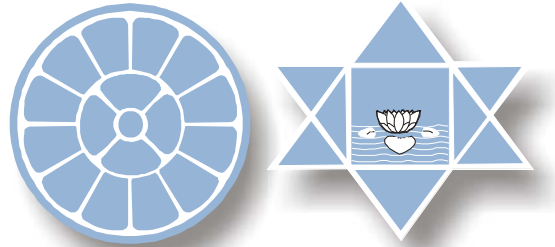


ACTIVITIES REPORT 2002



ARAVIND EYE CARE SYSTEM



Yet shall the godhead grow within your hearts,
You shall awake into the spirit's air
And feel the breaking walls of mortal mind
And hear the message which left life's heart dumb
And look through Nature with sun-gazing lids
And blow your conch-shells at the Eternal's gate.
Authors of earth's high change, to you it is given
To cross the dangerous spaces of the soul
And touch the mighty Mother stark awake
And meet the Omnipotent in this house of flesh
And make of life the million-bodied One.

- Sri Aurobindo, 'Savitri', Book IV, Canto Three



Compiled, edited, designed and published by
- Aravind Communications

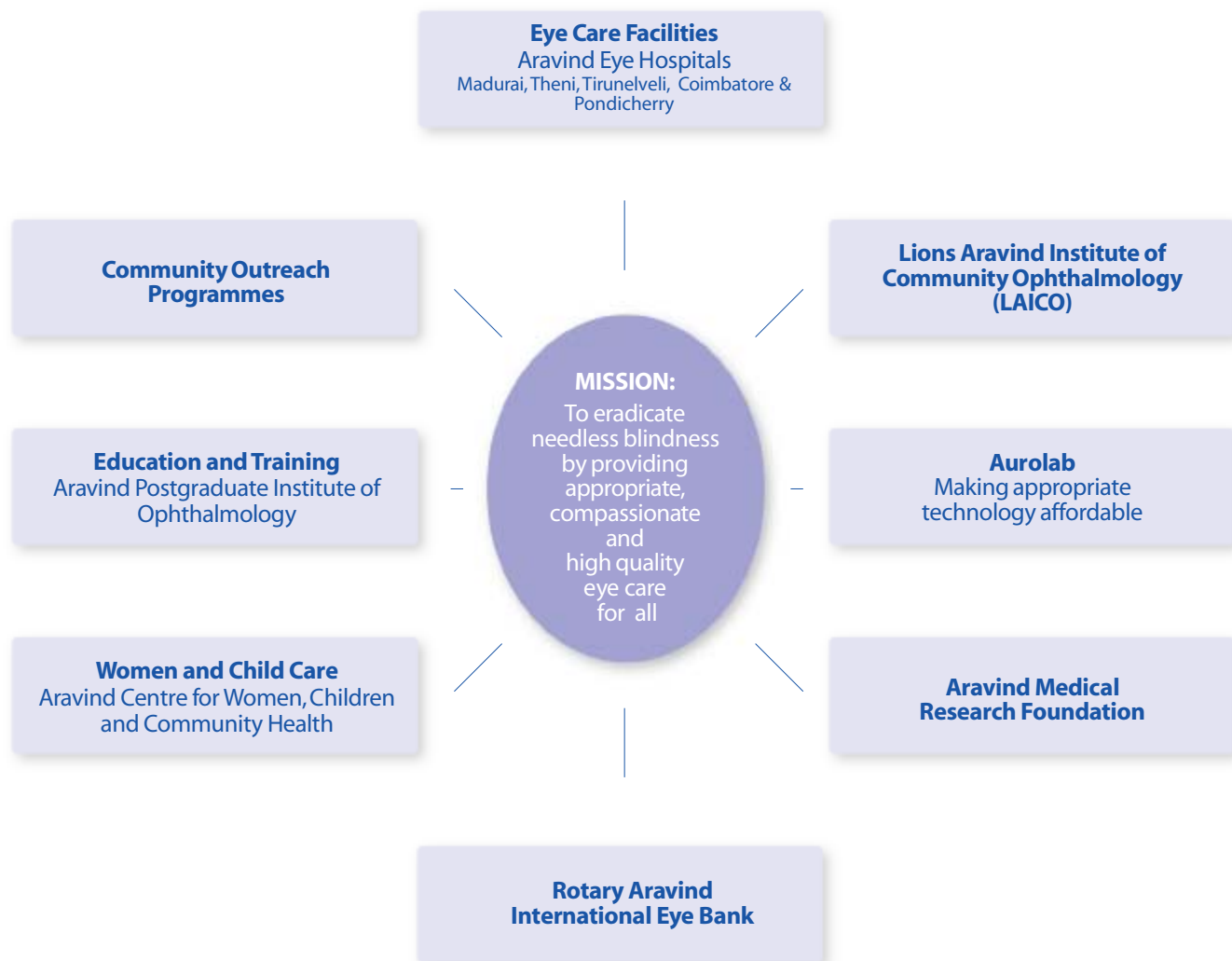
Photography
- Aravind Audio-Visual Department
- Mr. Natarajan, Focal Point, Madurai

Sketch of LAICO
- Mr. Manohar Devadoss, Chennai

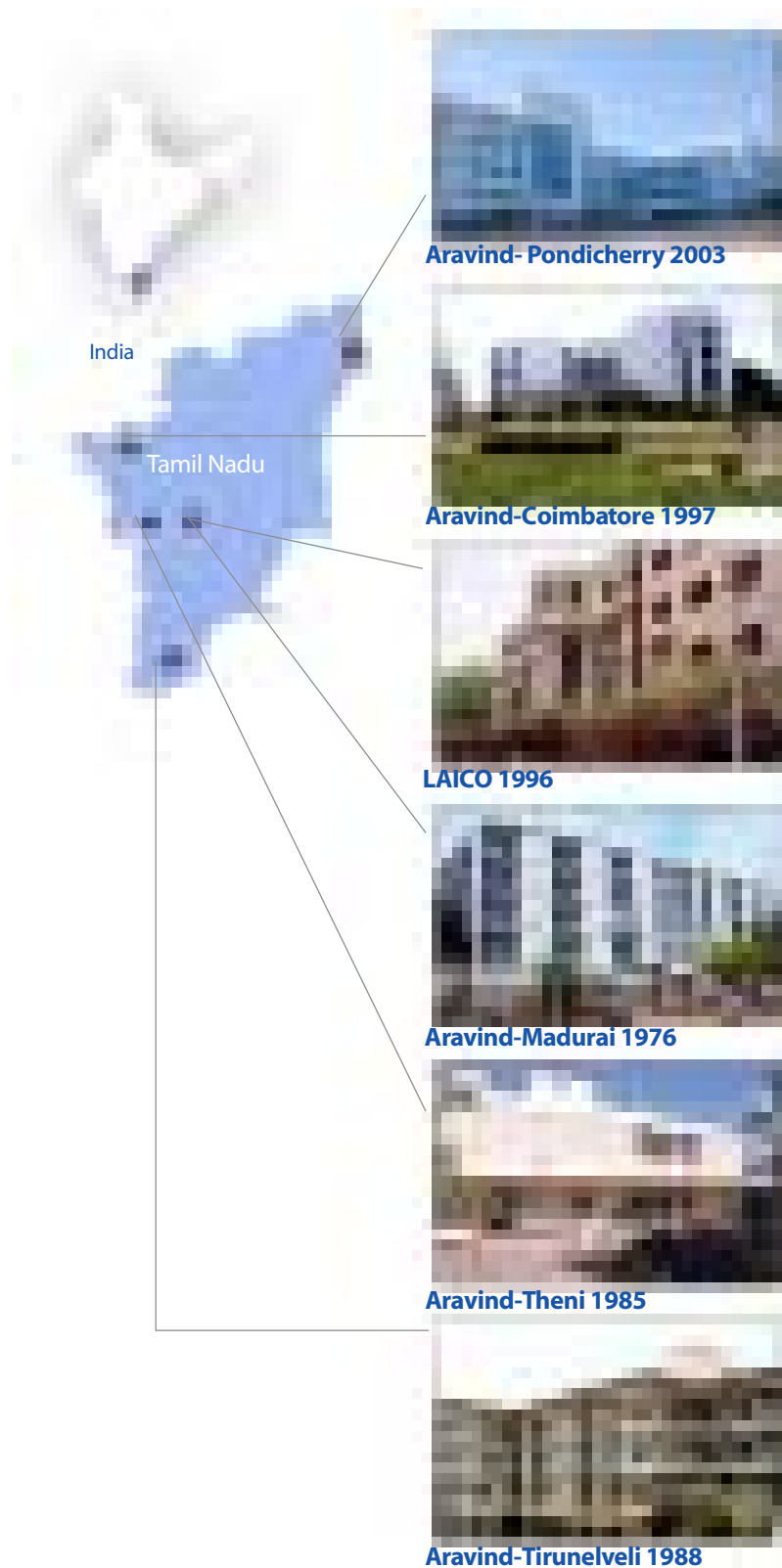
Background Rangoli
- Sr. Anbumari, Aravind-Madurai



ARAVIND EYE CARE SYSTEM



Aravind Eye Care System



ARAVIND EYE HOSPITALS

PAYING & FREE SECTIONS

- Aravind-Madurai
- Aravind-Theni
- Aravind-Tirunelveli
- Aravind-Coimbatore
- Aravind-Pondicherry

SPECIALTY CLINICS

- Retina Vitreous
- Cataract & General Ophthalmology
- Cornea
- Paediatric Ophthalmology,
- Strabismus & Contact Lens
- Glaucoma
- Uvea
- Orbit & Oculoplasty
- Neuro-Ophthalmology
- Vision Rehabilitation Centre

SUPPORT FACILITIES

- Ocular Microbiology Laboratory
- Ophthalmic Research Laboratory
- Immunology
- Biochemistry Laboratory
- Radiology Department
- Instruments Maintenance
- Laboratory
- Patient Counselling Services
- Audio-Visual Department
- Aravind Library & Information
- Centre
- Aravind Communications Division

