, and should be, an increasing cause for concern in developing countries. According to WHO, a staggering 31.7 million people were affected by diabetes in India in the year 2000. This figure is estimated to rise to 79.4 million by 2030, the largest number in any nation worldwide. It is estimated that 25% of diabetics will have Diabetic Retinopathy over a period of time, which means most diabetic patients will require close follow up.

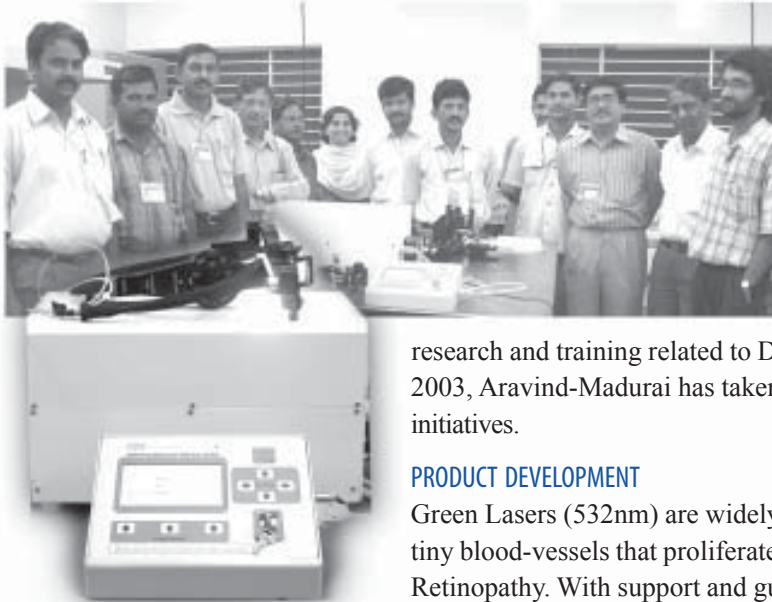
*Dr. P. Namperumalsamy at the Third Annual TIFAC-CORE meet*



While awareness of the disease and its treatment modalities among the community and among physicians are low, the good news is that timely treatment can prevent upto 60-70% of vision loss. Given that there are no proven models for screening and service delivery for Diabetic Retinopathy, various activities along these lines have been implemented with the support of World Diabetes Foundation (WDF) at Madurai, Theni, Tirunelveli, and Pondicherry. Past activities with the support of Lions Club International at Coimbatore and Madurai facilitated an increase in community awareness about Diabetic Retinopathy and moved Aravind closer to designing an effective model. Understanding the urgency of the need and the inherent strength in this approach, the Government of India and the World Diabetes Forum have joined hands with Aravind Eye Hospitals to tackle the problem of Diabetic Retinopathy in a systematic way.

### ARAVIND DIABETIC RETINOPATHY PROJECT

The Lions Aravind Diabetic Retinopathy Projects came to an end in 2004. Since then, Aravind Eye Hospitals have integrated as part of their regular work, the awareness creation, community outreach, patient-doctor interaction sessions and health education programmes for Diabetic Retinopathy at Madurai, Theni and Coimbatore districts. In 2005, 14 awareness seminars were conducted for 1,500 participants from the Lions clubs, Rotary clubs and Non-Governmental Organisations (NGO) and three exhibitions were also conducted.



*Mr. Clement and Mr. Jolly Xavier of Aurolab with CAT Indore Team that developed the Green Laser*

## TIFAC-CORE IN DIABETIC RETINOPATHY

*(Technology Information, Forecasting and Assessment Council- Centre Of Relevance and Excellence)*

Since its designation as a TIFAC-CORE to become a world leader in patient care,

research and training related to Diabetic Retinopathy in February 2003, Aravind-Madurai has taken up many new training and research initiatives.

### PRODUCT DEVELOPMENT

Green Lasers (532nm) are widely used for the photocoagulation of tiny blood-vessels that proliferate with the onset of Diabetic Retinopathy. With support and guidance from the TIFAC-CORE Chairman, Dr. R. Chidambaram, Aurolab has signed a Memorandum Of Understanding (MOU) with the Centre for Advanced Technology (CAT), Indore, to develop Green Lasers which are widely used for photocoagulation in the treatment of Diabetic Retinopathy. The MOU proposes to initiate a 'Greenfield' project for developing a Pulsed, Green Laser with necessary power, controls and all features required for photocoagulation in the treatment of Diabetic Retinopathy.

### THIRD ANNUAL TIFAC-CORE MEET 2005

Madurai, November 24

The event was jointly organised by Aravind Eye Hospital, Madurai, Arulmigu Kalasalingam College of Engineering, Krishnankovil, Thiagarajar College of Engineering, Madurai, and MEPCO Schlenk Engineering College, Sivakasi. The valedictory function of the meet was held at Aravind-Madurai on November 26. The participants of the meet included, Dr. Chidambaram, Chairman, TIFAC & Principal

Scientific Advisor to the Government of India, Dr.M.Natarajan, Scientific Advisor to Defence Minister, Secretary of Defence Research & Development, Director General, ADA, Prof.P.V.Indiresan, Former Director, IIT-Madras and Member TIFAC-CUSEC, Lt.Gen.Yash Malhotra, Member, TIFAC Governing Council, and Mr. Deepak Bhatnagar Advisor, Mission REACH, TIFAC.

*Guest Faculty to the International Symposium on Diabetic Retinopathy with the Aravind Retina-Vitreous Services team*



## INTERNATIONAL SYMPOSIUM ON DIABETIC RETINOPATHY

Madurai, September 3-4

The international symposium on “Diabetic Retinopathy” was organised by TIFAC-CORE in Diabetic Retinopathy in collaboration with leading institutions like University of Wisconsin-Madison, Joslin Diabetes Centre, USA. The lectures were delivered by Dr. Lloyd P. Aiello, MD., Ph.D, Director of Joslin Diabetes Centre, Boston, USA. Around 148 persons including ophthalmologists, diabetologists, postgraduates, consultants from various hospitals and institutions from all over India participated.

## CAPACITY BUILDING WORKSHOP ON “DIABETIC RETINOPATHY”

July 1-4, December 2-4

Two capacity building workshops focusing on Diabetic Retinopathy for Sight Savers International supported hospitals were organised at LAICO, in 2005. The first was conducted in July for hospitals located in Rajasthan, Orissa, West Bengal and Bihar. The second workshop was organised in December for hospitals located in Uttar Pradesh, Gujarat, Madhya Pradesh, Punjab, Andhra Pradesh, Maharashtra and Tamilnadu. Each of these hospitals delegated a team that consisted of the Trustees/Key Decision Maker, Ophthalmologist and Community Outreach Worker. Totally 39 delegates from 14 eye hospitals participated in these two workshops. The workshop aimed at developing a vision amongst the Eye Hospitals focusing on Diabetic Retinopathy and translating them into time bound strategies. The workshop course design facilitated practical exposure to different dimension of Diabetic Retinopathy such as magnitude, infrastructure, clinical protocols and community interventions.



*Mr. Sekar, DR Project officer explaining the camp procedures to the participants of the Capacity Building Workshop for DR services*

## WDF-ARAVIND DIABETIC RETINOPATHY PROJECT

### TIRUNELVELI, THENI, MADURAI:

In Tirunelveli, several seminars were conducted to create awareness about Diabetic Retinopathy. Three seminars were conducted for 120 medical officers of Primary Health Centres (PHC), six seminars for 438 paramedical personnel and thirteen seminars for 2,428 participants from medical shops and Non-Governmental Organisations (NGO) along with 9 exhibitions have been conducted.

The Mobile Van Screening Unit now goes to regular eye camps. In 2005, 42 mobile screening camps were conducted at different places. A total of 12,878 outpatients were screened for general eye check-up, out of this 1,566 diabetic patients' fundus images were taken at the mobile van and sent to the reading and grading centre for expert opinion. 336 patients were found to have Diabetic Retinopathy.

From the Theni remote rural screening centre 372 digital fundus images were transferred to reading and grading centre for expert opinion and consultation through V-SAT connection. Of these, 315 patients (Retina cases 202; other cases 113) received consultation in the form of a message sent immediately while the remaining 57

*Aravind-Tirunelveli nursing staff on an awareness rally to mark World Diabetes Day*





*Field worker during door to door enumeration for Epidemiology survey on Diabetic Retinopathy in Theni*



*Mr. Soloman Pappaiah lighting the lamp to inaugurate World Diabetes day celebrations in Madurai*

patients (Retina cases 13; other cases: 44) received on-line consultation through tele-medicine connectivity. In addition, 141 Diabetic Retinopathy patients received consultations from the reading and grading centre at Madurai.

#### **PONDICHERRY:**

The World Diabetes Foundation in collaboration with Aravind Eye Hospitals has extended its services to Aravind-Pondicherry also. The project at Pondicherry aims to screen the population for Diabetes and Diabetic Retinopathy and conduct awareness programmes to reduce the blindness secondary to Diabetic Retinopathy covering the districts of Pondicherry, Cuddalore and Villupuram (an estimated 60 lakh population). The project was inaugurated by His Excellency, Lt. Governor M.M. Lakhera, The Governor of Pondicherry on January 23.

In Pondicherry, as part of awareness creation, 4 seminars were conducted for 176 medical officers, 7 for 423 paramedical personnel, 31 for 1788 participants from Non-Governmental Organisations (NGO) and Self Help Groups (SHG).

#### **EPIDEMIOLOGY SURVEY ON DIABETIC RETINOPATHY, THENI**

This is the first population based epidemiology survey on the prevalence of Diabetes and Diabetic Retinopathy in India. This project at Theni aims to conduct population based cross sectional epidemiology survey to determine the prevalence of Diabetic Retinopathy of persons aged 30 years and above. The main study commenced on August 13. Random cluster sampling method was used for this study. After completion of the pre-pilot and pilot studies, necessary corrections were done in the questionnaire. As on date, the epidemiology survey data collection (Household enumeration, Diabetes screening and Diabetic Retinopathy screening) have been completed in 32 clusters out of the 53 clusters. The survey is scheduled to be finished by the 10th of March 2006.

#### **WORLD DIABETES DAY 2005**

November 14

In connection with the World Diabetes Day, several awareness activities were carried out in all Aravind Eye Hospitals.

#### **DIABETIC RETINOPATHY CAMPS**

##### **Aravind Diabetic Retinopathy Project**

	Exclusive DR camps	Patients screened	Identified diabetics	Found to have DR	Laser
Aravind-Madurai	23	6822	2276	398	913
Aravind-Theni	7	1740	554	115	408
Aravind-Coimbatore	29	6341	2721	494	849

##### **WDF - Aravind Diabetic Retinopathy Project (through exclusive DR camps, Regular camps and Awareness camps)**

	Patients screened	Identified diabetics	Found to have DR	Laser
Aravind-Tirunelveli	51,909	11,239	1185	723
Aravind-Pondicherry	42,589	7926	770	474

## AWARDS & ACCOLADES



*Dr. G. Venkataswamy receiving Himotkarsh National Integration Award*



*Dr. G. Venkataswamy speaking at the Alumni Association function of Madurai Diraviyam Thayumanavar Hindu College*



*Dr. G. Venkataswamy with Mrs. Roberta Neustadter, a benefactor of the IHH and Community Volunteer of the year*



*Dr. P. Namperumalsamy receiving the K.G.P. Chidambaram Memorial Gold Medal*

### **Dr. G. Venkataswamy, Founder-Chairman, Aravind Eye Care System**

#### **For The Sake of Honor Award**

By the Rotary Club of Madras East on January 19 in recognition of his extraordinary services to the cause of eradication of preventable blindness among the needy and underprivileged sections of the society.

#### **Himotkarsh National Integration Award**

For the year 2004, instituted by Himotkarsh, a Social Welfare Organisation based in Himachal Pradesh, in recognition of his social service.

#### **The Pioneers in the Art, Science and Soul of Healing Award**

By the Institute of Health & Healing, USA on February 10.

#### **Alumni Association honors Dr. G. Venkataswamy**

The Alumni Association of Madurai Diraviyam Thayumanavar Hindu College and Higher Secondary School at Tirunelveli celebrated its 125th anniversary on March 27. On this day the institute honoured its former student Dr. G. Venkataswamy, Chairman of Aravind Eye Hospitals as the illustrious former student, by Justice T.N. Vallinayakam.

### **Dr. P. Namperumalsamy, Vice Chairman, Aravind Eye Care System**

Honored with K.G.P. Chidambaram Memorial Gold Medal Award for his outstanding services in the field of ophthalmology and for the benevolent contribution to community eye care by Nalam Hospital and Diabetes Centre, Theni on June 30.

#### **Dr. G. Natchiar, Director-HRD, Aravind Eye Care System**

Received the Mehra Award in Konark, Orissa, India from the Indian Alumni Group of ICEH, London for her contribution to the eradication of needless blindness.

#### **Dr. N. Venkatesh Prajna, Medical Officer, Cornea Clinic**

Was nominated as member of the international advisory council of the International Council of Ophthalmology (ICO) which will review and advise ICO accordingly. He is also selected as a member of the assessment committee of ICO and will participate in question selection and evaluation of the ICO examinations held worldwide.





**Dr. M. Srinivasan, Director, Aravind Eye Hospitals & PG Institute of Ophthalmology**  
 Has been recognised by the readers of “Cataract & Refractive Surgery Today”, as one among the Top 50 Opinion Leaders - 2005, for his Outstanding Contribution and Leadership in the Fields of Cataract and Refractive Surgery.

**Dr. Vasumathy Vedantham, Medical Officer, Aravind-Madurai**

Dr. Vasumathy won the Rakesh Sharma Memorial Award for her best work in Ocular trauma in India. The title of her work is “Clinical microbiological profile of post traumatic endophthalmitis at a tertiary care centre in South India”.



*Dr. Vasumathy Vedantham receiving the Rakesh Sharma Memorial Award*

**Dr. R. Venkatesh, Deputy Chief Medical Officer, Aravind-Pondicherry**

Was awarded the Travel Grant Award for his poster on ‘Visual experience during phacoemulsification-trabeculectomy under peribulbar anaesthesia’ at the World Glaucoma Congress 2005 held in Vienna, Austria.

**Dr. Sachin Dev, Aravind-Coimbatore**

Received C.P.Gupta Award at the 53rd Annual conference of the TNOA held in Kodaikanal on August 12-14 for his paper on “Bowmans Cautery in Comparison to Amniotic Membrane graft as a palliative treatment for pseudophakic bullous Keratopathy”.

**Dr. Nitin Deshpande, Long-Term Fellow, Glaucoma Clinic, Aravind-Madurai**

Was awarded the Best Poster Award for his work on “Aqueous Humor and Serum H.Pylori antibodies in POAG and Exfoliative glaucoma” in the Indo-Israel Meeting held in Chennai in November 2005.

**IT Power User Award**

CIOL (Cyber India Online Limited, Bangalore) and SMB (Small and Medium Business) Forum recognise the potential IT user among companies and institutions for giving ‘IT Power User’ award every year. They carry out a survey at district level to issue this award.

This year Aravind Eye Hospital, Madurai was selected by the forum for this award for implementing IT in various areas for better patient care and management. It was given by Mr. Rathinavel, President of Tamilnadu Chamber of Commerce and Industry on August 17 at Hotel Sangam, Madurai.



**National Accreditation**

Aravind Diagnostic Laboratory, Madurai has been accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL). It is an autonomous body under the aegis of Department of Science & Technology, Government of India, and is registered under the Societies Act.

# EDUCATION AND TRAINING PROGRAMMES

## ARAVIND POSTGRADUATE INSTITUTE OF OPHTHALMOLOGY

### POSTGRADUATE TRAINING IN OPHTHALMOLOGY

In affiliation with,

— **The Tamil Nadu Dr. MGR Medical University, Chennai**

Diploma in Ophthalmology (DO) - Eight candidates

MS in Ophthalmology (MS) - Six candidates

— **National Board of Examinations, New Delhi**

Diplomate of the National Board (Dip.NB) - Thirteen candidates



*Dr. Manju Pillai with Fellows in the Glaucoma Clinic at Aravind-Madurai*

### LONG-TERM Fellowship Programmes

The fellowship programmes are designed to enable ophthalmologists to improve their professional skills through advanced training in a specific ophthalmic subspecialty of their choice. These courses are offered in the specialities of ophthalmology such as Retina-Vitreous, Cornea, Paediatric Ophthalmology and Strabismus, Glaucoma, Intraocular Lens Microsurgery, Uvea and Orbit and Oculoplasty.

*Dr. Haripriya with Fellows in the Cataract Clinic at Aravind-Madurai*



### SHORT-TERM FELLOWSHIP PROGRAMMES FOR PRACTICING OPHTHALMOLOGISTS

#### IOL Microsurgery Training Programme

A total of forty-nine ophthalmologists were trained at Aravind-Madurai, Tirunelveli and Coimbatore in 2005.

#### Manual Small Incision Cataract Surgery

A total of fifty-eight ophthalmologists were trained at Aravind-Madurai, Tirunelveli and Coimbatore in 2005.

*Short-Term IOL trainees at the Aravind-ALCON wetlab at Aravind-Coimbatore*





*Dr. Sudeep Pramanik, Dr. Jill Green, and Dr. Homayoun Tabaneh with Dr. Prajna*

#### VISITING RESIDENTS 2005

University of Washington, Washington, USA  
[Dr. JOSHUA LITWIN](#)

Wilmer Eye Institute, Baltimore, USA  
[Dr. HOWARD FINE](#)  
[Dr. HOMAYOUN TABANEH](#)  
[Dr. MARGARET CHANG](#)

Mass Eye and Ear Infirmary, Boston, USA  
[Dr. RISHI SINGH](#)  
[Dr. EVA KIM](#)  
[Dr. MITESH KAPADIA](#)

California Pacific Medical Centre, California, USA  
[Dr. PULIN SHAH](#)  
[Dr. JILL GREEN](#)

St. Vincents, USA  
[Dr. MARK BUCHSBAUM](#)

University of Alabama, School of Optometry, Birmingham, USA  
[Dr. YU ZHAO](#)



*Mr. Selvakumar with the clinical & supervisory skills development course participants*

*Optical dispensing course participants with the Aravind Optometry and Education team*



#### Phacoemulsification

A total of forty-three ophthalmologists were trained at Aravind-Madurai, Tirunelveli, Coimbatore and Pondicherry in 2005.

#### Lasers in Diabetic Retinopathy Management

This course is now offered at Aravind-Madurai and Coimbatore with support from the TIFAC-CORE. Fifty-nine ophthalmologists were trained in 2005.

#### Diagnosis and Management of Glaucoma

The Aravind-Zeiss Centre of Excellence in Glaucoma, at Aravind-Tirunelveli, Madurai and Coimbatore trained forty-nine ophthalmologists in 2005.

#### VISITING RESIDENTS

Ophthalmology residents from several universities in the US rotate through Aravind during the final year as part of their Residency in Ophthalmology.

#### SHORT-TERM COURSES FOR OPHTHALMIC ASSISTANTS

##### Certificate course on Clinical & Supervisory Skills Development in Ophthalmic Paramedical Personnel

Mid-Level Ophthalmic Personnel (MLOP) are the backbone of effective eye care programmes. This course sharpens their clinical skills and also imparts supervisory skills to make MLOPs more effective in managing the personnel and their work. Totally seventeen candidates participated in this course, ten of them were from India, two from New Guinea and one each from Zambia, Nigeria, Afghanistan, Cameroon and Nepal.

##### Course in Optical Dispensing

LAICO also offers a three months certificate course in optical dispensing. Out of the total four courses held this year, two courses were held specially for the partners of SSI, Kolkata. A total of 34 candidates were trained in these four batches.

##### PG Diploma in Optometry

In 2005, eleven candidates were trained.

##### PG Diploma in Ophthalmic Assistance

In 2005, four candidates were trained.

#### TRAINING IN INSTRUMENTS AND EQUIPMENT MAINTENANCE

In the five courses offered in 2005, eighteen trainees were from India, three from Nepal and one from Cambodia. Two ophthalmologists from Kenya were also trained.



*Dr. Mahesh Kumar with Dr. Neil Miller*



*Dr. Mahesh Kumar with Dr. David Chang*

### PROJECT STUDENTS FROM UNIVERSITY OF PENNSYLVANIA

A team of 7 students from The Wharton School, University of Pennsylvania were at Aravind-Madurai for two weeks from December 23-January 7. Their project was to develop metrics for monitoring the “Managed eye hospitals activities and development”. They also visited Aravind-Pondicherry from January 7-9.

### INTERNAL CAPACITY BUILDING-SPECIALITY TRAINING

**Dr. Mahesh Kumar** visited Wilmer Eye institute and Johns Hopkins University, Baltimore, USA. He worked with Dr. Neil Miller in the Department of Neuro-ophthalmology. During this period he observed his clinical work in the outpatient department, attending his lectures and observing his surgeries. He gained lot of exposure in the methodology of work up of neuro-ophthalmology cases, latest investigations and treatment modalities. Dr. Neil Miller also gave his valuable comments on the upcoming Atlas of radiology in neuro-ophthalmology and orbital diseases containing images from the clinical cases at Aravind. He also visited Presbyterian hospital, Columbia University, New York observing Dr. Myles Behrens of the Neuro-ophthalmology department in his clinical work. He also observed eminent Neuro-ophthalmologists like Dr. Jacqueline WinterKorn, Dr. Barrett Katz and Dr. Floyd Warren at work.

At the 109th Annual American Academy of Ophthalmology meeting in Chicago between October 15-18, Dr. Mahesh Kumar attended the Neuro-ophthalmology subspeciality day, instruction courses and symposia. He spent time with Dr. David Chang, eminent cataract surgeon at Mountain view, California observing his surgical techniques.

## MAJOR CONTINUING MEDICAL EDUCATION PROGRAMMES ORGANISED AT ARAVIND



*Dr. S.R. Krishnadas demonstrating a surgical technique to a participant at GLUCONS 2005*



*At the DR International Symposium*



*Participants of the CME for PMOAs with Aravind faculty*



*Dr. Kim in the teleconferencing session with Dr. Lee from Cornell University, New York at Udhagai 2005*

### **GLUCONS 2005— Glaucoma CME on Newer Trends & Surgical Management**

Aravind-Coimbatore, June 11-12

Over 150 delegates participated in the conference. Dr. Alan L. Robin from Wilmer Eye Institute, USA, Dr. V. Velayutham, Dr. L. Vijaya, and Dr. Sridhar B. Rao were the Guest Faculty.

### **International Symposium on Diabetic Retinopathy**

Aravind-Madurai, September 3-4

The symposium was organised by TIFAC-CORE in Diabetic Retinopathy in collaboration with leading institutions like University of Wisconsin - Madison, Joslin Diabetes Centre, USA. Around 148 participants including ophthalmologists, diabetologists, postgraduates, consultants from various hospitals and institutions from all over India participated.

### **CME programme for Para Medical Ophthalmic Assistants (PMOAs)**

Aravind-Madurai & Tirunelveli, September 10-11

The paramedical Ophthalmic Assistants who are working in Government PHCs have been assigned to serve a population of 1 lakh each. Recognizing their vital role in eye care delivery, a CME Programme was planned and organized at Aravind-Madurai and Aravind-Tirunelveli. This is the first time such a programme was organised for these PMOAs to give them an exposure to recent advances in ophthalmology. A total of 126 PMOAs from 11 districts participated.

### **12th Annual Conference of Strabismological Society of India,**

Aravind-Coimbatore, October 1-2

The two day intensive conference included lectures, presentations, videos and enlightening discussions on every aspect of strabismus and amblyopia with recent advances. A total of 250 delegates and 20 guest speakers both national and international participated in the event.

### **Udhagai 2005: 13th Annual Conference of Vitreo Retinal Society of India**

Aravind-Coimbatore at Ooty, February 24-27

A total of 170 delegates from all over the country participated in the conference. The Guest Faculty included Dr. Au Eong Kah Guan from Singapore, Dr. Rajiv Anand from Texas, Dr. R.V Azad, Dr. Cyrus Shroff, Dr. Nagpal, Dr. Tara Prasad Das and Dr. Nataraj. The highlight of the meeting was the teleconferencing with Dr. Lee from Cornell University on "The Recent Emerging Trends in the Management of Retinoblastoma".

## MAJOR CONFERENCES ATTENDED ELSEWHERE



Dr. P. Vijayalakshmi participated as a Guest Faculty in the National Workshop on Childhood Blindness at the ORBIS International Sight Saving programme



Dr. Sundaresh, Dr. Abhishek Dagar with Dr. Gaurav Kakkar at the ORBIS International Sight Saving Training Programme

Dr. R. Kim at the AAO meeting in Chicago

### 3rd Sumatera Ophthalmology Meeting

Medan, Indonesia, February 24-25

DR. VENKATESH

- Small Incision Cataract Surgery
- Manual SICS - Instrumentation & Steps
- Manual SICS - Difficult situations
- Learning Bimanual Phaco
- Newer Phaco: Technologies

### ORBIS International Sight Saving Training Programme

New Delhi, March 10-24

Various issues on Childhood Blindness and guidelines to tackle them were discussed at the forum.

DR. P. VIJAYALAKSHMI

- Magnitude and Causes of Childhood Blindness

### 20th Asia Pacific Academy of Ophthalmology Congress (APAO)

Malaysia, March 27-31

DR. KALPANA NARENDRA

Instruction course on paediatric ophthalmology for practicing ophthalmologists

- Paediatric cataract challenges
- Refractive errors in children- How and when to prescribe
- Ocular manifestations in prematurity: Poster
- Myopic shift following paediatric cataract surgery with IOL implantation

DR. PRAJNA

- Management of corneal ulcer
- Innovative ways to Reduce Cost in Elimination of Cataract Blindness Worldwide

DR. PARAG K SHAH

- General ophthalmology in paediatric retinal disorders

DR. V.R. SARAVANAN

- ROP awareness

DR. THOMAS MATHEW

Instruction course on paediatric ophthalmology for practicing ophthalmologists

- Visual development and visual acuity estimation in children
- Amblyopia - Recent advances in management
- A refresher course for the general ophthalmologist in paediatric retinal disorders
- Rehabilitation of children with low vision
- Visual acuity estimation in children
- Attention! Calling for ROP awareness
- Sequelae of ROP

Free papers

- Prevalence of amblyopia in school children
- Fresnel Prisms: Answer for intractable diplopia (Poster)
- Secondary PC IOL implantation in children

### The American Society of Cataract and Refractive Surgery 2005 Symposium and Congress

Washington, DC, April 15-20

DR. REVATHY RAJA RAMAN

- Analysis of Wound infections after Cataract Surgery in South India
- Analysis of Descemet's Membrane Detachment and its importance in Small Incision Surgery

### Fifth International Congress of Ophthalmologists and Optometrists of China (COOC)

Shanghai, China, April 8-10

Dr. R. Ramakrishnan, Chief Medical Officer was invited as Guest Faculty

- SICS technology - Aravind Method and Aravind Management

### Curso Internacional De Salud Ocular Comunitaria

Organised by CBM Lima, Peru, May 16-19

Dr. S. Aravind attended this meeting to prepare for the launch of VISION 2020 programme at Peru. Over 100 ophthalmologists from Peru, Ecuador, Cuba and other countries attended.

### First World Glaucoma Congress

Vienna, Austria, July 6-9

Dr. Venkatesh presented poster on

- Visual experience during phacoemulsification - Trabeculectomy under peribulbar anaesthesia

### Ahmedabad Academy Int. Meet

Ahmedabad, September 23-25

DR. R. KIM

- Parafoveal telangiectasia

### 109th American Academy of Ophthalmology Meeting

Chicago, USA, October 17

DR. KIM: POSTER PRESENTATION

- On Diabetic Retinopathy screening using an integrated Telemedicine approach in South India

## OTHER VISITS ABROAD

### Dr. P. Namperumalsamy in USA

Dr. P. Namperumalsamy was invited to the 'Professor's Rounds' for Wilmer Residents and Public Health Ophthalmology students on "Diabetic Retinopathy in developing countries and Aravind's initiatives". He had discussions with Dr. Morton F Goldberg and Dr. Peter McDonnell, Director of Wilmer Eye Institute about the existing and future collaborations.

He visited Dr. Jackson Coleman, Director and Chairman of the programme and attended grand rounds at Cornell University. He also met with the CEO and staff of Orbis International and Light House International.

### In Geneva, Switzerland

Dr. P. Namperumalsamy attended the WHO Programme 'Consultation on Prevention of Blindness from Diabetes mellitus' held in Geneva in November.

At the various sessions, he spoke on the following topics.

Patient and Public Education and Awareness Session

- *Core content of patient and public DR education materials*
- *Production and dissemination of DR education materials*

Early DR Detection and Screening Approaches Session

- *Community-based screening models*
- *Eye care deficiencies contributing to blindness from DR*
- *Detection within eye care clinics-primary, secondary, tertiary*
- *Technological issues-imaging, mydriasis, telecommunication reading centres*

### Dr.M.Srinivasan's trip to US

May 13-22

Dr. M. Srinivasan attended the Seva Board Meeting at Berkeley. He presented Aravind's 5 year future plan to Seva Board Members and volunteers.

He had discussions on SCUT project with the Director of Proctor, Dr. Todd Margolis, Dr. Witcher and Dr. Tom Leitman and presented the interim report on the study. He also spoke at Kodak Chrome class and at a lunch meeting about corneal diseases in India to Fellows and Residents of UCSF.

He met Dr. Shantall, the Dean of School of Public Health at University of Berkeley. They discussed about involving their Ph.Ds taking up epidemiology projects related to corneal blindness. He met with the Chief of Sjogrens' clinic at UCSF to discuss the possibility of them collaborating with Aravind. He visited Stanford and met Dr. Kuldev Singh, Glaucoma specialist and visited the refractive surgery unit. He also met Dr. David Vastine at Oakland.

He visited North West Lions Eye Bank at Seattle with Mr. Monty Montaya. He had a complete tour of the eye bank and discussed about their eye donation promotional activities and operation of their Eye Bank Network.

### Dr.R.Ramakrishnan in China

When Dr. R. Ramakrishnan went to China for the COOC 2005 in Shanghai, he met representatives from Ophthalmology Times China, and Aier Ophthalmology, a private group of eye hospitals. They discussed various activities of Aravind and how Aravind could help Chinese ophthalmologists to improve their overall performance. He visited Eye and ENT hospital of Fudan University, the biggest and the well equipped tertiary care eye hospital in China.

In Beijing, Dr. R. Ramakrishnan met Dr.Zhao, a Professor and also the President of the Chinese Ophthalmological Association at Peking City Union Medical College and Research Centre.



Dr. M. Srinivasan with Dr. Jack Witcher and Dr. Richard Abbott



Dr. R. Ramakrishnan in China

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*Tell me I'll forget; show me I'll remember; involve me, I'll understand.*

*- Dr. Ernst Wynder*



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## LIONS ARAVIND INSTITUTE OF COMMUNITY OPHTHALMOLOGY

2005 has turned out to be a year of transition for LAICO – moving on to different and higher levels of activities towards achieving its mission of “eliminating needless blindness through teaching and training, capacity building, research, publications and advocacy”. It was a transition brought about by newer challenges and opportunities. The year started off with a LAICO retreat in which the idea of Aravind Eye Care System reaching an annual volume of a million surgeries was first discussed. The increasing need for developing additional human resource and enhancing the capacities of the existing eye care personnel has opened up new training opportunities. Most of the 200 eye hospitals, that underwent the capacity building process, have now grown to a stage to offer sub-specialty services in the areas of Diabetic Retinopathy, paediatric eye care, eye banking, training, etc. This has opened up new areas for capacity building and is taking it to a new dimension.

The momentum building up in eye care under the VISION 2020 initiative is necessitating the development of new models of service delivery, thus throwing open new research and project opportunities. All this has led to a complete restructuring of LAICO which is now organised as Consultancy, Training, Research and Projects divisions, all with a clear mandate. The Administrative team is also reorganising itself as a division to provide the required support to all these divisions pro-actively. While the various divisions are accountable for achieving their goals, LAICO continues to function in harmony as a matrix organisation when it comes to participating in specific activities. The dream of becoming a “million surgeries a year-organisation” has been put into an actionable path and a special planning tool has been developed by Simon Chatter, an assignee from Halifax Bank of Scotland, sent by ‘Adopt-a-Business’. The strategies include both effecting Aravind’s expansion and managing of eye hospitals coming up in areas of need. Necessary foundation for developing the systems and leadership personnel is falling in place. The process of internal alignment towards this visionary goal is in progress. The first eye hospital ‘Indira Gandhi Eye Hospital & Research Centre’, under the paradigm of ‘managed hospitals’ was conceived, developed and made operational within a period of 7 months and was inaugurated on December 4. The M.P. Birla Eye Hospital started in 2001 in Kolkata with Aravind’s active involvement has also been brought under this paradigm.