COMMUNITY OUTREACH

Free Eye Camps
School Eye Health Screening
Village Volunteers Programme
Community Based Rehabilitation Programme
Refraction Camps
Diabetic Retinopathy Detection & Awareness Camps

EDUCATION AND TRAINING

ARAVIND POSTGRADUATE INSTITUTE OF OPHTHALMOLOGY
LIONS ARAVIND INSTITUTE OF COMMUNITY OPHTHALMOLOGY (LAICO)
Postgraduate Courses in Ophthalmology
Fellowship Programmes
Short-term Training Programmes
Continuing Medical Education Programmes
Paramedical Courses

CONSULTANCY AND CAPACITY BUILDING

LIONS ARAVIND INSTITUTE OF COMMUNITY OPHTHALMOLOGY (LAICO)
Capacity Building for Eye Hospitals
Management Courses in Health Care
Task-oriented Training Courses
Custom Designed Courses

EYE BANK

ROTARY ARAVIND INTERNATIONAL EYE BANK
Donor Screening
Collection, Evaluation, Preservation and Distribution of Corneas
Training in Eye Banking
Training in Corneal Transplants

RESEARCH

ARAVIND MEDICAL RESEARCH FOUNDATION
Population-based Epidemiologic Surveys
Health Systems Research
Hospital and Community-based Randomised Clinical Trials

Basic Laboratory Research–
Genetics, Microbiology,
Biochemistry

WOMEN AND CHILD CARE

Aravind Centre for Women, Children and Community Health
Primary Health Care Programmes
Health Awareness Programmes
Nutrition Related Blindness Prevention Programme

DEVELOPMENT OF COST EFFECTIVE TECHNOLOGY

AUROLAB
Intraocular Lens Division
Suture Needle Division
Pharmaceutical Division
Spectacle Lens Division
Hearing Aid Division

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The Year 2002

While its focus on patient care, education and commitment to the community has remained undiminished, other new developments have seen Aravind consciously aligning its manifold activities to support the realisation of the goal of Vision 2020 - The Right to Sight

Dr.V is congratulated by Giandomenico Picco, Vice President, Pio Manzu Centre at Rimini, Italy where he received the medal of the Presidency of the Italian Republic in October 2002



Ever since its inception 26 years ago, Aravind's passionate commitment towards eliminating needless blindness has driven it onward and upward.

In its own unique way Aravind has tirelessly pursued this goal and helped others across the world to do the same. So when the International Agency for the Prevention of Blindness and the World Health Organization recently launched the global initiative, "Vision 2020 – The Right to Sight", with the stated goal of "eliminating avoidable blindness by the year 2020", it was only natural for Aravind to fall in step with their mission.

The year of 2002 saw Aravind Eye Care System grow and mature in distinct ways. While its focus on patient care, education and commitment to the community has remained undiminished, other new developments have seen Aravind consciously aligning its manifold activities to support the realisation of Vision 2020 goals. At the national level it contributed to this by participating in the development of the Vision 2020 Action Plan for India. At the global level, Aravind participated in the planning meetings organized by WHO to address various issues relating to cataract and paediatric ophthalmology services and to develop indicators for monitoring Vision 2020 initiatives.



Refraction and delivery of spectacles right at the camp-site



Presentation on diabetic retinopathy to medical shop owners



Screening Camp for diabetic retinopathy

Growing Contribution

Over the years, Aravind has developed a singularly effective, innovative and sustainable method for addressing blindness and vision impairment caused by cataract, the leading cause of blindness world over. The generic principles and fundamental concepts developed here relating to service marketing, screening eye camps, base hospital surgery, IOL implantation, etc., are now being successfully adopted in many developing countries. Today, Aravind is poised to make parallel contributions in the fields of refractive errors, low vision, paediatric ophthalmology, glaucoma and diabetic retinopathy, based on the extensive experience gained from treating a large volume of patients and training ophthalmologists and support staff through innovative service delivery models in these disciplines. The activities in these areas are being further strengthened and models developed so that the consolidated knowledge gained from Aravind's approach and experience, along with the successful strategies evolved, can be shared more rapidly with other eye care programmes in the developing world.

Refraction Camps

In the field of refractive errors Aravind has now introduced a system for on-the-spot dispensation of prescription glasses in the community. Today thousands of patients attending screening eye camps benefit from this new system, where a wide range of prescription glasses with quality frames and lenses are available immediately at a fraction of the cost the patients would otherwise incur. This mode of outreach has been extended to industries, offices and educational institutions in order to more directly address the enormous problem of refractive errors.

Centres of Excellence

Recognising that diabetic retinopathy is an emerging public health problem, the Lions International came forward to fund a project at Aravind geared at developing a comprehensive community-oriented model for providing diabetic retinopathy services. In addition, the Government of India through the Department of

The Year 2002



Dr. R. Ramakrishnan with Mr. V. Srinivasan of Carl Zeiss, India at the inauguration of Aravind-Zeiss Centre of Excellence in Glaucoma at Aravind-Tirunelveli



Dr. Shamik Ambatkar explaining the state-of-the-art equipment in the Aravind-Zeiss Centre of Excellence in Glaucoma to Mr. Harmandar Singh IAS, the Commissioner of Tirunelveli Corporation



A child with low vision taught to use a directory magnifier to read



Dr. Ilango examining a child at the Vision Rehabilitation Centre

Science and Technology is now supporting the development of a “Centre Of Relevance and Excellence in Diabetic Retinopathy” under their TIFAC – CORE initiative. Aravind will be making matching investments under this arrangement as it strives to become the ultimate centre for patient care, research and training in diabetic retinopathy. These two complementary projects under the leadership of Dr. P. Namperumalsamy significantly contribute to the control of visual impairment and blindness due to diabetic retinopathy.

Yet another exciting event this year was the founding of the “Aravind-Zeiss Centre of Excellence in Glaucoma”. A partnership between Aravind and Zeiss

headed by Dr. R. Ramakrishnan at Aravind-Tirunelveli, this centre is a reflection of the joint commitment of both organisations to the growth and development in the field of glaucoma treatment through training and human resource development.

The Paediatric Ophthalmology Centre at Aravind, the oldest and most active centre in the country is now poised to evolve in major ways that will contribute a great deal to the Vision 2020 initiative. Population based research studies and operational research activities are currently under way and several valuable training activities have been added.

During the year 2002, Aravind’s Low Vision Services showed considerable growth both in terms of

the number of patients assisted, and in the in-house development of appropriate and affordable low vision devices like CCTV (Closed Circuit TV) camera, optical devices, etc.

Recognising the inherent potential of the specialty clinics in the emerging national and global scene, each clinic at Aravind-Madurai now has larger working space. The new facilities are designed for enhanced patient care and training.

In order to keep pace with the tremendous growth of the hospital, construction of quarters for the post-graduates and nurses is in full-swing at Aravind-Tirunelveli. And in Pondicherry, a fifth hospital is racing towards completion under the untiring supervision of Trust Secretary Mr. G. Srinivasan. This hospital, located in a 15 acre campus, with an area of over 245,000 sq. ft. and another 74,000 sq. ft. of residential accommodation will be completed in record time of fifteen months and will be functional from February 2003.

The research activities under the leadership of Dr. VR. Muthukaruppan are rapidly expanding into genetics, virology (Rubella) and immunology.

In 2002, there has been tremendous development in the eye donation activity. About 1900 eyes were collected by the Rotary Aravind International Eye Bank at Madurai and the Aravind Eye Bank at Coimbatore.

Aurolab, with its mission to make quality eye care products affordable to all, continues to expand its impressive product line. Recent additions have been foldable IOLs and several new pharmaceutical formulations. Aurolab has now branched out into the field of manufacturing digitally programmable, high quality affordable hearing aids. This project fulfils a commitment made to the visionary Englishman Sir John Wilson. This project is being carried out under the leadership of Mr. David Green.

Partners in eye care delivery

LAICO for its part continues to work with other eye hospitals in developing countries, using the Aravind model to facilitate a capacity-building process. During the year 2002, LAICO's reach extended to hospitals in

Expanded patient waiting space and doctor's examination areas, and pleasantly decorated interiors in all the specialty clinics at Aravind-Madurai provide a cheerful atmosphere to the patients.



Children's eye care centre



Retina Clinic

the countries like Indonesia, Bangladesh, El Salvador, Tanzania and other African countries and currently partners with 145 eye hospitals. The Lions and other agencies like WHO, International Eye Foundation and Sight Savers support a significant portion of these activities. A grant from the International Agency for the Prevention of Blindness (IAPB) for management training and support from the International Eye Foundation will enable LAICO to take big strides in making available several critical resources to other eye care programmes. These efforts too will be aimed at assisting the mission of Vision 2020.

Women and Child Care

The Aravind Centre for Women, Children and Community Health continues in its various strategies for the sustained improvement of women's and children's health by empowering the community in general and women in particular. This experiment is continuing very satisfactorily in the Kariapatti block with active involvement and participation from the Government health centre. Dr. Lakshmi Rahamathullah who heads this initiative is also a key voice in framing the nutrition policy for Tamil Nadu.

Aravind Tele-ophthalmology Network (ATN)

Telemedicine services at Aravind is supported by Acumen Fund and Orbis International for consultation and training. It is now used regularly, not just between the various units of Aravind Eye Hospitals but also with other reputed eye care centres across the world. The first telemedicine session, conducted from Madurai at the State Ophthalmic Conference in Trichy, as well as the first joint grand rounds presentation, held between Wilmer Eye Institute at John Hopkins and Aravind-Madurai, generated a great deal of enthusiasm on both sides of the globe.



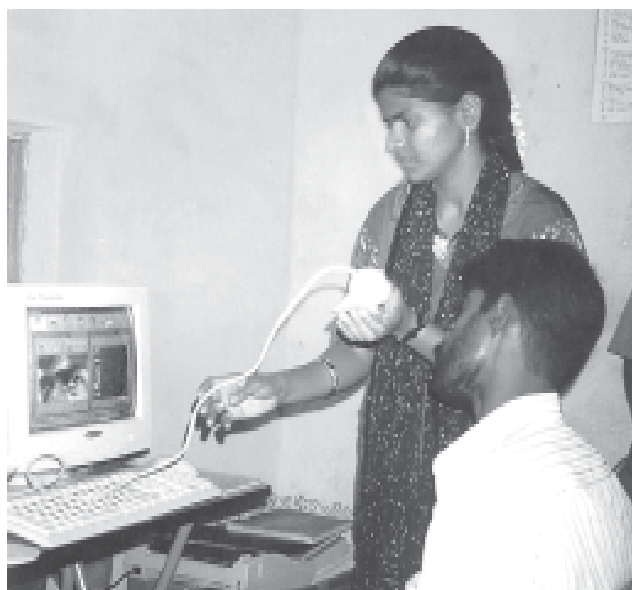
It was a landmark for Aravind Tele-ophthalmology Network on 19th December 2002, when Aravind Eye Hospital, Madurai and Wilmer Eye Institute together had a Grand Rounds session in the presence of Dr. Morton Goldberg at Wilmer and Dr. G.Venkataswamy and Dr. P.Namperumalsamy at Aravind-Madurai.



Dr. APJ. Abdul Kalam, the then Scientific Advisor to Government of India discussing about Aravind Tele-ophthalmology Network with Dr. G. Venkataswamy, Dr. P. Namperumalsamy, Dr. R. Kim and Dr. S. Aravind during his visit to Aravind in April 2002



Dr. Leonard Goldschmidt, Medical Director, Tele health and Medical Informatics, USA with Mr. R.D. Thulasiraj, Dr. R. Kim and Ms. K.M. Sashipriya



Ms. Rosy at her internet kiosk in Pathinettankudi, a village near Madurai capturing the image of the patient's eye using a webcam. The image will be sent to Aravind-Madurai, where a doctor will advise him on further treatment, most often followed by a visit to the hospital (Both free & pay).

These are early days yet, but the scope and possibility of telemedicine promises many rapid, exciting advancements not just for Aravind, but for the broader cause of effective eye care delivery.

Rural Connectivity

Aravind is doing pioneering work using information technology to promote primary eye care and health education. In these efforts Aravind has teamed up with 'n-Logue', a dynamic initiative working to establish sustainable connectivity in rural India. Through the rural internet kiosks facilitated by n-Logue, patients in villages around Madurai are now able to interact with the ophthalmologists at Aravind-Madurai for consultation.

Awards and Recognitions

The year 2002 saw its share of several of the Aravind staff being honoured. Dr. G. Venkataswamy was honoured by Pio Manzu International Research Centre, Italy which gave him the Presidency Medal of the Italian Republic and invited him to deliver a talk on "The teachings of Aravind: the art of healing" to an illustrious audience from the world over.

All three office bearers of the Glaucoma Society of India elected at the General Body Meeting held in 2002, are from Aravind Eye Hospitals- Dr. R. Ramakrishnan of Aravind-Tirunelveli, the President, Dr. S.R. Krishnadas of Aravind-Madurai, the Secretary and Dr. P. Sathyan of Aravind-Coimbatore, the Treasurer.

Statistics 2002

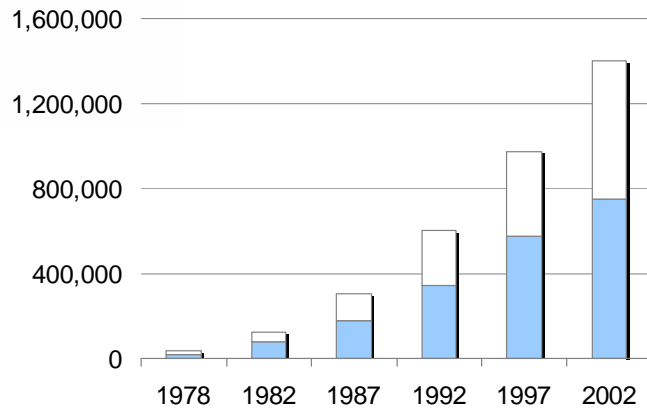
	Madurai	Tirunelveli	Theni	Coimbatore	Total
OUT-PATIENT VISITS					
Paying	276,548	132,272	40,149	201,078	650,047
Free (Direct & Camp)	328,651	138,425	41,685	240,563	749,324
SURGERY					
Paying	34,510	12,107	1,863	19,575	68,055
Free (Direct & Camp)	66,363	19,719	5,273	37,029	128,384
HOSPITAL OUT-PATIENT VISITS	409,755	182,356	60,035	285,463	937,609
EYE CAMP OUT-PATIENT VISITS	195,444	88,341	21,799	156,178	461,762
TOTAL OUT-PATIENT VISITS	605,199	270,697	81,834	441,641	1,399,371
SCREENING CAMPS	590	364	132	463	1,549

Surgeries

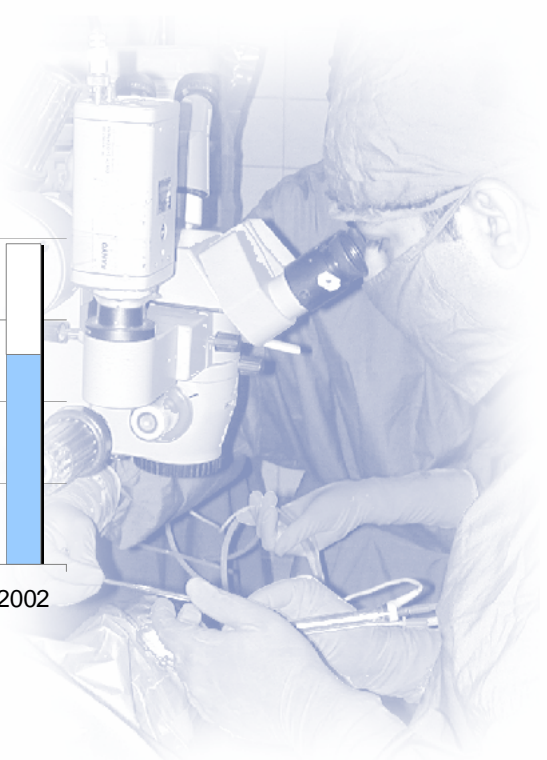
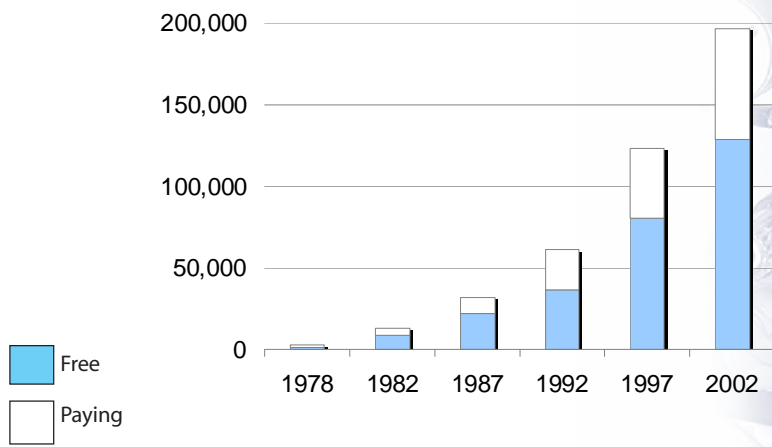
Extra Capsular Cataract Extraction (ECCE) & other lens removal procedure without IOL	1,257	1,862	99	1,259	4,477
ECCE with IOL implantation	40,962	4,383	6,084	9,651	61,080
ECCE IOL implantation with Phaco	9,900	3569	262	7,626	21,357
Small Incision Cataract Surgery	27,503	14,984	0	24,797	67,284
Trabeculectomy & combined procedures	1,437	690	38	952	3,117
Retinal Detachment	625	64	0	315	1004
Vitreous surgery	503	32	1	584	1,120
Membranectomy	39	4	0	21	64
Squint correction	524	89	0	218	831
Keratoplasty	306	39	0	164	509
Pterygium	226	162	12	412	812
Ocular injuries	317	90	26	403	836
Orbitotomy	55	1	0	3	59
Ptosis	138	6	0	70	214
Lid & Socket reconstruction	951	138	23	166	1,278
Lacrimal surgeries	2,030	884	97	990	4,001
Other Orbit and Oculoplasty surgeries	376	40	8	11	435
Others	2,088	548	131	2,784	5,551
Laser procedures					
Laser photocoagulation	6,652	1,995	209	3,423	12,279
Nd.Yag iridectomy	1,544	971	45	732	3,292
Nd.Yag capsulectomy	2,333	1,269	101	1,563	5,266
Argon Laser Trabeculoplasty	0	6	0	12	18
LASIK refractive surgery	1,107	0	0	448	1,555
TOTAL	1,00,873	31,826	7,136	56,604	196,439



OUT-PATIENT VISITS



SURGERIES



Community Outreach Programmes

Community based awareness programmes have helped Aravind in its mission of eradicating needless blindness in the society. Effect of such programmes does reflect on the increase in the volume of service done every year.

'The more people he gave sight to, he (Dr. V) reasoned, the less the helplessness and poverty.'

'It is a monument to one man's vision of combining free enterprise with charity in service of society.'

- B. Surendar,
'Man's world' October 2002



Free Eye Camps

In the year 2002, Aravind Eye Hospitals conducted 1,549 eye camps in which a total of 461,762 people were screened and 92,372 underwent surgery.

While in the community, the Aravind team is also involved in educating the community on proper eye care. Aravind is currently implementing several community based comprehensive eye care projects. These projects include screening for diabetes related eye disorders, eye screening at schools and treatment of children suffering from refractive errors, strabismus and Vitamin A deficiency.

Diabetic Retinopathy Management in the Community- A Pilot Project

The main objective of the project is to create awareness about diabetic retinopathy in the community. In the year 2002, 46 screening camps were organised in the project districts (Madurai, Theni and Coimbatore) through which 11,644 patients were screened for diabetes and 3,343 patients were found to be diabetic. Among the diabetic patients 533 were diagnosed with diabetic retinopathy. Leaflets, posters and booklets on diabetic retinopathy were distributed during the seminars, symposiums, health education training, guest lectures, in the clinics and also during screening camps.