A “LEADership Enhancement Programme – LEAP” is in place to bring out and hone the leadership qualities at all levels. A Fellowship in eye care management was initiated to develop future management

leaders. The current batch has seven fellows in the programme. Over 30 mid-level ophthalmic personnel have been identified and are undergoing leadership training.

The Consultancy division is now directly attracting several eye hospitals and programmes which are seeking capacity development or evaluation services. In collaboration with Sight Savers and ORBIS International, the capacity building services in the areas of Diabetic Retinopathy and paediatric eye care have become a standard offering.

The reorganisation of LAICO conceived during the year is firmly in place. New team members have come on board. These divisions have achieved a lot this year. The LAICO report this year reflects this reorganisation and the achievements with the team looking forward to new opportunities and challenges to make a difference.

Including the 22 Eye Hospitals in India and 3 from China that joined in this year, the total number of LAICO Partner hospitals has risen to 200.

#### EYE HOSPITALS THAT JOINED LAICO PARTNERSHIP FOR CAPACITY BUILDING IN 2005

##### Lions Supported Eye Hospitals

- Durgapur Welfare Trust, Durgapur, West Bengal
- Lions Club of Bargarh, Bargarh, Orissa
- Bholanath Memorial Eye Hospital (Contai), Medinipur, West Bengal
- Lions Vision Care, Patna, Bihar
- Diwaliben Mehta Suri Lions Eye Care Centre, Birbhum, West Bengal
- Charmakki Narayana Shetty Hospital, Udupi, Karnataka

##### Sight Savers Supported Eye Hospitals

- Jeevandan Medical Centre, Nainital, Uttranchal
- Samaritan Social Service Society, Satna, Madhya Pradesh
- Asha Kiran Society, Koraput, Orissa
- Gomabai Netralaya & Research Centre, Neemuch, Madhya Pradesh
- Ayodhya Eye Hospital, Faizabad, Uttar Pradesh
- SUSRUT Eye Foundation, Kolkata, West Bengal
- Swami Vivekananda Youth Movement, Mysore, Karnataka
- Rotary Charity Trust, Malegaon, Maharashtra
- Sankara Eye Hospital, Pammal, Tamil Nadu

##### ORBIS Paediatric Workshop Hospitals

- Srikiran Institute of Community Ophthalmology, Kakinada, Andhra Pradesh

##### SSI - DR Workshop Hospitals

- Shri Jagdamba Charitable Eye Hospital, SriGanganagar, Rajasthan
- Ophthalmic Mission Trust Dahod, Gujarat
- Sewa Rural, Jhagdia, Gujarat
- Government Medical College Patiala, Punjab
- Shankar Foundation, Vizag, Andhra Pradesh
- Thulsi Eye Hospital, Nashik, Maharashtra

##### Other Hospitals

- Peking University Eye Centre, Haidian, Beijing, China
- Kai Feng Eye Hospital, Kai Feng City, He Nan Province, China
- Shan Dong Medical College Eye Hospital, Lin Yi City, Shan Dong Province, China

## I. CONSULTANCY DIVISION

### CONSULTING & CAPACITY BUILDING SERVICES

Today, a major part of LAICO's work centers around capacity building for other eye hospitals in collaboration with INGO's like Lions International, Sight Savers International, CBM International, IEF, ORBIS International, Seva Foundation and the World Health Organization. In 2005, LAICO took up partnering with twenty six more eye hospitals in their capacity building effort, bringing the total of partnering hospitals to 200.

The capacity building process consists of three phases:

- A LAICO-Aravind team makes the **needs assessment visit** to these hospitals
- Following that, a multidisciplinary team from the hospitals attend a six day **capacity building workshop** at LAICO to develop strategies to enhance the quality and effectiveness of eye care services provided
- Six months later, the LAICO-Aravind team makes a **follow-up visit** to provide further support to implement their action plan

All the partnering hospitals send a monthly performance report to LAICO with information to gauge the effect of the capacity building process and to plan further support.



*Mr. R.D. Thulasiraj and Mr. R. Meenakshi Sundaram with Dr. Magrabi in Egypt*

### NEEDS ASSESSMENT VISITS IN 2005

#### **In Cairo, Egypt**

April 10-24

Mr. R.D. Thulasiraj and Mr. R. Meenakshi Sundaram went to review the functioning of Magrabi Eye Hospital run by the Al Noor Foundation. Mr. David Green, Ms. Suzanne Gilbert and Mr. Raheem were also there in the discussion with senior staff focusing on development of strategies. Mr. R. Meenakshi Sundaram stayed on longer to make field visits for a more in-depth study of the outreach activities. He offered several suggestions to improve their outreach

activities. One of the recommendations was for Aravind and LAICO to carry out a more detailed analysis of the entire operations of the hospital to improve its efficiency.

December 15-18

As a follow-up on the recommendation of the earlier visit, Mr. R.D. Thulasiraj, made a

*Mr. R.D. Thulasiraj, Dr. Suzanne Gilbert, Mr. Bahaa Sabri, Dr. R.D. Ravindran, Dr. Pararajasegaram, Mr. David Green, and Mr. Ganesh Babu in Cairo, Egypt*



second visit to Magrabi Eye Hospital along with Dr. R.D. Ravindran and Mr. Ganesh Babu to assess the utilisation of existing infrastructure, suggest improvements for increasing productivity with the available resources and to develop long term plan for growth. During this visit, the team reviewed various activities planned during earlier meetings and their progress. At the end of the visit, the team presented a report on the assignment covering the scope of overall capacity development of the organisation.

#### **In Bangladesh**

September 20-25

Headquartered in Dhaka, Centre of Mass Education for Science (CMES) works across the country with the objective of providing science and technology education to disadvantaged communities, with a view to equip them with the technical skills necessary to lead a successful, healthy life. Ms. Sasipriya, Dr. Suzanne Gilbert and Mr. Nagarajan visited the CMES to explore the feasibility of setting up rural eye care services.

The team held discussions with officials from Grameen Bank and Grameen Kalyan (Health) to discuss the possibility of setting up an eye hospital. Collaborating partners for this initiative will be Aravind, SEVA Foundation (Centre of Innovation) and Project Impact, based in the USA.

The team also met Ms. Ispahani, Advisor, Islamia Eye Hospital, Dhaka to understand the progress made by the hospital since the vision building workshop at LAICO in March 2004.

#### **In Janakpur, Nepal**

November 6-10

Shri Janaki Eye Hospital, a well performing eye hospital in Janakpur, Nepal has sought LAICO's support to become self sustained and to expand into a tertiary care centre. Dr. V. Narendran and Mr. Keerti Pradhan made a visit there for on-site assessment and consultancy support. During the visit they also met the Board of Trustees and the founders of Nepal Red Cross Society (NRCS) and Swiss Red Cross (SRC).

*Ms. Nigir Dil Nahar, Ms. Sasipriya, Mr. Dayan, Mr. Deepak Barua, Dr. Suzanne Gilbert, Ms. Daisy, Mr. Mohammed Ibrahim and Mr. Nagarajan*



#### **In Mumbai**

November 15-16

A team consisting of Dr. Sundaresh, Mr. Keerti Pradhan and Ms. Sasipriya visited Lotus Eye Hospital to assess the functioning of the hospital in general and paediatric ophthalmology in particular as part of ORBIS supported paediatric ophthalmology capacity building project.



Mr. Keerti Pradhan with Mr. Dillip Sanghvi, MD, SUN Pharma Foundation

### In Amreli, Gujarat

November 26-27

SUN Pharma, a leading pharmaceutical company based in Mumbai has sought LAICO's help to establish an eye hospital at Amreli in Sourashtra region of Gujarat. Mr. Keerti Pradhan and Mr. Venkatesh visited the region to assess the potential for an eye hospital there and presented their assessment to the Chairman and Managing Director of SUN Pharma.

### CAPACITY BUILDING WORKSHOPS IN 2005

#### Manpower and Management Development Workshops

#### For Eye Hospitals Supported by Lions International:

August 1-6

Twenty members from the following Lions Eye Hospitals participated:

1. Lions Care Centre (Eye Hospital Unit), Lions Club of Durgapur Welfare Trust, West Bengal
2. Lions Club of Bargarh, Lions Eye Hospital, Bargarh, Orissa
3. Bholanath Memorial Eye Hospital, Purba Medinipur, West Bengal
4. Lions Vision Care, Patna
5. Diwaliben Mehta Suri Lions Eye Care Centre, Birbhum District, West Bengal



Participants of the Workshop on Standardisation of Clinical and Administrative Procedures

#### Workshop on Standardisation of Clinical and Administrative Procedures

#### For Eye Hospitals supported by Sight Savers International:

September 19-24

Twenty one members from the following hospitals in India participated:

1. Jeevandan Medical Centre, Nainital, Uttaranchal
2. Samaritan Social Service Society, Satna, Madhya Pradesh
3. Asha Kiran Society, Koraput, Orissa
4. Gomabai Netralaya & Research Centre, Neemuch, Madhya Pradesh

Participants of Lions Manpower and Management Development Workshop with LAICO faculty



5. Ayodhya Eye Hospital, Faizabad, Uttar Pradesh
6. SUSRUT Eye Foundation, Kolkata, West Bengal
7. Swami Vivekananda Youth Movement, Mysore, Karnataka
8. Rotary Charity Trust, Malegaon, Maharashtra
9. Sankara Eye Hospital, Pammal, Tamil Nadu

## VISION BUILDING AND STRATEGIC PLANNING WORKSHOP

November 3-9

A total of 14 participants from the following eye hospitals in China and Karnataka, India participated in the workshop:

1. Peking University Eye Centre, Beijing
2. Kai Feng Eye Hospital, He Nan Province
3. Shan Dong Medical College Eye Centre, Shan Dong Province
4. Charmaki Narayan Shetty Memorial Lions Eye Hospital, Kota, Udupi

## CAPACITY BUILDING FOR SPECIALITY SERVICES

### CAPACITY BUILDING FOR PAEDIATRIC OPHTHALMOLOGY SERVICES

#### ORBIS-Vision Building Workshop for Paediatric Ophthalmology Services

January 30-February 2

Participating Hospitals:

1. Lions NAB Eye Hospital (Vivekanand Netralaya), Maharashtra
2. Srikiran Institute of Ophthalmology, Andhra Pradesh

Supported by ORBIS, this course focused on developing the participating eye hospitals into centres of excellence in paediatric ophthalmology, and also to develop them as sustainable eye care programmes. A team consisting of chairman, ophthalmologist, administrator and paramedical staff from each of these hospitals attended the workshop. It facilitated practical exposure to different dimensions of eye care delivery such as magnitude of the problem, service marketing, protocols and procedures and financial viability which are the foundations of an effective eye care delivery system. Besides the class room learning they were exposed to paediatric eye camps and different sections of the Paediatric Ophthalmology

*Participants of ORBIS- Vision Building Workshop for Paediatric Ophthalmology Services*



*Dr.P.Namperumalsamy addressing the participants of Vision Building and Strategic Planning Workshop*







*Participants of the first capacity building for Diabetic Retinopathy services workshop with LAICO and Aravind faculty*



*Participants of Capacity Building for Diabetic Retinopathy Services Workshop at the centre for Reading and Grading of fundus images for Diabetic Retinopathy at Aravind-Madurai*

Department in Aravind-Madurai. During the workshop, the participants developed a detailed plan of action.

#### **CAPACITY BUILDING FOR DIABETIC RETINOPATHY SERVICES**

Two capacity building workshops focusing on Diabetic Retinopathy for Sight Savers International supported hospitals were organised at LAICO, in 2005.

A team of three including the Trustees/Key Decision Maker, Ophthalmologist, and Community Outreach Worker from each hospital participated in the workshop. The workshop aimed at developing a vision amongst the Eye Hospitals and translating them into time bound strategies. The workshop facilitated practical exposure to different dimension of Diabetic Retinopathy services such as magnitude, infrastructure, clinical protocols & community interventions.

#### **Participating Eye Hospitals: July 1-4**

1. Venu Eye Institute, New Delhi
2. LKC Jagdamba, Sri Ganganagar, Rajasthan
3. Rotary Club of Cuttack Charitable Trust, Cuttack, Orissa
4. Vivekananda Mission Asram, Midnapur District, West Bengal
5. Muzaffarpur Eye Hospital, Muzaffarpur, Bihar

#### **December 2-4**

1. Ayodhya Eye Hospital, Faizabad, Uttar Pradesh
2. Ophthalmic Mission Trust, Dahod, Gujarat
3. Sewa Rural, Jhagadia, Gujarat
4. Gombai Netralaya & Research, Neemuch, Madhya Pradesh
5. Government Medical College, Patiala, Punjab
6. Rotary Netra, Vizag, Andhra Pradesh
7. Shankar Foundation, Vizag, Andhra Pradesh
8. Thulsi Eye Hospital, Nashik, Maharashtra
9. Shankar Eye Hospital, Pammal, Tamil Nadu



*Mr. Keerti Pradhan, Dr. N. Venkatesh Prajna and Dr. P.M. Aravind with staff at the University College hospital, Ibadan, Nigeria*

## CAPACITY BUILDING FOR RESIDENCY TRAINING

### Visit to University College Hospital

Ibadan, Nigeria, Africa, October 23-30

As part of the capacity building of ophthalmology residency training in developing countries under IAPB-ZEISS grant, Dr. N. Venkatesh Prajna, Dr. P.M. Aravind and Mr. Keerti Pradhan visited University College Hospital at Ibadan, Nigeria, the largest teaching hospital in West Africa.

The objectives of the visit were:

- to identify the faculty development needs, equipment requirement and other systems that need to be in place to further enhance the training to the Ophthalmology Residents.
- to identify the strategies and actions required to enhance the volume and quality of patient care to a level required for good residency training.

## FOLLOW-UP VISITS IN 2005

### Under the ORBIS Projects for Capacity Building in Paediatric Ophthalmology

#### To Chitrakoot

March 11

LAICO and Aravind have a long relationship with Sri Sadguru Netra Chikitsalaya (SNC) Eye Hospital, Chitrakoot. In the recent years, it has been towards developing their Paediatric Ophthalmology Department. Dr. P. Vijayalakshmi made a follow-up visit to SNC. She demonstrated two strabismus surgeries to the hospital staff and also addressed them on the issue of childhood blindness stressing its magnitude and implication in their own region.

#### To Lions NAB Eye Hospital, Miraj, Maharashtra

November 17-18

Dr. Sundaresh and Ms. Sasipriya visited Lions NAB Eye Hospital for a follow-up visit. Involving anganwadi workers, the hospital outreach programme had succeeded in screening the non-school going children in Miraj Taluk. At the time of the visit, the hospital had screened over 40,000 children at the hospital and through the outreach camps.

Dr. Sundaresh interacted with the paediatric ophthalmologists and paramedic team and also took a session on squint management. A field visit was undertaken by Ms. Sasipriya along with Mr. Badekar to meet with the anganwadi workers. Mr. Deshpande and Dr. Anil Kulkarni, as part of the senior management, also met the Aravind team.

#### To Srikiran Institute of Community Ophthalmology, Kakinada

December 5-6

As part of the Capacity Building Programme under Aravind-ORBIS Paediatric Ophthalmology Learning and Teaching Initiatives Project, Dr. Shashikant Shetty and Ms. Sasipriya made a follow-up visit to

Srikiran Institute of Ophthalmology to understand developments/improvements that have taken place in running the paediatric ophthalmology service. Suggestions were provided for the current challenges faced in implementing the paediatric eye care services effectively.

#### **Under the Lions SightFirst Grant, Supported by Lavelle Fund**

##### **To Blantyre, Malawi**

March 17-April 11

A team consisting of Mr. R. Meenakshi Sundaram, Mr. Ganesh Babu, Mr. Keerti Pradhan, Dr. Thiruvengkatakrisnan, Ms. Guruparvathi and Ms. Chitra visited Lions SightFirst Eye Hospital, Blantyre, Malawi.

The clinical staff of the team trained the nurses to assist the surgeons in performing Small Incision Cataract Surgeries (SICS) and Trabeculectomy Surgeries. Different strategies were discussed and implemented to improve the performance of the eye camps and reduce the cost of conducting eye camps. Workflow was reviewed and standardized in certain areas and systems were developed to capture all necessary data for generating day-to-day and periodical information. A set of Microsoft Excel based utilities were developed and implemented to record the data and generate all the necessary information. The main focus was on areas related to effective utilisation of manpower, developing alternative strategies for attracting patients from remote areas, attracting more paying patients and developing team spirit among the staff.



*Aravind-LAICO team in Lions SightFirst Eye Hospital, Blantyre, Malawi*

#### **OTHER EMERGING ACTIVITIES – PROGRAMME ASSESSMENT AND EVALUATION**

##### **In Kabul, Afghanistan**

April 15-24

Mr. Keerti Pradhan visited ‘SERVE’, in Kabul, Afghanistan with support from Dark & Light, Netherlands to assess and evaluate their Community Eye Care work.

##### **In Shivpuri and Satna, Madhya Pradesh, India**

June 6-11

Dr. Manoranjan Das and Mr. B.S. Ganesh Babu visited the two Sight Savers International supported hospitals - Shri Padam Sambhav Eye Hospital in Shivpuri and Samaritan Netra Deepti in Satna to assess their clinical practices, administrative procedures and overall performance.

##### **In Pipad, Sri Ganganagar and Nokha, in Rajasthan**

December 15 -16

Dr. Arun Kumar and Mr. S.P. Venkatesh visited the three Sight Savers International supported hospitals in Rajasthan - Shree



*Mr. Keerti Pradhan in Afghanistan*

Pramatma Chand Bhandari (PCB) Hospital, Pipad, LKC Jagadamba Charitable trust, Sri Ganganagar and Urmul Jyothi Eye Hospital, Nokha to assess their Clinical, Non-Clinical and Management Protocols, Procedures and Systems in the hospital.

#### In Barmer, Rajasthan

August 5 - 6

Dr.R.D.Ravindran and Mrs.Vargheese went to Barmer Jan Sewa Samity (BJSS) Hospital, Barmer, to help standardise the cataract surgery protocols and sterilisation procedures. Following the visit, they conducted a workshop on Standardisation of cataract surgery protocols and sterilisation procedures for the Sight Savers International (SSI) partner hospitals in Rajasthan. 20 staff members including the head of the institutions from 10 SSI supported hospitals attended the workshop.

*Normally, when we walk or drive, we can see the first bend; but when we fly, we can see the entire road.*

*Likewise, as a manager, this workshop has elevated our thinking process to a higher place so that we can now have perception from a different level.*

*Dr. G. Chandrasekhar, Hon. Superintendent, K.B. H. Bachooali Charitable Ophthalmic & E.N.T. Hospital, Mumbai.*

*- a participant of 'Management Priorities in Eye Care Delivery' Course.*

## II. TRAINING DIVISION

LAICO offers management training for all cadres of eye care personnel. Various courses were conducted throughout the year with the flagship courses being the Management Priorities in Eye Care Delivery intended for the heads of eye hospitals and Management Training for Eye Care Programme Managers which draws participants from various ministries as well as from INGOs.

### MANAGEMENT TRAINING IN EYE CARE DELIVERY

#### Management Priorities in Eye Care Delivery

January 23-29

This is a short term intense training programme to strengthen the management perspectives of the heads of eye hospitals. The programme aims to impart management skills necessary to help them

in planning, monitoring and evaluation of the programme to increase their efficiency and productivity by optimally utilising the available resources.

Prof. Fred Munson, Dr. Nirmala Murthy, Mr. G. Balasubramanian, Prof. Vasanthi Srinivasan were the Guest Faculty for the course. A group of 32 participants from India, Bangladesh, Nepal, Bolivia, Nigeria, Kenya, Venezuela, Ethiopia and Equador participated in this programme.

*Participants of Management Priorities in Eye Care Delivery course with faculty*





*Participants of Management Training for Eye care Programme Managers course*

### Management Training for Eye care Programme Managers

February 21–March 4

The objective of this training is to enable the participants acquire knowledge, skills and attitude to become effective in the eye care programme management. It helps the candidates to learn to assess the magnitude of the problem and its implications and understand the gaps in service levels and issues relating to requirement and actual availability of resources. It also helps to understand factors and chal-

lenges specific to eye care in programme development.

Dr. Suzanne Gilbert, Mr. D. Nagarajan, Dr. Nirmala Murthy, Dr. Pararajasegaram, Dr. Steve D. Miller, Mr. G. Shanmuganathan were the Guest Faculty for the course. Mr. Iraianbu, IAS, Commissioner for Disciplinary Proceedings, Madurai gave a guest lecture on community participation. A group of 30 persons from Sierra Leone, South Africa, Nigeria, Tibet, Bangladesh, Cambodia, Armenia, Uganda, Kenya, Tanzania, Ethiopia, Afghanistan, Malawi and India participated.

### Management Training and Systems Development for Hospital Administrators

This course is designed to give exposure and training in the best practices for 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. Two courses were held in 2005 – 10th batch (March 1– April 9) and 11th batch (October 1 – November 10).

There were thirteen participants for the tenth course, of which nine were from India and one each from Zambia, China, Cameroon and Kenya. A total of 20 persons from India, Bangladesh, Peru,

Ecuador, Cambodia, East Africa and Tanzania, participated in the eleventh course.

### TRAINING IN COMMUNITY OUTREACH

#### Certificate Course on Community Outreach and Social Marketing in Eye Care Services

The course is aimed to train people responsible for managing

*Dr. G. Venkataswamy addressing the participants of Certificate Course on Community Outreach and Social Marketing in Eye Care Services*



outreach programmes and eye camps in Government, Private, NGO and Charitable hospitals. The course is designed to enhance the knowledge and skills for developing capacity to plan and manage the outreach programmes in a most effective and efficient manner. Besides the class room teaching, the participants spend most part of their time in going to the community and camp sites, learning through observation and working along with the Aravind staff. Two courses were held this year - 17th batch (June 15-July 14) & 18th batch (November 15-December 14). Seventeen participants from India, Nepal, Bangladesh and Afghanistan were trained in these two batches.

#### OTHER TRAINING PROGRAMMES

##### FELLOWSHIP PROGRAMME IN EYE HOSPITAL MANAGEMENT (AN ACTIVITY UNDER THE LEADERSHIP ENHANCEMENT PROGRAMME-LEAP)

“Health initiatives in developing countries often fail not because of scientific knowledge but of lack of managerial competence.”

Realising this fact, LAICO has developed a comprehensive training programme, Leadership Enhancement Programme (LEAP), that would focus on developing appropriately trained human resource both in clinical and management areas for leading eye care programmes. In the clinical side the training focuses on building the capacity in administrative skills of the paramedical personnel. In the non-clinical area a Fellowship Programme in Eye Hospital Management has been started. The aim of this programme is to attract young health management professionals with leadership potential and train them for meeting the requirements of Aravind and its partner institutions.

The training for the Fellows has been designed to provide

structured inputs on the clinical, management and community aspects of eye care; to develop the managerial skills and capacities; to interact and network with experts in the field of health management and eye care; interact with community organizations & INGOs. On the job training would be given in all the administrative and clinical areas (including the sub-speciality areas) of the system. They would thus be groomed in the mould of Aravind’s culture and

*The first batch of students for the Fellowship Programme in Eye Hospital Management*





*Mr. Poornachandran with the Instrument Maintenance trainees in Kenya*

system. They will also be posted in an outside hospital in order to give an exposure to a different system and also to equip them to work in different environments. The first batch began on July 11, 2005 with seven Fellows. These fellows on completion of the training will be employed as managers in various areas according to the aptitude, skills and the requirement in the system. Dr. Sandra Dratler and Dr. Kristiana Raube, University of California, USA were here from July 18-23, to review LEAP.

## OFF-SITE TRAINING

### OPHTHALMIC EQUIPMENT MAINTENANCE TRAINING

#### In Kenya

February 7-March 21

The Kikuyu programme was the third overseas programme of its type conducted by the Instruments Maintenance Department. The training was offered by Prof. V. Srinivasan, Mr. Poornachandran and Mr. Sridhar. The participants were from Kenya, Tanzania, Uganda, Malawi, Cameroon, Ethiopia and Nigeria. The Instruments Maintenance camp at the Provincial Government Hospital, Neyri and a second camp at Consolata Mission Hospital near Neyri gave the trainees an opportunity to put their recently acquired skills to use.

Prof. V. Srinivasan was invited by the Ophthalmic Society of East Africa to give a talk on Instruments Maintenance to its members on March 10.



*Mr. Poornachandran with the Instrument Maintenance trainees in Bangladesh*

#### In Chittagong, Bangladesh

September 23-30

Prof. V. Srinivasan and Mr. S. Poornachandran conducted an Instruments Maintenance Course for the Senior Paramedics of Bangladesh National Society for the Prevention of Blindness (BNSB) at Chittagong Eye Infirmary. Seven participants from different parts of Bangladesh of BNSB hospital participated.

#### In Hanoi, Vietnam

October 23-29

Prof. V. Srinivasan was at the National Institute of Ophthalmology, Vietnam to evaluate the Instruments Maintenance Training Course being conducted by the trainers trained at Aravind-Madurai.



*Prof. V. Srinivasan with the trainees in Vietnam*

*Mr. Keerti Pradhan offering Eye Care Management training in South Africa*

### EYE CARE MANAGEMENT TRAINING FOR VISION 2020 COMMUNITY EYE HEALTH COURSE PARTICIPANTS

Cape Town, South Africa, September 5-9

Mr. Keerti Pradhan was invited to teach the management module of the VISION 2020 community eye health course. The week long module covering core concepts in eye care (Quality, Sustainability and Service Marketing). At the end of the module, participants were able





*Mr. Selvakumar with the optical dispensing course team in Bangladesh*

*Dr. P. Namperumalsamy lighting the lamp at PRISM 2005*

to develop a district plan for comprehensive eye care services that would cover a population of one million. There were 20 participants from Botswana, Mozambique, Malawi, Madagascar, South Africa, Uganda, Zambia and Zimbabwe.

#### TECHNICAL ASSISTANCE IN DEVELOPING AN OPTICAL DISPENSING COURSE

Dhaka, Bangladesh, September 28–October 4

State University of Bangladesh, a private university in Dhaka intends to offer a three month optical dispensing course. ORBIS Bangladesh invited LAICO to provide technical assistance in developing this course. ORBIS is to support and run this short-term course with State University of Bangladesh (SUB).

Mr. Selvakumar, Faculty, Department of Optometry went as the technical consultant. During his visit, he met ophthalmologists, ophthalmic assistants and optical workers from various reputed eye hospitals and optical shops to understand the current status of optical service and what is expected of them. He prepared and submitted a detailed syllabus, training schedule and helped the University to set up an optical training lab. ORBIS Bangladesh signed an MOU with LAICO for this project.

#### CONTINUING PROFESSIONAL EDUCATION PROGRAMMES

##### PRISM 2005 - ANNUAL MANAGEMENT MEET FOR HOSPITAL MANAGEMENT STUDENTS AND PRACTICING ADMINISTRATORS

LAICO, April 16

This was organised by the students of PGDHM as a co-curricular activity in the Managerial Skills Module. The sessions focused on Operations Management, Marketing, Human Resource Management, Quality and Health Insurance. The Guest Faculty included:

- Dr. Rana Mehta, Asst. Vice President, Apollo Hospitals, Colombo
- Mr. K. Raman Kutty, Executive Director, Health Action by People, Govt. of Kerala
- Mr. Zahid Hussain, Manager-Operations, Apollo Hospitals, Ahmedabad
- Mr. Sunil Karanjikar, Deputy Director, Personnel and HR, P.D. Hinduja National Hospitals & MRC, Mumbai
- Mr. T.N. Sekar, General Manager, Apollo Hospitals, Madurai
- Ms. Sarumathy, Quality Service Manager, Meenakshi Mission Hospital and Research Centre, Madurai

Over 140 candidates including students from various institutions of South India participated in this event.

##### FIRST LAICO ALUMNI MEET

April 17

The management of Aravind Eye Care System, students of Post Graduate Diploma in Hospital Management and the participants of the one month Management Training & Systems Development for



*Mr. K. Raman Kutty, Dr. Rana Mehta, and Mr. Sunil Karanjikar at PRISM 2005*

*First LAICO Alumni Meet*





Hospital Administrators jointly started an Alumni Association. The first meeting was held on April 17. Ms. Mythili, PGDHM student 2004-2005 and Mr. Reetesh Choudhary, PGDHM 2004-2005 spoke about the meet and introduced the members present at the meet. Mr. R. D. Thulasiraj highlighted the purpose of the Alumni Association and its function.

The participants named the Alumni Association “LAHMA”- LAICO Alumni for Hospital Managers and Administrators. The objectives of LAHMA is to develop a network among the Alumni to share and provide updates on health care management through journals and magazines and initiate placement services.

### INTERNAL CAPACITY BUILDING

#### CONSULTING FOR CAPACITY MASTER CLASS CREATING THE MECHANISMS FOR TRANSFERRING BEST PRACTICE ON A WORLDWIDE SCALE

November 29-30

With “managed hospitals” as a growth strategy and increased involvement in consultancy, LAICO recognised the need for faculty members and ophthalmologists involved in consultancy to sharpen their skills as Consultants who can influence the direction and activities of others. The workshop aimed to provide practical experience with participants working in pairs on a live issue.

The facilitators for this workshop were Mr. Colin Williams and Mr. John Bickell from W2 Consulting, UK- experienced consultants who are long time associates and well wishers of Aravind. John Bickell was responsible for starting the India Community Affairs Programme in Allied Dunbar (now ZFS). Collin Williams was the first assignee from

*Aravind and LAICO consultancy division faculty members with Mr. Collin Williams and Mr. John Bickell, W2 Consulting, UK*



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Allied Dunbar to Aravind and he helped shape the LAICO consultancy programme for partner hospitals.

Eighteen members from across the five Aravind Eye Hospitals and LAICO participated in the workshop. The participants came prepared for the workshop with issues that they would work on during this workshop. During the first day the participants listed down a set of problems they faced in various areas. The issues were categorised and addressed within the consulting framework. The contracting model was discussed, following which, each participant with guidance from the trainers, developed action plans to address the consulting issues in an efficient way.

### III. 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 constant training and capacity building.

The main areas of work under this division will be to develop the right approaches to Project Development & Management, evaluation of the projects, and provide Project Management Training.

#### CARE (Creating Access for Rural Eye Care Project)

The CARE programme seeks to bring about a sustainable change in the health-seeking behavior of the community.

A one year pilot project covering a population of 100,000 in Nellikuppam block in Panruti Taluk in the service area of Aravind - Pondicherry was implemented last year. Another pilot project was launched at Aravind-Madurai on May 1, as an extension of the CARE project at Pondicherry. This project, which is a community based initiative supported by Essilor India seeks to influence the health seeking behaviour and increase the sustainability of the outreach activities and at the same time increase the uptake of eye care services in the rural areas. The project area constitutes 28 revenue villages within a 10 km. radius around the newly established Community Eye Clinic in Melur. The area includes Melur and Kottampatti Blocks. The field workers will remain in this area throughout the year monitoring the uptake of eye care services by the community. They are identifying patients with notable eye problems and referring them to the eye care facility to obtain adequate intervention. These patients are utilising Aravind Community Eye Clinic at Melur for outpatient services and Aravind-Madurai for speciality care and inpatient services.

## IV. RESEARCH DIVISION

### EPIDEMIOLOGICAL STUDIES AND COMMUNITY PROJECTS

#### Epidemiology of Age-related eye diseases in India-INDEYE

Cataract and Age-Related Macular Degeneration (ARM / AMD) are the major causes of vision impairment and blindness worldwide and occur almost exclusively in the older population. This multicentric study is done in collaboration with London School of Hygiene and Tropical Medicine led by Dr. Astrid Fletcher. It covers a population of 6000 people aged 60 years and above at 2 centres, one at RP Centre, Delhi and the other at Aravind Eye Hospital, Pondicherry. Each centre will examine 3,000 patients at the clinic. Started in January 2005, the study is expected to be completed by August 2006.

#### Diabetic Retinopathy Survey

On May 10-12, Mr. R.D. Thulasiraj, Mr. Karthick Prakash, Dr. R.D. Ravindran, Dr. Badrinath and Ms. Hema attended the INDEYE Study Review Meeting at Dr. R.P. Centre, Delhi.