Community Based Rehabilitation (CBR) Project

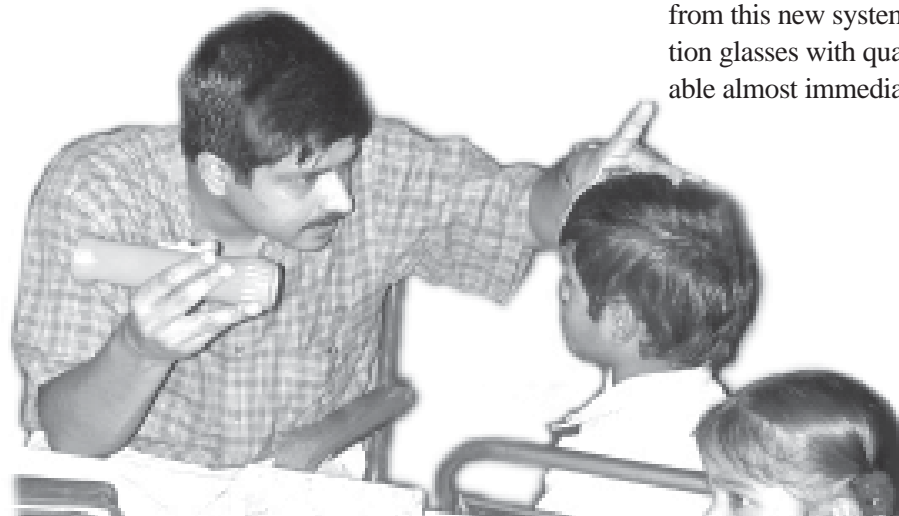
In collaboration with Sight Savers International, Aravind Eye Hospitals, Theni started the Community Based Rehabilitation (CBR) Project on 1st

May 1996 in Theni District. The third and final phase of the Project covered three blocks-Uthamapalayam, Cumbam and Bodinayakanur of Theni District, covering a population of about 2,50,000. It was completed on 30th September 2002. In these areas 249 incurable blind persons were identified. Trained field workers worked with 175 blind persons and rehabilitated them through training in orientation, mobility, independent daily living skills and personal care, etc. Sixty eight persons were economically rehabilitated.

In Theni District, totally 653 incurably blind persons were identified through this project. Of this, 470 persons (72%) were rehabilitated by the trained field workers through various skills.

Eye Screening for School Children

During the year 2002, 68,528 children in 80 schools were screened for eye defects and 3,075 children were given glasses to correct their refractive errors.



Dr. George V. Puthuran examining the eyes of a child at a school eye screening camp



Project co-ordinator Shakthi Anand explaining the effect of diabetes on vision to a patient at a Diabetes awareness programme for the public

Refraction Camps

Recognising the magnitude of the problem of refractive errors among the working population, Aravind has now introduced a system for on-the-spot dispensation of prescription glasses in the community. Today thousands of patients attending refraction eye camps benefit from this new system where a wide range of prescription glasses with quality frames and lenses are available almost immediately at a fraction of the cost they

	Madurai	Theni	Tirunelveli	Coimbatore
No. of Schools	18	19	35	8
Teachers trained	159	104	55	13
Children screened	27,336	16,025	18,182	6985
Children with eye defects	1,121	1080	1069	654
Children with refractive errors	964	540	997	574

Community Outreach Programmes



Refraction camps conducted in industries, offices and educational institutions.

would otherwise incur. This mode of outreach has been extended to industries, offices and educational institutions in order to more directly address the enormous problem of refractive errors.

Vision Care Project: Aravind-Tirunelveli

Under the Avoidable Blindness Initiative of Rotary International, the Rotary club of Courtallam Central in association with Aravind-Tirunelveli and with financial aid from the Rotary Foundation is embarking on the project “VISION CARE” carried out in all the Middle, High school and Higher Secondary School totaling 42 schools in the Thenkasi taluk. On the inauguration on January 10th Mr. MRPR. Mannar, President of Rotary club of Courtallam welcomed the guests. Mr. Sunil Paliwal, District Collector, Tirunelveli inaugurated the vision screening training.

Dr. R. Ramakrishnan, Aravind-Tirunelveli and Mr. T. Muthukrishnan, CEO, Tirunelveli felicitated. More than 74 teachers attended the function. Medical officers at Aravind-Tirunelveli, gave training programme to teachers and Rotarians.

Eye Camps – 2002

SPONSORS	CAMPS	OUT-PATIENTS	CAT+IOL	OTHERS	TOTAL
Lions Clubs	400	145,707	28,834	1,057	29,891
Rotary Clubs	102	39,141	8,961	333	9,294
Vivekananda Kendra	59	12,769	2,509	83	2,592
Sri Satya Sai Samithi	8	2,634	615	13	628
Religious Organisations	91	35,361	7,444	219	7,663
Jaycees	7	3237	590	23	613
Banks	43	11227	1,431	55	1,486
Mills and Factories	23	12,077	2,789	86	2,875
DBCS	170	25,299	6,852	227	7,081
Educational Institutions	80	17,306	2,665	83	2,748
Hospitals	69	17,573	2,912	101	3,013
Trusts	47	20,681	4,645	140	4,785
Youth and Fans Associations	35	8,227	1,447	55	1,502
Other Voluntary Organisations	199	53,146	7,773	339	8,112
Others	216	57,377	9,731	358	10,089
TOTAL	1,549	461,762	89,200	3,172	92,372

Education and Training

The multi-faceted training programmes offered at Aravind Eye Care System, has provided support for ophthalmologists and eye care service providers round the globe.

Aravind Postgraduate Institute of Ophthalmology

Postgraduate Training in Ophthalmology

In affiliation with,

—Dr. MGR Medical University, Chennai

Diploma in Ophthalmology (DO)

Eight candidates underwent the training course.

MS in Ophthalmology (MS)

Four candidates underwent the training course.

— National Board of Examinations, New Delhi

Diplomate of the National Board (Dip. NB)

Seven candidates underwent the training course.

Fellowship programmes

The fellowship programmes are designed to enable ophthalmologists to enhance their professional skills through advanced training in specific areas of their choice.

Short-term Courses for Practising Ophthalmologists

IOL Microsurgery Training Programme

During 2002, a total of sixty ophthalmologists were trained at Aravind-Madurai, Aravind-Coimbatore and Aravind-Tirunelveli. Candidates from Germany, France, UAE also underwent this training programme.

Lasers in Diabetic Retinopathy Management

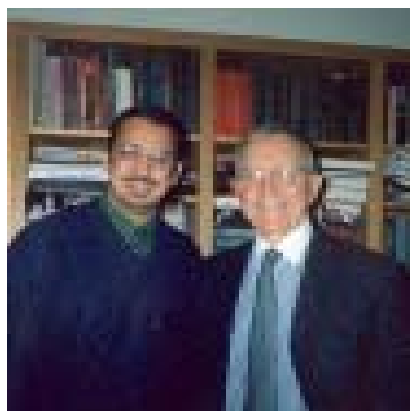
The two courses including ‘Training in Indirect Ophthalmoscopy’ and ‘Lasers in Management of Diabetic Retinopathy’ are now being offered with support from the Lions SightFirst Programme as a combined course at Aravind-Madurai and Aravind-Coimbatore. Forty-two ophthalmologists were trained in the year 2002.

Diagnosis and Management of Glaucoma

This course offered at Aravind-Madurai and Aravind-Tirunelveli trained ten candidates in 2002. The Aravind-Zeiss Centre of Excellence in Glaucoma, started at Tirunelveli, has now taken over as the main host for this course.

Visiting Residents

Students from various universities in the US come to Aravind during the final year as part of their residency in Ophthalmology. In the year 2002, seven residents from the following institutions were at Aravind. Wilmer Eye Institute, Baltimore; Kresge Eye Institute, Detroit and Massachusetts Eye & Ear Infirmary, Boston.



Dr. Dhananjay Shukla with Dr. Lawrence Yannuzzi, New York Eye, Ear and Throat Hospital, USA

Training in Ophthalmic Nursing and Housekeeping

The paramedical staff and support staff such as housekeeping, catering, optical and pharmaceutical dispensing staff at Aravind Eye Hospitals are all in-house trained. The training curriculum is designed essentially to meet the needs of the hospitals.

Specialty Training

Dr. Revathi, Cornea Consultant from Aravind-Coimbatore was in the US for 10 weeks to observe the clinical and surgical facilities, learn the recent advances, observe training, research and administrative methods and develop contacts with eminent people in the field of Cataract, Cornea & Refractive procedures. She visited Massachusetts Eye & Ear Infirmary and Ophthalmic Consultants of Boston and interacted with starwalts like Dr. Roger Steinert, Dr. Micheal Raizman, Dr. Bradford Shingleton and Dr. Dimitri Azar. At Wilmer Eye Institute of John Hopkins University she observed Dr. Walter Stark's surgeries and Dr. Terrence O' Brian's laser refractive procedures. She also visited the International Eye & Tissue bank. At Wills Eye Hospital in Philadelphia she attended a two-day scientific session in which many of their renowned ex-students and faculty took part. She also visited the Scheie Eye Institute and their Low Vision center.

Dr. Dhananjay Shukla, Consultant, Retina-Vitreous Service, Aravind-Madurai was in the US to learn the latest developments there in the field of retina-vitreous. He visited Wilmer Eye Institute, Baltimore as an observer for 3 days. He attended the Annual Conference of American Academy of Ophthalmology, Orlando, Florida and presented a free paper on 'Macular Ischaemia as a marker for Nephropathy in Diabetic Retinopathy'. Then he observed Dr. Mathew Davis and Senior Reader's work at the Fundus Photographic Reading Center at Madison, Wisconsin. He spent 3 weeks at the Vitreous- Retina - Macula Consultants and New York Eye, Ear and Throat Hospital, New York with Dr. Lawrence Yannuzi, Dr. Yale Fisher and Dr. Richard Spaide. He also observed Dr. Stanley Chang in surgery at Presbyterian Hospital, NY.