### CONFERENCES ATTENDED

#### Guest Lecture

Indian Institute of Management, Ahmedabad, February 10

MR. R.D. THULASIRAJ

- *Marketing in health care*

#### Orientation Prog. for Policy Makers

(organised by ORBIS)

Indian Institute of Management, Kolkata, February 12

MR. R.D. THULASIRAJ

- *National Programme for control of blindness: Rationale and effectiveness*

#### CII conference on "Building Partnerships between Society & Corporate Sector"

Mumbai, February 16

DR. P. NAMPERUMALSAMY

- *Sustainable social development through innovation and collaboration – Public – Private partnership in social projects/health*

#### Seminar

Indian Institute of Management, Ahmedabad, February 17

DR. P. NAMPERUMALSAMY

- *The role of information technology in eyecare/health*

Mr. R.D. Thulasiraj participated in the **Human Resource Working Group Meeting** in Dubai, April 8-9

#### The Advanced Clinical Engineering Workshop

organised by ORBIS International, American College of Clinical Engineering, Ministry of Health, Jamaica and Pan American Health Organization was held at Kingston, Jamaica on April 11-15.

Prof. V. Srinivasan was a Faculty Member for the Workshop and lectured on

- *Instruments Maintenance and Instruments used in Ophthalmology*
- Thirty-six technicians from different Caribbean countries participated

#### Curso Internacional De Salud Ocular Comunitaria

Lima, Peru, May 16-19

The meeting was organised by CBM to prepare the launch of VISION 2020 programme at Peru. This was a four day conference attended by hundred ophthalmologists from Peru, Equador, Cuba and other countries. Dr. S. Aravind attended the conference.



Prof. V. Srinivasan as a faculty member in the workshop in Jamaica



Mr. Keerti Pradhan in Spain

### 5th World Congress of International Health Economics Association

Barcelona, Spain, July 10 - 14

MR. KEERTI PRADHAN

- *Impact of vision correction- Policy and economics of health*

### Acumen Fund Conference

Bellagio, Italy, July 25-29

MR. R.D. THULASIRAJ

- *Building Sustainable Enterprises for the poor: Best practices and Lessons for the field*

### Seminar Programme

National Institute of Advanced Studies (NIAS), Bangalore, August 4

MR. R.D. THULASIRAJ

- *Leadership in Aravind Eye Hospitals*

Mr. R.D. Thulasiraj attended the **IAPB Council of Members Meeting** in Hanoi, Vietnam, September 12-17

Mr. R.D. Thulasiraj participated in the community ophthalmology session of **10th Dr. R.K. Seth Memorial Symposium** in Venu Eye Institute, New Delhi, September 29- October 2

DR. P. NAMPERUMALSAMY

PANELIST SESSION VIII: DIABETIC RETINOPATHY

- *Strategies in Diabetic Retinopathy: Screening*

### IIM Calcutta Workshop

Organised by IIM Alumni, Calcutta, October 21

MR. R.D. THULASIRAJ

- *In Service for Sight: Aravind Eye Hospital*

Dr. R.D. Ravindran at the VISION 2020 workshop for CBM in New Delhi



### International Seminar on Strategic Issues and Challenges in Health Management

IIM, Ahmedabad, November 24-26

MR. KEERTI PRADHAN

- *Aravind Capacity Development Model*

Mr. R.D. Thulasiraj attended the **National Conclave of Lions Eye Hospitals**

in Ahmedabad, December 26-27

### VISION 2020 Workshop for CBM (SARO-N) partner hospitals

New Delhi, April 21-23

Mr. R. D. Thulasiraj, Dr. R. D. Ravindran and Mr. Muralikrishnan went as faculty. Fifty participants representing 28 hospitals participated in this workshop. The workshop included discussions on global blindness, VISION 2020, core concepts of eye care, cataract, refractive errors, low vision, glaucoma, diabetic retinopathy. They developed plans to combat three major diseases; cataract, refractive errors and diabetic retinopathy.

### National Workshop on Resource Mobilization

L.V. Prasad Eye Institute, Hyderabad, May 26-27

The workshop was organised by VISION 2020: The Right to Sight-India, in association with L.V. Prasad Eye Institute, Hyderabad.

MR. R.D. THULASIRAJ

- *How to run your NGO into a sustainable organisation?*

Mr. R.D. Thulasiraj attended the **Meeting to Formulate VISION 2020 action plan for Tamil Nadu in Chennai**, June 14

### VISION 2020: Right to Sight Workshop on Community Eye Health

L.V. Prasad Eye Institute, Hyderabad, August 25-27

Mr. R.D. Thulasiraj participated as a resource person and spoke on

- *Monitoring and evaluating eye care facilities*
- *Appropriate Technology*

## ARAVIND TELE-OPHTHALMOLOGY NETWORK

Aravind Tele-ophthalmology Network (ATN) was launched in 2002 with support from ORBIS and Acumen Fund. Since then, Tele-medicine link has been established between Aravind Eye Hospitals at Madurai, Coimbatore, Theni, Tirunelveli and Pondichery to share the expertise across all the hospitals, and thus reduce patient transportation and manage inadequate specialist availability. Aravind is also using this approach for developing tele-medicine solutions to reach a wider network of ophthalmologists and enhance their skills.

Activities of ATN

- Patient Consultations – Real Time & Store & Forward;
- Education;
- Reading & Grading Centre with Mobile Van & Vision Centres



*Inside the V-SAT van*

Today **real time** consultations are carried out across the Aravind system which includes patient's consultations with experts, Grand rounds (cases of academic interest), Journal club (Clinical research and management articles), Clinical meetings, Special lectures and regular class session. This facility allows Aravind ophthalmologists to interact with faculty in the reputed institutions around the world like Wilmer Eye Institute, Cornell University and Columbia University.

In order to make it affordable to all eye care programmes, Aravind has developed a unique tele-ophthalmology solution, 'eyesTalk – Beyond frontiers'. This uses **Store and Forward** technology to provide second opinion and expert advice. This software supports the integration of digital ophthalmic imaging equipments to capture images. Referring ophthalmologists require a computer attached to the ophthalmic equipment to capture images and internet connectivity to transfer the captured information to the experts. Experts at the other end will review the images and information and share their opinion through the same software. This is currently being tested and used among Aravind Eye Hospitals. Same will be rolled out to other hospitals shortly.

AECS conducts Diabetic Retinopathy camps using the **mobile V-SAT van** to provide retinal diagnostic services to the rural patients. Digital case sheets of the diabetic patients are sent from the mobile terminal through DR software to the Reading and Grading centre in Madurai where all the digital images and information are graded and the opinion is relayed back to the mobile terminal in the van and real time consultation is carried out if necessary.

**Vision Centres** are connected with the base hospital through wireless connectivity to enable direct patient consultation and interaction with the ophthalmologists at Theni.



*At a Grand Rounds Session with Singapore National Eye Centre*

# INFORMATION TECHNOLOGY (IT) & SYSTEMS

Aravind pioneers in using IT for patient care management. It started in 1983 with 2 Apple-II computers used for maintaining patient data, payroll and research data. Then in 1991 on-line patient care management system software was introduced at Madurai with a network of 11 computers. Today Local Area Network is available in all the five Aravind Eye hospitals. A Wide Area Network is in place to share the data among all the hospitals.

The department is functioning under the leadership of Mr.R.D. Thulasiraj, Director-IT & Systems. All Aravind IT activities are managed by a central team at LAICO in coordination with respective satellite hospitals staff. IT & Systems department in each location supports the users, improves the software and works with users for the development of new systems. Central team takes care of new development, improving existing systems and also providing services for other eye hospitals to implement IT.

IT is widely used for the following key applications at Aravind Eye Care System:

- Integrated Hospital Management System software to manage patient care areas.
- Electronic Medical Records (EMR) in Bio-Chemistry and Microbiology Labs
- Community Outreach Management system
- Materials Management system
- Financial Accounting
- Human Resource Management system
- Eyebank Management
- Intranet for sharing information within the organisation
- Tele-Ophthalmology
- Eyestalk – A tool for clinical consultation
- DRAGON: Diabetic Retinopathy Grading Over Network
- Training Courses Management system
- Consultancy Management system
- Research Data Management systems
- Fingerprint based attendance system
- VISION 2020 e-resource

*Various applications of IT & Systems at Aravind*



## **IHMS (INTEGRATED HOSPITAL MANAGEMENT SYSTEM) SOFTWARE & ITS IMPLEMENTATION IN OTHER HOSPITALS**

IT & Systems Department in all Aravind Eye Hospitals takes care of the new development, improving existing systems and also providing consultancy services for other eye hospitals to implement IT. Three software solutions have been developed by the team, namely AUROHMS (Integrated Hospital Management Software), AUROMIS (A mini version of AUROHMS with all basic reports for small hospitals) and AUROCATQA (A tool to monitor outcome of cataract surgeries) and it is being offered to other hospitals.

In 2005, the IT team visited the following hospitals to implement the software customizing it to the requirement of the hospital.

- Mr. Ganesh Babu and Mr. Thirukumar visited H.V Desai Eye hospital, Pune, Maharashtra on January 6-25 and implemented the AUROHMS.
- Mr. Thirukumar visited Sri Sankara Eye Hospital, Pammal, Chennai on May 24-26 and implemented Cataract Quality Assurance Trial version.



*IT Team*



- Mr. Purushothaman visited the Eye Department of Kilimanjaro Christian Medical Centre Hospital, Moshi, Tanzania on June 19, to update software implemented by Aravind in 2003 for registration and medical record management. He trained the respective personnel in the Registration Department in using the software. He also implemented and trained the personnel in using the Cataract Quality Assurance module.
- Mr. Ganesh Babu was in BNSB, Chittagong Hospital and in Islamia Hospital, Dhaka on July 11-17, to present details of the software to the hospital team and observe their current workflow and system to assess the feasibility of implementing Aravind's software and at the end of the visit, a report with a proposal was submitted for this assignment. ORBIS, Bangladesh signed an MOU with LAICO for this assignment.
- Mr. Ganesh Babu, Mr. Kannan and Mr. Thirukumar visited Sri Sanakaradeva Netralaya (SSN), Guwahati, to assess the arrangements for the implementation of the software. The software was implemented on July 20.
- Mr. Kannan and Mr. Thirukumar visited Siliguri Greater Lions Eye Hospital (SGLEH), Siliguri on August 17-27, for implementing the software.
- Mr. Kannan and Mr. Oliver Selvam visited Ahalia Eye Hospital, Kerala on September 27-October 15 and implemented the software.
- Mr. Thirukumar and Mr. Purushothaman visited Dr. Shroff Charity Eye Hospital (Multispeciality hospital), Delhi on October 8-November 4 and implemented the software.
- A team consisting of Mr. Ganesh Babu, Mr. Panneer Selvam, Mr. Thirukumar, Mr. Oliver and Mr. Kannan implemented the AUROHMS in 5 hospitals of Bangladesh National Society for the Blind (BNSB) at Mymensingh, Moulibazaar, Patuakali, Chandpur and Dinajpur. This was carried out over a period of 12 weeks starting on December 2. In each hospital after the implementation there was an observation period for 3 days. In addition, two staff members from each of the hospitals at Moulibazaar, Chandpur, Dinajpur and Patuakali attended a training programme for one week.



*Mr. Ganesh Babu discussing with the administrative staff of Islamia Hospital, Dhaka*



*Mr. Ganesh Babu, Mr. Panneer Selvam and Mr. Kannan discussing with the administrative staff of Bangladesh National Society for the Blind (BNSB) eye hospitals, Bangladesh*



*Mr. Purushothaman at KCMC hospital, Moshi, Tanzania*

## **IT RETREAT 2005**

May 21

A Retreat for the IT personnel was organised to review current Information Technology (IT) activities, develop strategies and specific objectives for 2005-2006. All heads of IT & Systems Departments from all Aravind Eye Hospitals and the central office team at LAICO participated. Mr. Sathya Sankar from Chennai was invited to share his expertise in this regard.

Dr. P. Namperumalsamy, Vice Chairman, Aravind-Madurai and Dr. R.D. Ravindran, Aravind-Pondicherry shared their thoughts and inputs on working towards users' perspective through a video-conferencing session. Several strategies were developed and various areas for IT application was discussed and prioritised. It was decided to have such a meeting every quarter and a review every month.

# HUMAN RESOURCE DEVELOPMENT DEPARTMENT

The Human Resource (HR) team plays an important role in enabling the Aravind Eye Care System to attain its vision to eliminate needless blindness through a variety of services. The HR team's plan is to achieve this by continually fostering a healthy, fair, equitable work environment that will attract and retain excellent employees and enable them to develop to their full potential and promote effective management practices.

*Ms. Asha, Dr. G. Natchiar, Ms. Deepa, Ms. Preethi with Ms. Cindy Harrison, Vice-President-HR, Chelsea Community Hospital*



*Newly recruited MLOP Supervisors & Tutors with LAICO-Aravind Faculty*



The official launching of the department happened on January 7 at the HR workshop facilitated by Ms. Cindy Harrison, Vice President-HR, Chelsea Community Hospital, Michigan, USA. During this workshop which was attended by all the HR and Personnel Department staff of all the five hospitals, a clear cut plan was made relating to all the activities that the HR team should achieve in 2005. Several training programmes were conducted for the staff to help in improving their performance in their jobs. Structured processes were initiated for determining the requirements of various departments. Retreats were planned at services level to think ahead and get organised to realize growth in various dimensions-patient care, teaching, research, etc.

## WORKSHOP ON IMPLEMENTING HUMAN RESOURCE STRATEGIES

April 1-2

The main purpose of the workshop was to take forward the HR strategies framed during Cindy Harrison's visit to Aravind. It was a follow-up of the previous workshop held on January 7-8. HR representatives from all the Aravind Eye Hospitals and Central Office participated in the workshop. During the workshop, the following four strategies were discussed in detail and action plans were prepared:

1. Human resource planning
2. Relating employee's role to organisation's mission
3. Training for managers
4. Developing employee feedback system.

## MLOP SUPERVISORS AND MLOP TUTORS

This year the HR department played a major role in creating a new cadre from among the Mid Level Ophthalmic Personnel (MLOP), the MLOP Supervisors & MLOP Tutors.

The main reasons for creating this cadre are

- To create a formal supervisory cadre among MLOPs
- To create a separate structure with staffing for strengthening our internal MLOP training programme.
- To standardise the MLOP Training programme in all the five Aravind Eye Hospitals.
- Aravind future directions require larger number of this cadre.

Over the last week of July a total of 30 candidates across the





At the MLOP training session

five hospitals were selected through a stringent multi-selection process and promoted to this cadre-twenty for the post of Supervisors and ten as Tutors. They underwent a ten day intensive orientation programme starting from August 1-11 at LAICO, Madurai. This helped them share new ideas and to learn innovative ways among themselves. At the end of this orientation training programme, the supervisors and tutors had come up with:

- Job descriptions of Supervisor and Tutor
- Service Excellence Standards - MLOPs
- Initiated Journal Club for MLOPs
- Individual Action plan for next three months

To review their performance and to update their knowledge and skill, the second CME was conducted for them from October 27-29.

At the end of this CME, they framed Action Plan for the next three months. Apart from this, the new cadre had training on spoken English from September-November. The creation of this cadre will considerably strengthen Aravind's MLOP Programme.

#### CATARACT RETREAT

For quite sometime, there has been a felt need to develop a broad vision and standardise clinical care, surgical interventions, training and education among the various specialities across all five hospitals. As a first step, the HR Department facilitated the 'Cataract Retreat' for the cataract personnel across all five hospitals. It was held on July 30 & 31 and the follow up meet on August 21 at Aravind-Madurai. The meeting further facilitated discussions regarding possible clinical and epidemiological research. Similar exercise is planned for all departments.

#### WORKSHOP FOR CLINIC CO-ORDINATORS

A workshop was conducted for the Clinic Co-ordinators on August 26-27 to help them better understand their role in the development of their department.

#### MISSION DAY CELEBRATIONS

From 2005, October 1, Chairman Dr. G. Venkataswamy's birthday will be celebrated as "Mission Day" to reaffirm Aravind's mission among the employees and stress the importance of their role and doing it in

the "Aravind way" in attaining it.

A week prior to the Mission Day, detailed session on Aravind's Mission was taken to all the employees of Aravind Eye Care System. An Aravind Anthem developed by the employees was premiered on the Mission day.