Dr. P. Vijayalakshmi explaining a case to the Paediatric Ophthalmology Fellows at Aravind-Madurai



Dr. Revathi with Dr. Peter Leibson, Dr. Christopher Rapuano and Dr. Elizabeth Cohen in Wilmer Eye Hospital, Philadelphia



Dr. Minu Mathen conducting a CME programme for Nurses at Aravind-Madurai

Lions Aravind Institute of Community Ophthalmology (LAICO)

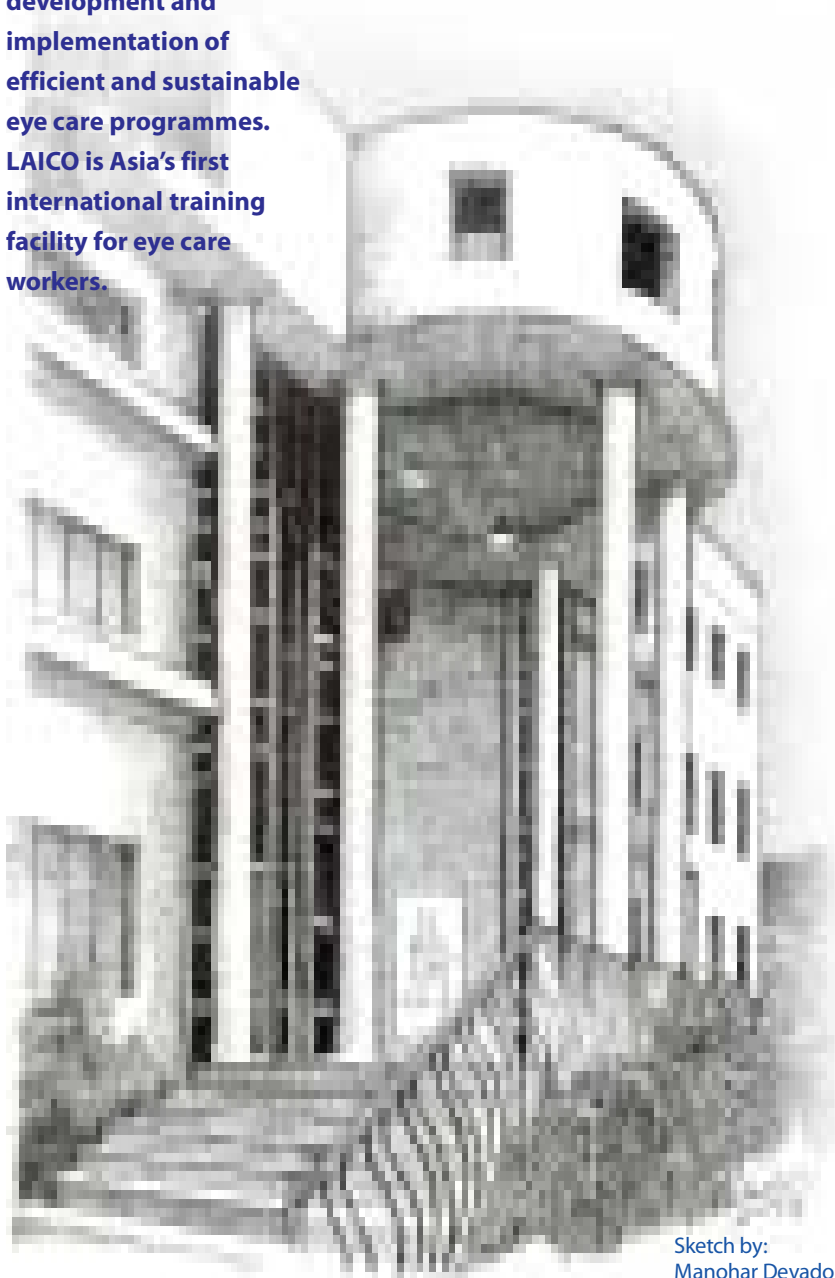
Driven by a mission to contribute to the prevention and control of global blindness, the institute trains health related and managerial personnel in the development and implementation of efficient and sustainable eye care programmes. LAICO is Asia's first international training facility for eye care workers.

Consultancy for Capacity Building

LAICO currently partners with 145 eye hospitals located across India, SouthEast Asia and Africa for capacity building. It works in collaboration with INGOs like Lions International, SightSavers International, CBM International, IEF, WHO and Seva Foundation.

Lions Eye Hospitals

1. Dr. Ranga Reddy Lions Eye Hospital, Secunderabad, Andhra Pradesh
2. Lions Eye Hospital, Hyderabad, Andhra Pradesh
3. Silchar Central Lions Eye Hospital, Silchar, Assam
4. Jorhat Lions Eye Hospital, Assam
5. Lions RK Memorial Eye Hospital, Dhanbad, Bihar
6. Gujarat Blind Relief and Health Assoc. Eye Hospital, Chikhodara, Gujarat
7. Lions Eye Hospital, Koppal, Karnataka
8. Lions Eye Hospital, Chintamani, Karnataka
9. Lions Eye Hospital, Jaora, Madhya Pradesh
10. Udayachal Charitable Eye Hospital, Rajnandgaon, Madhya Pradesh
11. Lions Eye Hospital, Sagar, Madhya Pradesh
12. Labh Muni Lions Eye Hospital, Mandasaur, Madhya Pradesh
13. Lata Mangeshkar Lions Eye Hospital, Nagpur, Maharashtra
14. Lions Tarachand Baba Hospital, Mumbai, Maharashtra
15. Lions Sital Prasad Jain Eye Hospital and Diagnostic Centre, Dahisar, Maharashtra
16. Rourkela Vedvyas Lions Eye Hospital, Rourkela, Orissa
17. Lions Eye Hospital, Jalandhar, Punjab
18. Lions Eye Care Centre, Jaitu, Punjab
19. Rani Lions Eye Hospital, Rajasthan
20. Bhilwara Lions Eye Hospital, Bhilwara, Rajasthan

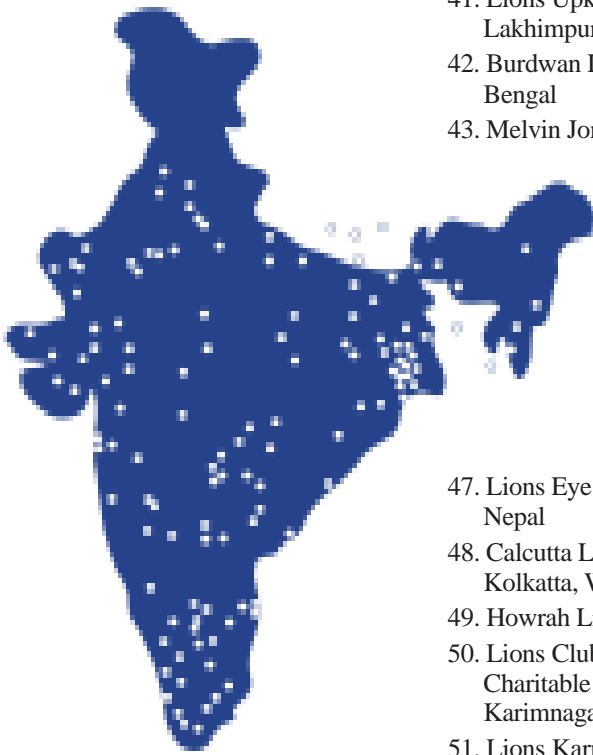


Sketch by:
Manohar Devadoss

21. Lions Club of Madras (Host) Shri Maganlal Hansraj Eye Hospital, Chennai, Tamilnadu
22. KG Eye Hospital, Coimbatore, Tamilnadu
23. Lions Eye Hospital, Balrampur, Uttar Pradesh
24. Lions Eye Hospital, Gaziabad, Uttar Pradesh
25. Maharani Laxmibai Memorial Eye Hospital, Jhansi, Uttar Pradesh
26. Sawhney Lions Eye Hospital, Rampur, Uttar Pradesh
27. Lions Eye Hospital, Alipurduar, West Bengal
28. Siliguri Greater Lions Eye Hospital, Siliguri, West Bengal
29. Dhaka Progressive Lions Eye Hospital, Narsingdi, Bangladesh
30. Jyoti Manav Seva Sansthan Hospital, New Delhi

31. Gandhi Shatabdi Mahabir Prasad Eye Hospital, Mirzapur, Uttar Pradesh
32. Panagarh Bazar Lions Eye Hospital, West Bengal
33. Lions Club of Idar and SBNSSPVM Eye Hospital, Idar, Gujarat
34. Lions Eye Hospital, Medak, Andhra Pradesh
35. Lions Eye Care Centre, Kathmandu
36. R.M. Kedia Eye Hospital, Birganj, Nepal
37. Lions Charitable Eye Hospital, The Chittagong Lions Foundation, Bangladesh
38. Lions Eye Hospital, Bangladesh Lions Foundation, Dhaka, Bangladesh
39. Lions SightFirst Eye Hospital, Nairobi, Kenya
40. Lions Eye and Blood Centre, Mombassa, Kenya
41. Lions Upkar Netra Chikitsalaya, Lakhimpur Kheri, Uttar Pradesh
42. Burdwan Lions Eye Hospital, West Bengal
43. Melvin Jones Lions Eye Hospital, Cuttack, Orissa
44. Lions Club of Imphal, Manipur
45. Lions Rajkot Race Course Eye Hospital, Gujarat
46. Lions Eye Care Trust Hospital, Dharmavaram, Andhra Pradesh
47. Lions Eye Care Centre, Dolakha, Nepal
48. Calcutta Lions Netra Niketan, Kolkatta, West Bengal
49. Howrah Lions Hospital, Howrah
50. Lions Club of Karimnagar Charitable Eye Hospital, Karimnagar, West Bengal
51. Lions Karnavati Shantaben Vishnubai Patel Eye Hospital, Karnavati, Gujarat

52. Lions Hospital and Research Centre, Khizrabad, New Delhi
53. M. Ram Reddy Lions Eye Hospital, Mahabubnagar, Andhra Pradesh
54. Lions NAB Eye Hospital, Miraj, Maharashtra
55. Mysore Race Club Eye Hospital, Mysore, Karnataka
56. Smt. Rajeswari Ramakrishnan Lions Eye Hospital, Nidadovole, Andhra Pradesh
57. Rajvalli Radharaman Lions Eye Hospital, Palakol, Andhra Pradesh
58. Raniganj Lions M.J. Memorial Lions Eye Hospital, Raniganj, West Bengal
59. Sadharam Eye Hospital Charitable Trust and Postgraduate Institute of Ophthalmology, Sadharam, Andhra Pradesh
60. Lions Club of Secunderabad Eye Institute, Secunderabad, Andhra Pradesh
61. Lions Club of Suryapet Eye Hospital, Suryapet, Andhra Pradesh
62. Lions Eye Hospital, Tiruvarur, Tamilnadu
63. Smt. Vallabhaneni Sitamahalakshmi Lions Eye Hospital, Vijayawada, Andhra Pradesh
64. Viramgam Sarvajanic Eye Hospital, Viramgam, Gujarat



LAICO works with 145 eye hospitals in India and other countries



Dr. Minu Mathen and Mr. Keerti Pradhan at Netra Jyothi Hospital, Barmer, Rajasthan



Mr.R.D.Thulasiraj, Dr.R.D.Ravindran and Mr.S.Saravanan reviewing the performance with the hospital management team of the National Institute of Ophthalmology, Dhaka, Bangladesh

65. Lion Chandulal Agarwal Memorial Eye Hospital, Manendragarh, Chattisgarh
66. Lions Club of Ajmer Eye Hospital, Ajmer, Rajasthan
67. Lions Eye Hospital, Lions Club of Mandawar, Rajasthan
68. Lions Eye Hospital, Krishnanagar, West Bengal
69. Abid Ali Khan Lions Eye Hospital, Hyderabad
70. Lions SightFirst Eye Clinic, Kitwe Central Hospital, Zambia
71. Jhargram Lions Eye Hospital, Midnapore, West Bengal
72. Lions Club of Galsi Welfare Trust, Burdwan, West Bengal
73. Sone Bhadra Dehri Lions Eye Hospital, Tilothu, Bihar
74. Lions Jodhpur West Eye Hospital, Jodhpur, Rajasthan
75. Golcha Organisation, Biratnagar, Nepal
76. Lions SightFirst Eye Clinic, Gwanda, Zimbabwe
77. Haldia Lions Eye Health Care & Research Centre, Durgachak, West Bengal
78. Lions VUNM Eye Hospital, Vatva, Gujarat

79. Lions Eye Hospital, Rewa, Madhya Pradesh
80. Lions Club of Avadi Eye Hospital, Chennai, Tamilnadu
81. Mar Baselios Medical Mission Hospital, Kothamangalam, Kerala

Sight Savers Supported Hospitals

1. Rotary Netra, Vizag, Andhra Pradesh
2. Muzaffarpur Eye Hospital, Muzaffarpur, Bihar
3. Jamshedpur Eye Hospital, Bihar
4. CMRM Rotary Eye Hospital, Giridh, Bihar
5. Shree Jalaram Seva Mandal Trust, Bodeli, Gujarat
6. Nandlal Mulji Bhuta Medical Foundation, Sihor, Gujarat
7. Kutch Vikas Trust, Bhuj, Gujarat
8. Arpana Research & Charities Trust, Karnal, Haryana
9. Vishwa SEVA Samiti, Sirsi, Karnataka
10. Chattisgarh Eye Hospital, Raipur, Madhya Pradesh
11. Bhopal Eye Hospital, Bhopal, Madhya Pradesh
12. Venu Eye Hospital, New Delhi
13. JPM Rotary Eye Hospital, Orissa

14. Gandhi Mission Trust, Daspur, West Bengal
15. Vivekananda Mission Ashram, Haldia, West Bengal
16. Budge Budge Welfare Trust, Kolkatta, West Bengal
17. Sri Sri Bijoykrishna Ashram Relief Society, Purulia, West Bengal
18. Rotary Service Centre, Purulia, West Bengal
19. Community Service Trust, Vuyyuru, Andhra Pradesh
20. PTSJMCC, Petarbar, Bihar
21. Khairabad Eye Hospital, Uttar Pradesh
22. URMUL Jyoti Sansthan Nokha, Bikaner, Rajasthan
23. Mahatma Gandhi Eye Hospital, Mayurbhanj, Orissa
24. Rotary Sansthan Seth Ratanchand Kanhaiyal Ranka Eye Hospital, Jaitaran, Rajasthan
25. Shree Bhairav Netra Yagna Samiti, Pali District, Rajasthan
26. Pali Sewa Mandal Eye Hospital, Pali-Marwar District, Rajasthan
27. Netra Jyoti Hospital (Barmer Jan Seva Samiti Managed), Barmer, Rajasthan
28. Dhamtari Christian Hospital, Chattisgarh
29. Shri Sadguru Seva Sangh Trust, Chitrakoot, Satna

CBM SARO (S) Supported Hospitals

1. CSI Redfern Memorial Hospital, Hassan, Karnataka
2. Malankara Orthodox Syrian Church Medical Mission Eye Hospital, Kariambady, Kerala
3. H.V. Desai Eye Hospital of Poona Blind Men's Association, Pune, Maharashtra
4. Wanless Hospital, Miraj, Maharashtra
5. St. Luke's Eye Care Hospital, Nazareth, Tamilnadu
6. Good Samaritan Eye Hospital, Matrapalli, Tamilnadu

LAICO

7. Kotagiri Medical Fellowship Hospital, Kotagiri, Tamilnadu
8. CSI Kalyani General Hospital, Chennai, Tamilnadu
9. Schieffelin Leprosy Research and Training Centre, Karigiri, Tamilnadu
10. Scudder Memorial Hospital, Ranipet, Tamilnadu
11. Lutheran Eye Hospital, Dharapuram, Tamilnadu
12. Vizhiyagam Eye Hospital, Sivangangai, Tamilnadu
13. Vision Eye Hospital, Hubli, Karnataka
14. Dr. Somervel Memorial CSI Mission, Karakonam, Kerala
15. Institute of Ophthalmology, Josephs Eye Hospital, Trichy, Tamilnadu
16. Medical Brother St. Johns Hospital, Kattappana, Idukki, Kerala
17. Leprosy Relief Rural Centre, Chettipatty, Salem, Tamilnadu
18. CSI Campbell Hospital, Jammalamadugu, Andhra Pradesh
19. ALC Pakayanathan Memorial Eye Hospital, Chengam, Tamilnadu
20. Malankara Orthodox Syrian Church Medical Mission Eye Hospital, Kotenchery

Seva Supported Eye Hospitals

1. Sitapur Eye Hospital, Bahraich, Uttar Pradesh
2. King Mahendra Memorial Eye Hospital, Bharatpur, Nepal
3. Nepal Eye Hospital, Katmandu, Nepal
4. Provincial Hospital, Siem Reap, Cambodia
5. Cambodia National PBL, Cambodia

WHO Supported Hospitals

1. National Institute of Ophthalmology, Dhaka, Bangladesh
2. Cicendo Eye Hospital, Bandung, Indonesia



Ms. Carrie Drummond, Senior Program Coordinator, LCIF, USA with Dr. G. Venkataswamy, Ln. M. Nagarajan, Ln. Rama Ramanathun, Mr. R.D.Thulasiraj and other LAICO staff



Dr. Yu-Ying Shi, Dr. Yuan-Yuan Zheng, Mr. Feng Guang from Beijing Institute of Ophthalmology, and Dr. Ai-Lian Hu from the Department of Medical Administration, China who were here through WHO Fellowship in Community Primary Eye Care and Cataract Administration with Dr. G. Venkataswamy



Participants of the Capacity Building workshop with Dr. G. Venkataswamy, Dr. P. Namperumalsamy, Mr. R.D. Thulasiraj and other LAICO faculty

IEF Supported Hospitals

1. Centre for Sight, Sofia, Bulgaria
2. Lions SightFirst Eye Hospital, Lilongwe, Malawi
3. Multi-clinicas Vicky Guzman, Santa Ana, El Salvador
4. Vizualiza, Guatemala

Other Hospitals

1. Jnana Prabodhini Medical Trust's Smt. Kamala Mehta Hospital, Satara, Maharashtra
2. K.B. Haji Bachooali Charitable Ophthalmic & E.N.T Hospital, Mumbai
3. Seethalakshmi Hospital, Gobichettipalayam, Tamilnadu
4. Indore Eye Hospital, Indore, Madya Pradesh

Workshops and Seminars for Capacity Building

SF 741 Lions Manpower and Management Development Workshop (for WHO supported hospitals)

Jan 17-23

Ten participants representing the following hospitals attended the workshop.

- Cicendo Eye Hospital, Bandung, Indonesia
- National Institute of Ophthalmology, Dhaka, Bangladesh

Apart from these, two ophthalmologists from Visualiza, Guatemala, North America (IEF supported hospital) participated as observers.

Vision 2020 workshop (IAPB supported)

March 4 – 8, 2002

Vision 2020 is a worldwide concerted effort designed to eliminate avoidable blindness by the year 2020. The program will enable all parties and organisations involved in combating blindness to work in a focused and coordinated way to achieve the common goal of eliminating preventable and treatable blindness.

This workshop was conducted in conjunction with one of the IAPB supported two week programmes on Management training for Eye Care Programme Managers at LAICO.

Dr. Allen Foster, Dr. Ravi Thomas and Dr. Shamanna, were here to teach in this workshop. Participants were from the following hospitals:

1. Chattisgarh Eye Hospital, Raipur, Chattisgarh.
2. JPM Rotary Eye Hospital, Cuttack, Orissa
3. Rotary Netra Eye Hospital, Vishaka Dt, Andhra Pradesh
4. R.R. Lions Eye Hospital, Rajeev Nagar, Andhra Pradesh
5. Reddy Lions Eye Hospital, Secunderabad, Andhra Pradesh



Dr. Sivakumar, Ln. Rama Ramanathun, Ln. M. Nagarajan and Ln. Dr. P. Piramanayagam, Vice District Governor at the release of the booklet on eye care



Dr. Negazul Hague, Mr. Daga, Secretary of Netra Jyoti Seva Mandiram, Bihar, Dr. Sadhvi Chetana, Administrator of Netra Jyoti Seva Mandiram, Bihar, Mrs. Daga and Dr. Sadhvi Sampragyan with Dr. G. Venkataswamy



Mr. Vijayakumar, Project co-ordinator explaining the CBR project to the participants of the Management Training and Systems Development programme during their visit to Aravind-Theni

6. Government Ophthalmic Hospital, Chennai, Tamil Nadu
7. Directorate of Health and Family Welfare services, Bangalore, Karnataka
8. Directorate of Health Services, Government of Orissa, Bhubaneswar
9. Sankara Nethralaya, Chennai, Tamilnadu

Workshop on Qualitative Research

August 6-9

Mr. Daniel Perlman, School of Public Health, University of California, Berkley organised this workshop for LAICO and Aravind staff to help in writing case on Aravind Eye Hospital and discuss some of the good case study themes that will be useful in teaching.