'Cataract Retreat'



## ARAVIND - COMMUNICATIONS



*The Publications Division*



*Mr. Shanmugavelayutham video-documenting a meeting in LAICO*

*Photographing a close-up view of a patient's eye*



Aravind Communications plays an important role in fulfilling the publication, communication, health education and publicity material needs of Aravind Eye Care System in its mission to eliminate needless blindness. Equipped with the state-of-the-art desktop publishing facilities, digital photography, videography, video-editing and projection facilities, the Communications Division caters to all multimedia requirements of Aravind Eye Care System.

The Publications Division takes care of all print and electronic media needs, from stationary to annual reports and text books in ophthalmology. It plays an important role in patient education, through patient information brochures and posters on various eye disorders. It brings out

- 'Kannoli', a Tamil monthly journal to educate people on eye care
- 'Aravind News', a monthly in-house newsletter,
- 'Illumination', a quarterly ophthalmic journal,
- 'Compassion', a quarterly journal for Mid Level Ophthalmic Personnel.
- the annual activity report of Aravind Eye Care System

Apart from these, several course materials and manuals are prepared for the various training programmes the Aravind offers. All pre-press work - illustrations, layout, editing etc. is done by the Communications staff.

Apart from print, the department also designs and maintains [www.aravind.org](http://www.aravind.org) site and the web-based publications - VISION 2020 e-resource website [www.v2020eresource.org](http://www.v2020eresource.org) and 'Sitenews' as well as the 'Thagaval Vattam' the intranet of Aravind Eye Care System. It brings out 'Thingal Udhayam', a weekly bilingual intranet magazine for Aravind staff, showcasing staff talent.

The department meets all presentation needs for conferences, grand rounds etc.

Equipped with Panasonic DVX 102 A, and Avid express Pro, the Videography Division develops instructional videos and awareness films. Interactive videos of unique surgical procedures serve as great teaching aids. Instructional videos on nursing and house-keeping procedures serve as effective training material. The Division has developed several video programmes to create awareness among the public about eye donation and diabetic retinopathy. In 2005, the department of Instruments Maintenance and the Videography Division brought out an interactive video on ophthalmic Instrument Maintenance.

The Photography Division documents all important occasions - inaugurations, eye camps, seminars, conferences and VIP visits and meets all other photography needs of Aravind Eye Care System. Major part of their work involves taking clinical photographs for the various departments, mainly to be used for education and training.

# ARAVIND MEDICAL RESEARCH FOUNDATION

Though Aravind Eye Hospitals are known for their service delivery, evidence and research have always been the platform on which service delivery models were built.

The research activities at Aravind began within a year of its establishment, leading to one of the first publications documenting the barriers to accessing eye care. Since then several research studies have taken place to provide evidence to directly influence service delivery models. Subsequently, research activities increased, leading to the formation of a separate organisation known as Aravind Medical Research Foundation.

Access to the world's largest volume of eye patients, state-of-the-art diagnostic and treatment facilities, sophisticated data management systems and extensive community outreach work make Aravind ideal for clinical research, population based studies, social and health systems research. Apart from research in basic sciences like genetics, immunology, microbiology, molecular and stem cell biology, several randomised clinical trials and drug trials are in progress across the five Aravind Eye Hospitals to evaluate various intervention options and clinical outcome.

## ONGOING PROJECTS

- Molecular genetics of Primary Open Angle Glaucoma in Indian Population and structure-function analysis of myocilin protein.
- Novel molecular diagnostics for eye diseases: Screening of glaucoma gene (MYOC, OPTN, CYP1B1 and OPTC) mutations in South Indian population.
- Studies on the genetics of inherited aniridia in Indian population.
- Involvement of transcription factor gene PAX6 in various congenital ocular anomalies in Indian population.
- Identification of candidate genes and screening for mutations of genes associated with Type II Diabetic Retinopathy.
- Studies on the proangiogenic and vascular growth factors in relation to the pathogenesis of Eales' disease and Diabetic Retinopathy.
- The molecular genetics of congenital cataract in the Indian population.
- Screening for mutations in CRYBA1 and CRYGC genes in cataract patients in Southern India.
- Immunology of Fungal Keratitis.
- Pathogenic mechanism of uveitis associated with past leptospirosis.
- Characterisation and in-vitro expansion of human corneal epithelial stem cells.
- Population based surveillance of Congenital Rubella Syndrome (CRS) in South Indian Children.
- Sero survey on the immune status of health care personnel against Rubella in an eye hospital.
- Population based epidemiological study on Diabetic Retinopathy.
- Epidemiology of age related eye diseases in India-INDEYE Study.



*Prof. VR. Muthukaruppan and Dr. P. Namperumalsamy with Dr. Paul Sieving during the Indo-US Meet*



*MOU between Aravind Eye Care System and Singapore National Eye Centre through video conference*

## MAJOR EVENTS 2005

### Memorandum of Understanding - Between Singapore National Eye Centre and Aravind Eye Care System

The research team from Singapore National Eye Centre visited Aravind Medical Research Foundation and MOU for collaborative studies was signed in September.

### Indo-US Vision Research Scientists Joint Group Visit

February 14

The Aravind Eye Hospital hosted a joint Working group of Indo-US Vision Research Scientists under the aegis of the Association for Research in Vision and Ophthalmology (ARVO) and the National Eye Institute, USA. 50 Vision Research Scientists from 18 reputed US Universities including Harvard and Duke, visited four Premier Eye Care institutes in India.

This joint exercise was hosted by Dr. Namperumalsamy, Director of the Aravind Eye Care System and was jointly chaired by Dr. Paul Kaufman who is the Executive Vice President of ARVO, Dr. Paul Sieving and Leon Ellewin of the NEI and Dr. Balasubramaniam, Director of Ophthalmic Research at LVPEI. The emphasis in this collaborative effort was translating breakthrough in the laboratory to influence potential cure for blinding eye diseases prevalent in the country (Bench to Bedside applications).

This endeavour for the first time brought under a single umbrella Vision Research Scientists from reputed eye institutes in India and the US to discuss and explore possibilities of collaborative research in vision sciences and ophthalmology amongst scientists.

*Indo-US Vision Research Scientists Joint Group visit*



*The Aravind team with other participants at the WHO Meeting*

### WHO Steering Committee Subgroup Meeting

London, October 12-13

The Subgroup Meeting of the WHO Steering Committee on Epidemiology and Field Research was convened at the Health Protection Agency (HPA), London to review findings of the WHO-spon-

sored Aravind Eye Hospital study of Congenital Rubella Syndrome (CRS). This is the largest prospective study of CRS conducted anywhere in the world during the past 30 years, and a huge amount of data has been obtained during the 5 years of the study.

This meeting was hosted at the Virus Reference Department of HPA, London, which also served as the reference laboratory for the Aravind Eye



Hospital CRS study since 2001. From Aravind Eye Care System, Dr. P. Vijayalakshmi, Principal Investigator of the Aravind CRS study; Mr. Karthick Prakash, the biostatistician for the study; and Ms. Amala, Ph.D student, who has conducted the serological testing at the Aravind Rubella Research Laboratory attended the meeting. Mr. Featherstone, Project Leader for the WHO Global Measles and Rubella Laboratory Network attended the meeting recognising the global importance of the Aravind CRS study.

## VISITS ABROAD

### Indo-US Collaborative Research Workshop

Fort Lauderdale, Florida, USA, April 29-30

Organised by ARVO and assisted by National Eye Institute, Bethesda.

This workshop was a follow-up of the meeting held at Aravind-Madurai on February 14. Dr. P. Namperumalsamy, Dr. VR. Muthukkaruppan and Dr. S.R. Krishnadas participated. Discussions were held to explore the possibilities of collaboration with the Universities in US on research in basic sciences. At the meeting Dr. S.R. Krishnadas briefly outlined the five collaborative projects to be pursued under this programme. Dr.VR. Muthukkaruppan presented a poster on "Uveitis in patients with post leptospiral infection- Is it endotoxin mediated?"

After the ARVO 2005, Dr. VR. Muthukkaruppan visited several institutes and met several eminent senior researchers and ophthalmologists in US.

- At Cullen Eye Institute, Baylor College of Medicine, Houston, he discussed human corneal epithelial stem cells with Dr. Pflugfelder and Dr. De-Quan Li. He also presented a paper on Aravind's recent studies on a new method of identification of corneal epithelial stem cells using confocal microscopy.
- At the Department of Ophthalmology, University of Wisconsin, Madison, he discussed two proposed collaborative projects with Dr. Paul Kaufman, Dr. Nadar, Sheibani and other senior staff. He also met Dr. Suresh Chandra, Dr. Chris Murphy of Veterinary School and Dr. Robert Auerback, his major professor for Ph.D.
- At National Eye Institute, Bethesda he discussed Uveitis with Dr. Chi-Chao Chan, and Dr. Nussenblatt. Here he presented a paper on 'Analysis of aqueous humor for infiltrating cells and cytokines in leptospiral uveitis patients'.
- At the Joslin Diabetic Centre and Beetham Eye Institute he met Dr. Paul Aiello, Dr. Jerry Cavallerano and presented a paper on various research projects being carried out at Aravind Medical Research Foundation. He also discussed the collaborative projects on Diabetic Retinopathy with Dr. Aiello.



*Dr. R. Kim at the Allergan Investigators Meet*

### Investigators Meeting

Athens, Greece, October 26-29

Dr. R. Kim attended the Allergan Investigators meeting.

### Visitors

- Mr. Li JIN, Immunisation and Diagnosis Unit, Virus Reference Division, Centre for Infections, Health Protection Agency, London (February 20-March 13) regarding CRS study.
- Dr. Susan Robertson March 12-25 for data cleaning in the CRS study. She once again visited from September 8-16 to discuss about publications from the CRS study.
- Mr. Tejas Desai, IIM – Ahmedabad was at Madurai from November 2-6 to develop a model for assessing clinical resource requirement.

# ARAVIND EYE BANKS

## ROTARY ARAVIND INTERNATIONAL EYE BANK, MADURAI

In the year 2005, Rotary Aravind International Eye Bank, besides its eye ball collection and processing work, was involved in various activities. It took new initiatives to improve the eye ball collection. Various initiatives were taken to increase the awareness about eye donation among the general public. Awareness programmes were arranged in colleges, self-help groups, Lions Clubs, Rotary Clubs and in Non Profit Organisations. With the co-operation from the Diabetic Retinopathy staff, Eye Bank has given 15 awareness lectures to the outpatients and their attenders who came to the hospital.

The Eye Bank recovered a total of 1,610 corneal tissues from 817 donors in 2005. This represents a 6% increase in the collection of eye balls over the last year. After grading the corneal tissues for grafting, 530 tissues were used.

### DISTRIBUTION SERVICES

The distribution of corneas has increased to 115 in 2005. In total 22% of the graftable corneas were distributed to other eye hospitals.

### COLLECTION CENTRES

Eye Donation Collection Centres include 19 Lions Clubs, 2 Rotary Clubs, 3 Voluntary Organisations, and the two Aravind Eye Hospitals at Theni and Pondicherry. Eyes were also received from Seattle Eye Bank. Lions Club of Kumbakonam has collected the maximum number (339) of eye balls, contributing to 21% of the total. Eye ball collection in Madurai has increased from 269 to 322. This year, through HCRP (Hospital Cornea Retrieval Programme) 30 eye balls were collected.

### OTHER ACTIVITIES

1. Dr. M. Srinivasan, Director-Eye Bank attended the Rotary Club of Madurai Mid Town meeting on September 1. He spoke on the involvement of Rotary Club in Eye donation activities.
2. Mrs. Nirmala, Eye Bank Coordinator attended the Eye Donation and Eye Banking Workshop at Chennai conducted by Sankara Nethralaya and NPCB on September 6.

## ARAVIND-IOB EYE BANK, COIMBATORE

On January 28, Mr. M. Shanmugam, Deputy General Manager, Indian Overseas Bank, Coimbatore, inaugurated Aravind-IOB Eye Bank. Dr. P. Namperumalsamy, Mr. G. Srinivasan, Dr. PDG Pratap Gokul Das, Rotary International District 3200 and Lion MJF. Sarathamani Palaniswamy were a few of the others who participated in the inaugural function. Several awareness creation programmes were also



*Dr. M. Srinivasan explaining the significance of eye donation to the Patient Counsellors*

*At the inauguration of Aravind-IOB Eye Bank at Aravind-Coimbatore*



organised on various significant dates to initiate and motivate people for eye donation. In the year 2005, the Eye Bank received a total of 438 eyes, out of which 271 eyes were used for transplantation.

### ROTARY ARAVIND EYE BANK, TIRUNELVELI



*Mr. Kennet Morgan, Director, Rotary International, USA during his visit to Rotary Aravind Eye Bank at Aravind-Tirunelveli*

Stepping into the second year, the Eye bank has showed a progress in the corneal retrieval in the year 2005. The Eye Bank recovered a total of 44 corneas from 22 donors in the year 2005. 13 corneas were utilised for surgery, remaining for training purpose. Several awareness programmes were organised to stress the need for motivating the community to donate eyes.

### ARAVIND EYE BANK, PONDICHERRY

In 2005, the eye bank received 67 corneal tissues from the local people and 47 corneal tissues from other Eye Banks.

## EVENTS 2005

### 20TH NATIONAL EYE DONATION FORTNIGHT

The 20th National Eye Donation fortnight was observed throughout India from August 25 - September 8. Aravind Eye Hospitals conducted various programmes to create awareness among the public about the importance and the present status of eye donation in India. Posters and banners depicting the need and importance of eye donation were displayed in various public places. During the fortnight, articles on the same were published in various local newspapers.

### EYE DONATION AWARENESS WORKSHOP

Aravind-Tirunelveli, September 6

Eye donation awareness workshop was conducted in association with Rotary Club, Tirunelveli West. It was inaugurated by Sri. K. Gopalakrishnan I.P.S., Inspector General of Police, Tirunelveli. Aravind Eye Bank staff spoke on various aspects of Eye Donation.

## AUROLAB

Beginning with the IOL division in 1992, Aurolab has consistently strived to explore growth opportunities and develop newer range of products to address the growing needs of the medical fraternity for affordable products.

In 2005, Aurolab introduced a host of new products like disposable injectors for foldable lenses, absorbable sutures, 70 micron needles for microsurgeries and Trypan blue 0.15% for retinal surgery. Two new production divisions for manufacture of ophthalmic microsurgical blades and ophthalmic instruments were added. Aurolab also initiated a project on Green Lasers used in Diabetic Retinopathy treatment.

Aurolab formally handed over the entire spectacles surfacing and edging operations to its technical partner, Essilor India Private Limited, headquartered at Bangalore.

## INTRAOCULAR LENS DIVISION

The need for low cost high quality ophthalmic consumables led to the establishment of the Intraocular Lens Division in 1992. The IOL division has come a long way since and has introduced a variety of products to cater to the differing and specific needs of the ophthalmologists.

Aurolab introduced 'Fluoriol', the fluorine surface modified intraocular lenses early this year. These lenses, as they undergo a permanent modification on its surface, have stronger bonding with a smooth surface and lower surface energy. This results in reduced cell adhesion, reduced inflammatory cell response and longlasting optical performance. Most significantly, Fluoriol addresses the needs of glaucoma, uveitis, diabetes, PXF and paediatric patients.

Through market research, Aurolab identified the need for a single use disposable injector for implanting foldable lenses. Aurolab introduced 'Glide', a single use (disposable) injector with an improved injection mechanism. This disposable injector eliminates the need for cleaning and maintaining of injectors, a process followed earlier. This lightweight injector has optimum spring tension in it and ensures controlled and smooth implantation of foldable lens. Aurolab also supplies a disposable cartridge with a locking mechanism to ensure proper loading and anti-trap movement of the foldable lens in the cartridge.

The intraocular lens division has again recorded a good performance this year, both in PMMA lenses and acrylic foldable lenses. There is a 14% growth over last year's performance in number of units sold.







## SUTURE NEEDLE DIVISION

Apart from IOLs, there were other consumables that added to the cost of IOL surgery in 1990s. This prompted the need for in-house manufacture of suture needles. The Suture Needle Division was started in 1997, with transfer of technology from Germany.

This division introduced 'Aurocyl', the Poly Glycolic Acid (PGA) synthetic violet braided absorbable sutures in the range of 8-0, 6-0 and 4-0 for ophthalmic segment. The absorbable sutures are strong, secure and soft and have 75% of tensile strength at 14 days and 50% tensile strength at 21 days. This division presently offers a complete range of ophthalmic sutures and suture needles covering cataract and other ophthalmic surgeries. This includes absorbable sutures and bigger size non-absorbable sutures used in ophthalmic surgeries. These new products are well accepted in the market.

The division is now planning to meet the needs of cardiovascular and other microsurgery segments. It has developed over 20 surgical suture needles used in hand, vascular, nerve and capillary surgeries. These production capabilities are attributed to the long-term experience gained in manufacturing micro suture needles for ophthalmology.

Aurolab produced and launched, for the first time in India, a 70 micron needle with 11-0 and 10-0 Nylon suture for microsurgical applications. Aurolab launched these products in the micro vascular hand surgery conference in Cochin in August 2005. The users are very happy with the performance of these new suture needles.

Aurolab is able to offer its new products at prices lower, significantly lower than the market rates, keeping in line with Aurolab's mission of making healthcare affordable. Currently this division is developing a low cost 22 gauge cannula for delivering viscoelastics during surgery.

*Aurolab staff*



## PHARMACEUTICAL DIVISION

The modern state-of-the-art pharmaceutical division was established in 1997 with a mission to manufacture high quality ophthalmic formulations at an affordable cost. It now manufactures more than 50 ophthalmic drugs.

In 2005, the pharmaceutical division developed 'Retibluce, Tryphan Blue 0.15% for ILM and ERM staining and peeling. It is quick staining, safe and easy to use. Many more advanced ophthalmic drug formulations are under development. The quality control laboratory of this division is well equipped with modern analytical instruments and equipment to test these drugs.

The pharmaceutical division is internationally recognised for the quality system followed and maintained at every stage of its production line. The entire manufacturing facility complies with schedule 'M' as per the Indian Drug Regulation. The pharmaceutical division is WHO – GMP certified for all ophthalmic drugs and major products are CE certified.

In 2005, the division established a strong presence in the retinal pharmaceutical and surgical adjuncts market segments. This is a reflection of its commitment to consistent quality leading to high levels of customer satisfaction.



## MICROSURGICAL OPHTHALMIC BLADES DIVISION

Aurolab, with its expertise and experience in ophthalmic consumables, now presents 'AuroSharp', the microsurgical blades, manufactured from high quality stainless steel material, with proven technology for consistent, precise, glare-free incisions. It provides an excellent and reliable cutting experience in every way, every time. Following successful clinical trials, Aurolab handed over its first set of ophthalmic blades to Dr. M. Srinivasan, Director of Aravind Eye Hospital, Madurai, on June 2005.

The current product range includes:

1. Lance tip/ Side Port - 15 degree straight
2. Crescent - 2.5 mm Angled
3. Keratome - 3.0/3.2 mm Angled
4. Implant - 5.2 mm Angled



AuroCautery

## INSTRUMENTS DIVISION

Aurolab started an instruments division in 2005. This division has introduced 'AuroCautery', a radio frequency based Bipolar Coagulator Unit being used for ophthalmic surgeries. Aurolab has made the benefits of radio frequency coagulation available at affordable prices. AuroCautery is well received in the market and supplied to both National and International users.

## HEARING AID DIVISION

The hearing aid division of Aurolab was established in the year 2002 with the main objective of producing high quality and affordable hearing aids as a contract manufacturer for Project Impact USA.

The trainers from Project Impact USA, visited Aurolab for follow up training and to discuss the new product developments in BTE (Behind The Ear) and ITE (Inside The Ear) hearing aids.

With this fully equipped unit and trained staff, the division produced around 11,000 high quality affordable hearing aids. These hearing aids have received CE mark and FDA approval.

Production at this division is subject to further contract manufacturing orders as Aurolab is not involved in promotion and marketing of these items.

## EVENTS 2005

### AUROLAB'S GREEN LASER PROJECT

Aravind Eye Hospital established TIFAC-CORE (Centre Of Relevance and Excellence) in Diabetic Retinopathy, with support from the Department of Science & Technology (Government of India). Aurolab is one of the industrial partners of this centre. Based on the future need for making Diabetic Retinopathy treatment affordable and accessible, Aurolab initiated a project for the development of affordable "Green Laser Photocoagulator" widely used in the treatment of retinal diseases related to Diabetic Retinopathy. Aurolab entered into a Memorandum of Understanding (MOU) with the Raja Ramanna Centre for Advanced Technology (RRCAT) Indore, a premier scientific research institution of the country. Dr. T.P.S. Nathan, Head, Solid State Laser Division visited Aurolab in November 2004 to sign the MOU.

By drawing from the pool of highly experienced laser technologists from RRCAT, Indore, this cooperative development project is an attempt to produce Green Lasers indigenously at a competitive and affordable price. This will enhance accessibility and availability of these lasers that are much needed in the treatment of Diabetic Retinopathy and other ophthalmic surgical procedures such as glaucoma and macular degeneration. The necessary work to design and develop the power source, solid-state laser optics, opto-electronic controls, mechanical assembly and delivery system were planned and carried out at RRCAT with appropriate input from Aurolab.

The first prototype of a solid-state, Green Laser Console (532 nm wavelength), with the necessary operating controls was handed over by Dr. V.C. Sahni, Director and Dr. A.K. Nath, Head, Solid State Laser Division, to TIFAC-CORE in Diabetic Retinopathy at Aravind Eye Hospital for clinical evaluation and trials on September 2005. The results of the clinical trials are very encouraging.



Dr. P. Balakrishnan receiving the first Green Laser Console prototype from Dr. Sahni, Director, Centre for Advanced Technology (CAT), Indore

First Green Laser Console



### ISO AUDIT

Aurolab remains committed to the quality of its products. As a part of its strict adherence to quality systems, Aurolab monitors its processes and systems through regular inspection and regular internal and external audits.

Underwriters Laboratories (UL) certified Aurolab with the 'ISO 9001:2000' with design certification in 2005. It has also received the ISO 13485: 2003 certificate which is a special standard for Quality Management System for Medical Device Manufacturers.

### DGM AUDIT

DGM, the certifying agency from Denmark, conducted the yearly review of the operations and processes for the CE certified products. The certification for the products was upgraded in line with standard ISO 13485: 2003.

### CONSTRUCTION OF AUROLAB BUILDING

The Bhoomi Pooja for the new Aurolab building at Veerapanjan, which is about 6km from the existing facility was held on April 18, 2005 in the presence of Dr. G. Venkataswamy, Chairman Aravind Eye Care System, and other trustees of Aurolab Trust. The construction has begun and the building is expected to be completed by the end of 2006. This facility will enable Aurolab to enhance its production capacity to cover the increasing demand for its existing products and to introduce new products. This state-of-the-art manufacturing unit will conform to all international regulatory requirements.

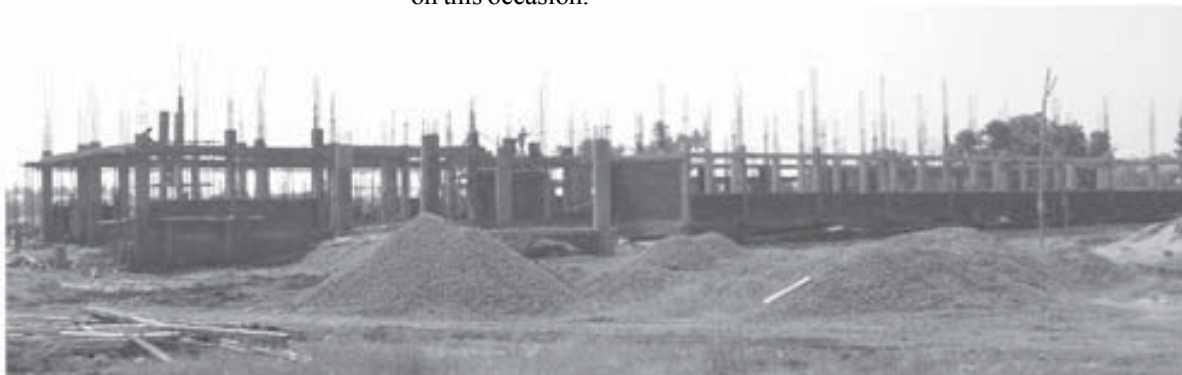
### AUROLAB LAUNCHES ONLINE -SHOPPING FACILITY

In order to make direct ordering easy, Aurolab developed an online purchasing module, especially catering to the international market.

E-Aurolab, Aurolab's online shopping network was launched in June 2005 at Madurai. This e-com enabled website [www.aurolab.com](http://www.aurolab.com) was launched by Dr. G. Venkataswamy, Chairman, Aurolab Trust. All the trustees of Aurolab, Dr. P. Balakrishnan, Managing Director, Mr. S.P. Clement, Director Planning and Development, Mr. R.D. Sriram, Director-Operations and division heads were present on this occasion.



*Aurolab new building construction in progress....*





*Aurolab E-shop team*

E-Aurolab opens up its productline to all present and future customers - domestic and international. It is very versatile. Customers can request quotation for specific items, or complete a purchase order online. Payment can be made either through traditional methods or online. Several methods of shipping are user selectable at the time the order is placed, and an “Order Tracking System” allows the customer to check the status of their order at any time (from when the order is placed until it is delivered). This system is a part of Aurolab continuous improvement efforts to improve customer satisfaction.

This initiative was made possible by the technical support from Mr. Michael Myers, a long time friend and volunteer of Aravind Eye Care System from Florida, USA.

## HR INITIATIVES

### CLINICAL RESEARCH DEPARTMENT

Aurolab has recently started Clinical Research Department to initiate and undertake clinical studies for the new and existing products that are developed by Aurolab. These studies are a prerequisite to launch the new products that are developed by Aurolab in the market and to apply for major certifications like FDA, CE etc. Also, these studies are greatly helpful in publishing articles about the performance of Aurolab’s products. Presently, a team of 6 members are working in this department and the team has initiated 9 studies about various products within a year.

### MARKETING TEAM

The domestic marketing team has been strengthened with more members, each handling specific divisions/regions. The Area Development Managers placed in different regions of the country work in close tandem with the dealers in meeting the doctors, clarifying their queries, forwarding issues, promoting new products, etc. These on-the-field members from Aurolab represent the organisation in various conferences and promote Aurolab’s products to the delegates attending the conference. Product Managers to handle specific divisions and Key Accounts Executive to handle specific clients have also joined the team.

### DEALERS’ EXECUTIVES TRAINING PROGRAMME

With the marketing team setting out to explore the potential in the market, there is a regular need for sharing technical details, updates on products, information on prevailing trends, etc. Aurolab conducted training programmes for the dealers’ executives this year. The first programme was held in March. A team of dealers’ executives from various states attended the training programme. The executives were taken on a plant tour at Aurolab to understand in detail the various



*Aurolab Marketing team*



processes involved in the manufacture of lenses, suture needles and pharmaceutical products. They attended OT sessions at Aravind Eye Hospital and classroom sessions, demonstrations, etc. at Aurolab. The production and marketing departments mainly handled the sessions.

Three such training programmes covering around 25 dealer executives have been held so far. The training provided them a great opportunity to interact and clarify many of their on-the-job questions. Such training programmes help increase the confidence and performance levels of the executives and interact more meaningfully with their customers.

## VISITS

Dr. P. Balakrishnan participated in the Affordable Hearing Aid Project (AHAP) Stakeholders' Meeting held on July 26, at Lions Club International Foundation, Illinois, USA. The main agenda of the meeting was to discuss the current status of AHAP in terms of manufacturing, technical support, supply chain, R&D, software, liability insurance, financial aspects etc., and about the future in terms of marketing, distribution and service delivery models, especially in developing countries. Participants in the meeting included Ms. Clarie Hicks and Mr. Mike Hicks from Impact UK, Mr. David Green and Mr. Sunil Chojar from Project Impact, USA, Mr. Philip Albano and Ms. Deb Stamm from LCIF, USA.



*Dr.P.Balakrishnan, Managing Director, Aurolab with the other participants at the Affordable Hearing Aid Project Stakeholders' meeting in USA*

## PARTNERS IN SERVICE



*Lions International President  
Ln. Ashok Mehta at LAICO*



*Lavelle Fund for the Blind Team at Aravind*



*State Bank of India team donating  
Retcam to Aravind*



*Dr. Susan Robertson from WHO, Geneva  
with Dr. P. Vijiyalakshmi, and Ms. Remya*

*Senior TIFAC-CORE team in Aravind's  
Research Laboratory*



### FOR SERVICE DELIVERY, HUMAN RESOURCE 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  
 Department of Science & Technology, Govt. of India  
 Essilor, India  
 Friends of Aravind Association, USA  
 Indian Institute of Management, Bangalore, India  
 Indian Space Research Organisation, Bangalore, India  
 International Federation of Eye Banks, USA  
 Indian Overseas Bank, India  
 International Agency for Prevention of Blindness, India  
 International Eye Foundation, USA  
 Lavelle Fund For the Blind, USA  
 Lighthouse International, USA  
 Lions International, USA  
 Mahema and Manohar Devadoss  
 ORBIS International, USA  
 Rotary International, USA  
 Seva Canada, Canada  
 Seva Foundation, USA  
 Sight Savers International, UK  
 State Bank of India  
 TIFAC-CORE, Department of Science & Technology, Govt. of India  
 Topcon, Japan  
 University of Michigan, USA  
 VISION 2020 – The Right to Sight, India  
 W2 Consulting, UK  
 World Diabetes Foundation, Denmark  
 Zurich Financial Services, UK

### 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  
 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

## OTHER VISITORS & VOLUNTEERS



*Dr. Stephen Kraft in the Paediatric eye clinic at Aravind-Madurai*



*Delegates from Ministry of Health, China and ORBIS-China*



*From ORBIS International*



*Ms. Pamela C. Sieving with Library and Information Centre staff at Aravind-Madurai*

*Dr. Clare Gilbert with Dr. P.Vijayalakshmi at Aravind-Madurai*



An impressive number of volunteers visit Aravind every year. Right from its inception, volunteers have played a vital role in Aravind's sustainable development and growth. Aravind gratefully acknowledges the unstinting support of friends and organisations throughout the world in its crusade against blindness.

With the growing popularity as a successful business model, as illustrated by leading business institutes and journals around the world, the number of visitors - business school faculty and students, existing and prospective eye care providers - who come to see the system in working is increasing quite rapidly.

### Volunteer Faculty for ORBIS -Aravind Paediatric Fellowship programme from ORBIS International

- Dr. Stephen Kraft, Professor, Department of Ophthalmology and Vision Sciences, Faculty of Medicine, University of Toronto, Canada.
- Dr. Rosalind Stevens Cavender, Retina/Vitreous Surgeon, Chief of Ophthalmology, Dartmouth Medical School, Dartmouth-Hitchcock Medical Centre, Lebanon, New Hampshire, USA

### Other visitors from ORBIS International

- A team of 7 delegates constituting of Members from the Ministry of Health, People's Republic of China and from ORBIS China came to Aravind-Madurai to discuss high volume, low cost and high quality cataract surgeries for sustainability.
- Mr. Mohan Jacob Thazhahtu, Chief Operating Officer, ORBIS International, New York, USA, Ms. Deepa Gupta and Mr. G.V. Rao, ORBIS International, India were here to understand the impact of the collaboration with ORBIS International at Aravind and also to have an orientation to Vision 2020 India forum initiatives.
- Dr. Richard Wormald, Head - Cochrane Reviews Group for Eye Care; Ms. Clare Riches, Programme coordinator - ORBIS U.K; Dr. Chirstine Storb, Incharge of Quality Assurance - ORBIS N.Y accompanied by Dr. G.V. Rao, Country Director - ORBIS New Delhi visited Aravind Eye Care System. They were here to understand the childhood blindness work that Aravind is handling, contribution of ORBIS programmes, and research ideas to strengthen evidence based programming. Dr. Richard Wormald also gave a lecture on evidence based Eye Care to a wider audience present at Aravind.
- Dr. Bhagwat, Deputy Director - Programmes, Ms. Clare Riches, and Ms. Neha Tyagi, Programme Managers, ORBIS, USA to review the progress of the Aravind ORBIS POLTC programme.