Seminar on SightFirst

September 22

This seminar was organised for members of Lions Clubs International District 324-B3. Ln. Rama Ramanathun, District Governor chaired the seminar. Ln. PID Prof. M. Nagarajan and Dr. G.Venkataswamy, Chairman of Aravind Eye Care System delivered the keynote address. The seminar on SightFirst was conducted to develop basic understanding of the eye care and community outreach programmes, that will help efficiently and effectively lead the SightFirst programme in the district. Ln. PDG N.A.K. Gopalakrishna Raja, Grant Administrator of LAICO discussed the SightFirst Projects at LAICO. Ln. Dr. P. Piramanayagam, Vice District Governor released the booklet on Eye Care. Dr. P. Namperumalsamy, the Director of Aravind Eye Care System led the Scientific Session and clarified the doubts, related to eye care, raised by the participants. About 200 members of the Lions District 324-B3 attended the seminar.

SF 741 Lions Manpower and Management Development Workshop

November 27 - December 3

There were seven participants from Kilimanjaro Christian Medical Centre Hospital, Tanzania.

1. Prof. John Shao, Vice Chancellor
2. Dr. Susan Lewallen, Co-Director
3. Dr. Anthony B.Hall, Head of the Department, Ophthalmology
4. Mrs. Victoria Isheke, Administrative Officer
5. Mrs. Fidea Mussa, OPT in-charge
6. Mrs. Evangeline Kweka, Ward in-charge
7. Mr. Joseph Banzi, Community Co-ordinator



Graduating students of Postgraduate Diploma in Hospital Management with Faculty

Management Courses

LAICO in affiliation with Madurai Kamaraj University offers:

- Postgraduate Diploma in Hospital Management
- Postgraduate Diploma in Health Management

Community Outreach and Social Marketing of Eye Care Services Courses

Because of the diversity, the participants were able to learn from each other, by sharing their experiences and organisational models. During these four weeks, participants were given exposure to the Aravind model, scientific approach in conducting camps through various field visits, lectures and group activities. They also learned about counselling, primary eye care, magnitude of blindness and social marketing of eye care services.

Tenth Course

Dec 15, 2001- Jan 12, 2002

A total of 22 participants from three countries - India (16) (Tamilnadu - 3, Andhra Pradesh-2, Maharastra-3, Madhya Pradesh-2, Rajasthan-4, West Bengal-1, Gujarat-1), Bangladesh (5) & Nepal (1) participated.

Eleventh Course

June 15 - July 15

A total of 16 participants from two countries - India (15) (Tamilnadu - 2, Andhra Pradesh-1, Madhya Pradesh-5, Rajasthan-4, West Bengal-1, Uttar Pradesh-1, Orissa-1), Nepal (1) participated.



Participants of the Tenth Certificate Course on Community Outreach with Dr.G.Venkatswamy, Dr. G. Natchiar, Mr. R.D.Thulasiraj and other faculty

Course on Instrument Maintenance

The course trains participants in maintenance of common clinical and surgical ophthalmic equipments. Participants acquire technical know-how through intensive hands-on learning experience. This course is offered four times a year. During the year 2002 four instruments maintenance courses were conducted, training 22 technicians including two from overseas.

Instruments Maintenance Camps in 2002

1. CSI Kalyani Hospital
2. Sankara Eye Society, Coimbatore
3. Arasan Eye Hospital, Erode
4. Joseph's Eye Hospital, Trichy

Management Priorities in Eye Care Delivery (IAPB Supported)

February 10-16

Ms. Debra Mipos, Kaiser Permanente - The Permanente Federation, California,
 Ms. Neelam Sekhri Feachem, Healthcare Redesign International, California,
 Dr. G.N.Rao, L.V.Prasad Eye Institute, Hyderabad,
 Mrs. Nirmala Moorthy, Foundation for Research in Health Systems (FRHS), Bangalore,
 Mr. G. Balasubramaniam, Institute for Financial Management and Research (IFMR) Chennai, India, and
 Mr. D.Nagarajan, Consultant, Aravind Eye Hospital & L.V.Prasad Eye Institute, Hyderabad were all here to teach in this one week course.

Twenty seven participants from the following eye hospitals attended the workshop.

1. R.K. Devi Eye Research Institute, Uttar Pradesh

2. Nepal Eye Hospital, Nepal
3. Chonburi Hospital, Thailand
4. Shri Sadguru Seva Sangh Trust, Madhya Pradesh
5. Provincial Hospital, Limbe, Cameroon
6. R.R Lions Eye Hospital, Andhra Pradesh
7. Srikiran Institute of Ophthalmology, Andhra Pradesh
8. GRSM Rotary Eye Hospital, West Bengal
9. Dhaka Medical College, Bangladesh
10. Sankar Foundation Eye Hospital, Andhra Pradesh
11. Sankara Eye Hospital, Chennai
12. Coimbatore Medical College Hospital, Coimbatore
13. Arasan Eye Hospital, Erode
14. Ramathibodi Hospital, Thailand
15. Sankara Eye Hospital, Coimbatore
16. Christian Medical College, Vellore
17. JPM Rotary Eye Hospital, Orissa
18. Dr. Rumiang Tobing, Indonesia
19. Regional Institute of Ophthalmology & Government Ophthalmic Hospital
20. Dr. Shroff's Charity Eye Hospital, New Delhi
21. Sankar Foundation Eye Hospital, Andhra Pradesh
22. Pali Sewa Mandal, Rajasthan
23. Cicendo Eye Hospital, Indonesia
24. Akot Rotary Charitable Eye Hospital, Maharashtra
25. E-Ent Hospital, Myanmar
26. Disha Eye Hospitals and Research Centre, West Bengal
27. State Institute of Ophthalmology, Uttar Pradesh



Ms. C. Selvalakshmi, Chief Instructor of the Instrument Maintenance Course training Sunaryo and Samuel Kasa Bone from Indonesia and Ms. Thenmalar, Bio-medical Engineer Trainee, Aravind-Madurai



Mr. Keerti Bhusan Pradhan and Dr. Paul Courtright reviewing the content of the IAPB-Programme Managers Training programme

Management Training for Eye Care Programme Managers (IAPB supported)

March 4-15

Dr. Suzanne Gilbert, Seva Foundation, USA, Dr. Brian Robie, CDC, Atlanta, USA, Mr. Ram Prasad Kandel, Mr. K. Sheshadri, Mr. D. Nagarajan, Dr. B.R. Shamanna, Dr. Nirmla Murthy were all here to teach in this one week course. Dr. Paul Courtright, Director of Kilimanjaro Centre for Community Ophthalmology and Dr. Susan Lewallen, were here to review the IAPB – Programme Managers training program, its course content and methodology.

Nineteen participants from the following eye care centres attended the workshop.

1. B.P Koirala Lions Centre for Ophthalmic Studies, T.U Institute of Medicine, Kathmandu, Nepal
2. Royal Govt.of Bhutan Regional Referral Hospital, Mongar, East Bhutan
3. Ministry of Health Dept. of Public Health, Male, Maldives
4. West Java Provincial Health Office, West Java, Indonesia
5. Cicendo Eye Hospital, Bandung, Indonesia
6. ORBIS International, Dhaka, Bangladesh
7. Eye Care Himalaya, Kathmandu, Nepal

8. Orbis International, New Delhi
9. Training & Research for Action (TARA), Visakapatnam, Andhra Pradesh
10. Comprehensive Health Care Services, Nabarangpur, Orissa
11. ICEE (International Centre for Eye Care Education), NSW, Australia
12. Bangladesh Jatiya Andhakalyan Samiti, Comilla, Bangladesh
13. BNSB MEC Eye Hospital Sirajgunj, Sirajgunj, Bangladesh
14. Vietnam National Institute of Ophthalmology, Hanoi, Vietnam
15. Sight Savers International, Mumbai, Maharastra
16. Dr. Shroffs Charity Eye Hospital, Daryaganj, Delhi

Management Training and Systems Development for Hospital Administrators (IAPB supported)

March 1-30

Nominated by WHO under IAPB Task Force, CBM of Germany, CBM Saro (North), Operation Eye-sight Universal, Orbis International, & Seva Foundation, ten participants from the following hospitals attended the training programme.

1. Presbyterian Eye Services, Cameroon
2. Jiwan Jyoti Christian Hospital, Uttar Pradesh
3. Lusaka Adventist Eye Hospital, Zambia
4. Kasturba Hospital, Baharaich, Gujarat
5. Shri Sadguru Seva Sangh Trust, Chitrakoot, Madhya Pradesh
6. Arasan Eye Hospital, Erode, Tamil Nadu
7. Antyodaya Chetana Mandal, Orissa
8. Cicendo Eye Hospital, Bandung, Indonesia
9. BP Koirala Center for Ophthalmic Studies, Kathmandu, Nepal

Management Training and Systems Development for Hospital Administrators (IAPB supported)

November 1-30

As part of the IAPB Task Force Management Training Programmes, this sixth course was successfully organised in November 2002. Thirteen participants from the following institutions participated:

1. Kilimanjaro Christian Medical Centre, Tanzania
2. Lions SightFirst Eye Hospital, Nairobi
3. Amana Hospital - Temeke Eye Center, Dar Es Salaam, Tanzania
4. (SCD) Eye Hospital, Titilagarh, Orissa
5. (SHIS) Eye Hospital & Research Centre, Bhangar, West Bengal
6. Dhamtari Christian Hospital, Dhamtari, Chattisgarh
7. Lepra India, Bolangir, Orissa
8. SB Dr. Sohan Singh Eye Hospital, Katra Sher Singh, Amristar, Punjab
9. KBHB Charitable Ophthalmic & E.N.T Hospital, Mumbai
10. Vision Eye Hospital, Hubli Sheth M.L. Vaduwala (Sarvajani) Eye Hospital, Baroda

Training Programme in Repair & Maintenance of Bio-Medical Instruments

(Organised by the Madras Regional Centre of the Central Scientific Instruments Organisation (CSIO), Chandigarh, and sponsored by the Instruments Development Wing of the Department of Science & Technology (DST), Government of India, New Delhi.)