### From SEVA Foundation

- Mr. Ned Willard and his wife Poppy.
- Ms. Marina Rifkin, Newly joined Board Member Seva Foundation USA.
- Seva Members Dr.Suzanne Gilbert, Mr.R.P.Kandel, Ms. Maura Santageto, Mr.Nagarajan, Ms.Chundak Tenzing, Ms.Jessica Grignon and Mr.Kenua Bassett were here at Aravind-Madurai to review Aravind-Seva Project.

### Other Visitors

- Ms. Pamela C. Sieving, Biomedical Librarian/Informationist, National Institutes of Health Library visited Aravind on February 14 and shared about NIH Websites, Mesh Database,. Special Features of Pubmed and HINARI.
- Dr. Clare Gilbert, Senior Lecturer, International Centre for Eye Health, Clinical Research Unit, London School of Hygiene and Tropical Medicine, UK came





*Ms. Jane Armstrong at TIFAC-CORE reading and grading centre*



*Prof. Jean Claude Mbanya at LAICO*



*PID. Edward Gear, and his wife from Lions Clubs International, USA at LAICO*



*Dr. Bill Stewart with the Paediatric team*

to explore possibilities of collaborative studies in paediatric eye care. She helped in the study design and implementation of various on-going research work at the Paediatric Ophthalmology Department at Aravind-Madurai.

- Dr. Robert Peterson, and Mrs. Veronica Peterson, Boston, USA were at Aravind-Coimbatore and Madurai as volunteers. Dr. Peterson gave lectures to the postgraduate students on various childhood eye diseases.
- Dr. Sanjiv Desai, Tarabai Desai Eye Hospital, Jodhpur visited Aravind from January 29- 31 to have an overview about Aravind Eye Care System and outreach activities.
- Laurent and Marie with their children were at Aravind-Pondicherry to interview Dr. G. Venkataswamy for a documentary film they were producing on social entrepreneurs and visionary changemakers.
- Dr. Jack Whitcher, Dr. Gil Smolin and Ms. Elizabeth Yi, Proctor Foundation, San Francisco came to follow up on the progress of the pilot study for the new collaborative trial, 'Steroids for Corneal Ulcer Trial' between Aravind, Proctor Foundation, and Dartmouth-Hitchcock Medical Center.
- Ms. Jane Armstrong, Chief Grader at the Reading and Grading centre, Madison- Wisconsin, University of Wisconsin, USA was at TIFAC-CORE Centre from January 22- 29 to help Aravind develop the curriculum for grading the diagnosis of various retinal diseases like diabetic retinopathy, Age related macular degeneration, and also for cataract grading.
- Prof. Jean Claude Mbanya, Vice President, International Diabetes Federation, WHO Consultant for Diabetes, Cameroon, South Africa, visited Aravind on February 17 to know about Aravind model, Capacity building programmes and Diabetic Retinopathy project at Aravind Eye Care System.
- PID. Edward Gear, Lions Clubs International, USA
- On 14 February, Dr. Gislin Dagnelie, Associate Professor of Ophthalmology, Lions Vision Research and Rehabilitation centre, John Hopkins, Wilmer Eye Institute, came to see the Low Vision Clinic and its activities at Aravind-Madurai.
- Mr. R. Natarajan, Consultant, Vellore Institute of Technology came to Aravind-Pondicherry to meet Dr. Venkataswamy and talked to him about "Centre for Socio Economic Research and Energy Projects".
- On 18th February, Mr. Kodi, Principal, IFET Engineering College, Villuppuram came to Aravind-Pondicherry to meet Dr. Venkataswamy
- On 21st February, Ms. Dhenuga & Ms. Uma were at Aravind-Pondicherry to meet the INDEYE project team.
- On 22nd February, a group of delegates from Sri Aurobindo Society and Sri Sarada Ashram, Ulundurpet were at Aravind - Pondicherry. Dr. G. Natchiar explained Aravind work culture and its values. The focus of this meeting was to find out the ways by which Aravind & Sri Ramakrishna Matt can collaborate in the community programme.
- Mrs. Karim, Advisor for Low Vision Asian region, CBM visited Low Vision Clinic along with Low Vision clinic staff of Trichy Joseph eye hospital and spent one day observing the departmental functions. She commented that excellent comprehensive low vision services are given by Aravind.
- Mr. Rahul Brown, USA helped in the documentation of 2004 Annual report.
- Ms. Denise Carline, was here at Aravind-Madurai to develop the process for project management.
- Mr. Chris De Bode, Switzerland was here at Aravind-Madurai on April 26 to take photographs for WHO project-Faces of chronic diseases.
- Ms. Denise Ciesielka, Health Portfolio Manager and Ms. Abby Doft, Acumen Fund came to discuss about the Telemedicine initiatives at Aravind.
- A team from Hindustan Lever Limited came to Aravind-Pondicherry to see Aravind's work.
- Mr Jim Murphy, Regional Marketing Manager, Alcon International came to Aravind-Madurai see the functioning of various speciality clinics and also to study the phaco training programme offered here in collaboration with Alcon.



*MPH students from Johns Hopkins Bloomberg School of Public Health, USA*



*Delegates from ALCON, China*



*Ms. Kathryn Hecht and Mr. John Stewart with Dr. G. Venkataswamy*



*Wenzhou Medical College team with Aravind Senior team*



*Senior members of Royal Philips Electronics team at LAICO*

*Mr. Simon Chater with Mr. R.D. Thulasiraj and other LAICO faculty*



- Mr. Fred Munson and Mr. Raheem Rahmathullah, IEF, USA came to evaluate the International Eye Foundation Grants.
- Mr J.P.Singh, Managing Director, Mr.Jaideep Bajaj, General Manager - Cataract, Mr.Rajath Goyal, General Manager – Refractive Business, Mr.Neelakanta Kannan, Regional Business Manager, Mr.Venkatasubramanian, Senior Manager Refractive Services, BAUSCH & LOMB (B&L) were at Aravind-Madurai on July 19 to establish Cataract Surgical Network between Aravind and B&L.
- Mr. Justin Huggler, The Independent, Asia Correspondent, UK
- Mr. Anand Ramsewak from Mauritius
- Dr. Stephen Cains, The Fred Hollows Foundation, Australia.
- Ms. Jacqueline Novogratz, Co-founder & CEO, Mr. Tim Brown, CEO & President, Mr. Chris Anderson, Partner, Ms. Susan Meiselas, Photographer, Acumen Fund were here at Aravind-Madurai on October 6 to get an overview of Aravind Eye Care System.
- Ms. Kathryn Hecht from the US came to help the education department in the documentation of the MLOP manual.
- Lavelle Fund Team from Lavelle Fund for the Blind, Inc New York, were at Aravind-Madurai from November 14-17 to have an overview of Aravind Eye Care System
- Ms. Erin E. Lawler, Zurich, Switzerland was at Aravind-Madurai from November 20-December 3
- Eight MPH students from Johns Hopkins Bloomberg School of Public Health, USA were at Aravind-Madurai for a week to observe and learn the characteristics of the Aravind Model.
- Ms. Ali King and Mr. Kenny Rob, Zurich Financial Services, UK.
- Mr. Matthew Farmer, Co-Founder Adopt-a-Business from UK, was here at Aravind-Madurai on March 31, to have an overview about Aravind Eye Care System.
- A team of 6 board members from Mechi Eye Care Center, India were at Aravind-Madurai from April 9-11 to have an overview about the infrastructure and architectural design of Aravind Eye Care System.
- Dr. Kandhanwal; Dr. Rekha Kandhanwal; Mr. Rakesh, were here at Aravind-Madurai for two days from April 25-26 to discuss about the consultancy services for setting up a new Eye Hospital.
- A team of 11 Chinese delegates from ALCON, China were at Aravind-Madurai on May 18, to have an overview of Aravind Eye Care System and to know about India's successful experience in broadening cataract surgical volume.
- Mr. Ahmet Yalcin, Accenture, Turkey was at Aravind-Madurai from May 23-26, to have an overview of Aravind Eye Care System and for adoption of the same model in Turkey.
- Mr David Nash, Zurich Financial Services, Switzerland came to have an overview of Aravind Eye Care System.
- Dr.Paul Courtright, KCCO, Tanzania to develop curriculum for Programme Managers Course in Africa.
- Prof. Joachim Freimuth, Management Consultant, CBM was here for one to one management training programme.
- Dr. Wang Qinmei, Executive President of the Eye Hospital and his team from Wenzhou Medical College, China were in Aurolab on October 1 for a week, to have a collaborative programme of cataract surgery training and to help in the promotion of Aurolab products.
- Dr. Preeti and Dr. Sejal Desai, SEWA Rural, Gujarat were at Aravind-Madurai from October 17-18 to get an exposure on glaucoma services at Aravind.
- Mr. Gerard J.Kleisterlee, President & CEO, Mrs. Annemieke B.G. Kleisterlee, and senior members of Royal Philips Electronics came to meet Aravind senior leadership team to discuss collaborative research on November 13 .
- Mr. Simon Chater, Mortgage Strategy and Planning, Adopt-a-Business was at Aravind-Madurai from November 15-December 12.

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# ARAVIND EYE CARE SYSTEM

## CENTRAL OFFICE :

### Chairman

DR. G. VENKATASWAMY MS., FACS

### Vice Chairman

DR. P. NAMPERUMALSAMY MS., FAMS

### Director

DR. M. SRINIVASAN MS., DO

### Joint Director

DR. R.D. RAVINDRAN MS., DO

## Finance

### Director

G. SRINIVASAN B.E., MS

## Human Resources

### Director

DR. G. NATCHIAR MS., DO

### Senior Manager

PREETHI PRADHAN MSW

## IT & Systems

### Director

R.D. THULASIRAJ B.SC., MBA

### Senior Manager

B.S. GANESH BABU M.COM., MS

## Training - Mid Level Ophthalmic Personnel

### Director

DR. USHA KIM DO., DNB

### Manager

K. RAJESWARI PRINCE MSW., M.Sc

## Purchase

S. JAYACHANDRAN MHM

## Outreach

R. MEENAKSHI SUNDARAM MHM

## ARAVIND EYE HOSPITALS & POSTGRADUATE INSTITUTE OF OPHTHALMOLOGY

Run By Govel Trust

## BOARD OF TRUSTEES

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### Trust Secretary

MR. G. SRINIVASAN

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DR. P. NAMPERUMALSAMY

DR. G. NATCHIAR

MRS. MEENAKSHI

MRS. LALITHA

DR. R. KIM

DR. N.V. PRAJNA

DR. S. ARAVIND

The President, Rotary Club, Madurai,

Main Branch

(Ex-Officio)

# ARAVIND EYE HOSPITALS & POSTGRADUATE INSTITUTE OF OPHTHALMOLOGY

## ARAVIND – MADURAI

Chief Medical Officer / Addl. Professor

DR. S.R. KRISHNADAS DO., DNB

Administrator / Reader

DR. S. ARAVIND MS., MBA

### RETINA - VITREOUS CLINIC

Chief / Professor

DR. P. NAMPERUMALSAMY MS., FAMS

Addl. Professor

DR. R. KIM DO., DNB

DR. DHANANJAY SHUKLA MS

Reader

DR. K. NARESH BABU MS

Asst. Professors

DR. VASUMATHY MS., D.N.B., FRCS (EDIN)

DR. CHANDRA MOHAN MS., DNB., FRCS (G)

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

DR. T.P. VIGNESH MS

### IOL & Cataract Clinic

Chief / Professor

DR. G. NATCHIAR MS., DO

Reader

DR. S. ARAVIND MS., MBA

Asst. Professors

DR. ILANGO DO., DNB

DR. PRAVEEN KRISHNA DNB

DR. HARIPRIYA MS

DR. S. MAHESH KUMAR DO., DNB

DR. KAMAL PREETH DO., DNB

DR. ANAND DEV MS

DR. KOWSALYA DO., DNB

DR. G. SEETHAPATHY MS

DR. T. VIJHAYA PRIYA MS

DR. KAVITA VADI MS

Tutors

DR. DEEPAK AGARWAL DNB

Medical Officers

DR. PAMANO DO

DR. S. VIDYA DO

DR. RUPA DO

### Cornea Clinic

Chief / Professor

DR. M. SRINIVASAN MS., DO

Addl. Professor

DR. N.V. PRAJNA DO., DNB., FRCOPHTH.

Asst. Professor

DR. MANORANJAN DAS DNB

### Paediatric Ophthalmology & Strabismus Clinic

### Contact Lens Clinic

Chief / Professor

DR. P. VIJAYALAKSHMI MS

Reader

DR. SHASHIKANT SHETTY MS

Asst. Professor

DR. SUNDARESH MS

### Glaucoma Clinic

Chief / Addl. Professor

DR. S.R. KRISHNADAS DO., DNB

Reader

DR. MANJU PILLAI DO., DNB

DR. GEORGE VARGHESE PUTHURAN MS

DR. R. SHARMILA DNB

### Neuro-ophthalmology Clinic

Chief / Professor

DR. G. NATCHIAR MS., DO

Asst. Professor

DR. MAHESH KUMAR DO., DNB

### Uvea Clinic

Chief / Professor

DR. S.R. RATHINAM DO., DNB

Asst. Professor

DR. VENU NADELLA DNB

### Orbit & Oculoplasty Clinic

Chief / Addl. Professor

DR. USHA KIM DO., DNB

Asst. Professor

DR. HADI M KHAZAEI MS

### Vision Rehabilitation Centre

Asst. Professor

DR. ILANGO DO., DNB

### Free Hospital

DR. V.P. RAVICHANDRAN DO

### Physician

DR. BANUSHREE MD

### Microbiologist

DR. LALITHA PRAJNA MD., DNB

### Optometry, Optics & Instrumentation

Professor - Optics & Instrumentation

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

Professor - Optometry

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

### Visiting Doctors

Neuro Surgeon - Faculty Asst.

Professor of Neurosurgery

DR. P. SUBBURAM MS., MCH

Anaesthetist

DR. A. RAVICHANDAR MD., DA

### Nursing

Nursing Superintendent

B. RADHA BAI

Staff - Tutor

ALEES MARY, R.N.R.M

Staff - Theatre

ALIKUTTY VARGESE, R.N.R.M

### Administration

Senior Manager - Outreach

R. MEENAKSHI SUNDARAM MHM

Senior Manager - Maintenance

S. JAYACHANDRAN MHM

Senior Manager - Operations

R. PREMKUMAR MHM

Patient Relation Officer

V. RAJENDRAN B.COM

Transport & Public Relations

S.G. RAMANATHAN M.A

Manager - Housekeeping  
NAVAZ CLEMENT M.A  
Manager - Finance  
N. SHANMUGASUNDARAM B.COM  
Manager - Accounts  
C. ARUMUGAM C.A  
Manager - Office  
K.S. KANDASAMY B.A  
Manager - Medical Records  
RAJKUMAR M.A., B.M.R.SC  
Manager - Stores  
M. MUTHUSAMY  
Manager - Personnel  
P. GANESAN  
Audio-Visual Department  
K. SHANMUGA VELAYUTHAM B.Sc  
Library  
R. KUMURAGURUPARI M.A., M.L.I.S., B.Ed  
Free Hospital  
R. RAMESH BABU M.A

## ARAVIND – THENI

Chief Medical Officer  
DR. DIPANKAR DATTA DO., DNB  
Asst.Professor  
DR. DEEPAK AGARWAL DNB  
Manager  
M. MARUTHANAYAGAM B.COM

## ARAVIND – TIRUNELVELI

Chief Medical Officer  
DR. R. RAMAKRISHNAN MS., DO  
Glaucoma Clinic  
Chief / Professor  
DR. R. RAMAKRISHNAN MS., DO  
Asst.Professor  
DR. MOHIDEEN ABDUL KADER DNB  
DR. NEETU ASHEER MS

### Retina - Vitreous Clinic

Asst.Professor  
DR. ASHER SANDEEP MS

### IOL & Cataract Clinic

Professor  
DR. SHIVKUMAR CHANDRASHEKAR MS  
Asst.Professor  
DR.SACHIN BODHALE MS  
Medical Officers  
DR. APOORVA SHARMA DO  
DR. ANKIT AVATHI DNB

### Orbit & Oculoplasty Clinic

Asst.Professor  
DR. V. MANEKSHA MS

### Neuro-ophthalmology Clinic

Reader  
DR. S. PADMAVATHY MS

### Cornea & Paediatric Clinic

Reader  
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Asst.Professor  
DR. SAURABH MITTAL DNB

### Free Hospital

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

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### Paediatric Ophthalmology & Strabismus Clinic

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DR. SRI SHANKAR MS  
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