LAICO, December 16-27

Mr. S. Sivagaminathan, Deputy Director, CSIO conducted the program. About 30 doctors, engineers and technicians from the Government Hospitals were benefitted.

Prof.V.Srinivasan, Mr. S. Poornachandran, Mr. K.Sekar, Mr.V.Sridharan, Ms. R.Banu Rega and Ms. A.S.Meenachi of the Instruments Maintenance Laboratory, Aravind-Madurai gave lectures and demonstrations on instrument maintenance for the participants.

Educators Presbyopia Education Programme

LAICO, Dec 12 - 13

The Educators Presbyopia Education Programme was arranged for the educators and students of the Department of Optometry. Mr. Craig Butler, Mr. Chuan Seng Ooi and Mr. David Wilson, from the International Centre for Eye Care Education (ICEE), Sydney, Australia and Mr. Vallam S. Rao, India Coordinator for ICEE, from LV Prasad Eye Institute, Hyderabad conducted this programme at Aravind-Madurai. Around 33 participants, which included the optical sales persons, refractionists and optical technicians from Aravind-Madurai, Coimbatore, Tirunelveli and Theni, participated in the programme. Practical sessions (workshops) arranged during the program were helpful in identifying the common errors made and to rectify them. The Essilor India Ltd sponsored this program. Mr. Chuan Ooi and Mr. Wilson gave a talk on optical dispensing to the PG Residents. The team



Mr. Craig Butler during the Educators Presbyopia Education Programme

appreciated the efforts that were made and expressed their interest in conducting similar programmes in future at Aravind.

Meetings, Conferences & Workshops Attended

Meeting on Prevention of Corneal Ulceration

Dr. M. Srinivasan, leading principal investigator of the corneal ulceration project attended the meeting on 'Prevention of Corneal Ulceration' from Jan 10-12 and Jan 23-26 respectively in Myanmar and Bhutan.

Seminar on Managing Quality

ANJA Autonomous College, SFR College for Women, Sivakasi, Feb 6
Mr. A.K. Sivakumar was invited as lead faculty for a seminar on Managing Quality for the final year students of ANJA Autonomous College and SFR College for Women at Sivakasi.

Fifteenth Workshop on Hospital and Health Services Management

Christian Medical Association of India, Bangalore, Feb 9

MR. A.K. SIVAKUMAR

- *Quality Management*

- *Materials Management in Hospitals*

IAPB Executive Committee Meeting

South Africa, February 18-26

Over 30 African countries attended the IAPB meeting of the African region. Mr. R.D. Thulasiraj as Regional Chairman of the International Agency for the Prevention of Blindness, South East Asia Region (IAPB- SEAR)



Dr. M. Srinivasan with Ophthalmic assistants of JDWNR Hospital, Bhutan

participated in the meeting and made presentations on cost recovery, infrastructure and technology.

National Blindness Survey Meeting

Delhi, March 15-16

Dr. Praveen Nirmalan, Research Medical Officer, LAICO attended the meeting and discussed the preliminary results of the national survey on blindness 2001.

Tibet Eye Care Plan Meeting

March 18-20

Dr. Praveen Nirmalan and Mr. R.D. Thulasiraj met with the delegation from Tibet to review and access the development master plan for eye care in Tibet autonomous region. This meeting was co-ordinated and supported by Seva Foundation. Seva staff actively participated in the meeting.

WHO Development of A Cataract Management Training Course - A Vision 2020 Workshop

WHO, Geneva, May 7-10

Dr. G. Natchiar attended the workshop on invitation as a WHO temporary adviser.



Dr. P. Namperumalsamy at the Quality and Competitiveness Conference, Bangalore

Quality and Competitiveness: We can make it happen

First Anniversary of The Confederation of Indian Industry (CII) Institute of Quality

Bangalore, May 9

Dr. P. Namperumalsamy spoke about genesis of Aravind and its activities.

Global Planning Meeting on Childhood Blindness

(Organised by WHO)

Geneva, June 18-20

Dr. P. Vijayalakshmi participated and co-chaired one of the sessions.



Dr. P. Vijayalakshmi at the Global Planning meeting, Geneva

Working Group for the Development of a Framework and Indicators for Monitoring Vision 2020 - The Right to Sight

(Organized by WHO)

Geneva, Switzerland, June 22-28

This meeting was organised to develop global, regional and national indicators for monitoring the progress of key activities under Vision 2020 programme. The selected group of participants representing various regions of WHO and other professionals attended this meeting. Mr. R.D. Thulasiraj was elected as chair person for the workshop.

Joint Meeting of IAPB Executive Committee/Task Force/Vision 2020 supporting members

Prague, Czech Republic, June 30-July 4

Mr. R.D. Thulasiraj, Executive Director, LAICO, attended the meeting as the Regional Chairman of the International Agency for the Prevention of Blindness, SouthEast Asia Region (IAPB- SEAR)

The 7th International Conference on Low Vision

Goteborg, Sweden, July 21-25

This conference is held once in every three years. Mr. R.D. Thulasiraj attended as a faculty for the grief-counselling workshop on Low vision services in developing countries. It also provided opportunity to network with all the agencies involved in this activity.

Symposium on Childhood Blindness Prevention

(Organised by ORBIS International)

Taiyaun, China, July 3-August 5

DR. P. VIJAYALAKSHMI

- *Childhood blindness and control measures in India*
- *Eye care for children in India screening process – Aravind’s experience*
- *Setting up the paediatric ophthalmology unit - Aravind’s experience*

LRSP (Long Range Strategic Plan) Meeting

Orbis International, Mumbai, August 15-17

Orbis, India office requested Aravind to assist them in the development of long-range strategic plan in the country. As part of this process they requested to prepare a background document on the status of eye care in India and range of opportunities for Orbis, India.

Dr. Praveen Nirmalan and Mr. Keerti Pradhan, LAICO and Dr. Shammanna, LV Prasad Eye Institute presented this document both to the staff of Orbis and to the large group of participants at the workshop. Mr. R.D. Thulasiraj also attended the meeting, and presented Aravind Model and the lessons learnt. He also moderated some of the sessions and lead a group work on community participation.



Dr. P. Namperumalsamy at the Connect 2002 conference, Chennai

Connect 2002

(Organised by Confederation of Indian Industry)

Chennai, September 19-22

This is a second international exhibition and conference on IT, Communication Technologies and Bioinformatics.

DR. P. NAMPERUMALSAMY

Session on Tamilnadu Tomorrow

- Information technology in health care

Meeting of working group on Vision 2020 Right to Sight in India

Lucknow, October 24-26

DR. USHA KIM

- *Strategies for production of middle and primary level workers*

Seva Board Meeting

San Francisco, November 6-9

Dr. G. Natchiar attended the meeting.

National Workshop on Childhood Blindness

Orbis-Chennai, November 14

MR. R. D. THULASIRAJ

- *Reducing Childhood Blindness Initiatives in SEAR*

Planning Workshop for the VISION 2020 Training centres

London, December 10-12

Mr. R.D. Thulasiraj presented a report on VISION 2020 workshop which was held at LAICO on March 4-8.

Workshop on Research Methodology

PSG Institute of Medical Sciences and Research, Coimbatore, December 12-14

Dr. Praveen Nirmalan, Mr. Muralikrishnan and Dr. R. Venkatesh participated in the workshop.

National Conference on Communication Technologies

Vellore Institute of Technology (Deemed University), Vellore, December 12-14

MRS. S.SHREE VIDHYA

- *Maintenance of Bio-medical Instruments - a fertile field for Engineering Graduates. (co-authors M.Thenmalar, Prof.V.Srinivasan)*

Regional Lions Conference

(organised by Lions Club)

Sankarankovil, Dec 15

DR. R. RAMAKRISHNAN

- *Eye Donation*

Project Students

Mr. Adam Cohen, Mr. Neilesh Soman, Ms. Shawna Mehta and Ms. Aparanji Mirtipati from University of Michigan Business school were at Aravind to do a project on 'Knowledge management and innovation - aligning the institution and enabling the institution builders'

Mr. Abhishek Banka, Mr. Anand Narayan and Mr. Alejandro Carbon



Mr. Anand Narayan, Mr. Abhishek Banka and Mr. Alejandro Carbon from U of M Business School and Ms. Sasipriya with Ms. Suganya at her internet kiosk in Ulgapitchanpatti



Mr. Adam Cohen, Mr. Neilesh Soman and Ms. Shawna Mehta of University of Michigan with Dr. Usha Kim

also from University of Michigan Business School International Multidisciplinary Action Programme worked on Aravind Tele-ophthalmology Project for a period of four weeks to develop a framework for organisational structure, protocols, network architecture, cost-benefit analysis, implementation and to prioritise telemedicine applications.

Aravind Centre for Women, Children and Community Health (ACWCCH)

The major focus of the centre is preventive health care. Apart from primary health care for children and women in the hospital, the centre works closely with the community through camps, and by forming community service groups.



STATISTICS—2002

Out-patient visits	13,428
Children below 5 years	1,020
Adult cases seen	710

Immunisation

DPT	407
OPV	523
AMV & MMR	114

Vitamin A Deficiency cases seen

XN & X ₁ b	1
Corneal xerosis	6
Keratomalacia	10

Health Education Project

This two year project is aimed to improve health and nutrition of mother and children in Kariyapatty block. As part of this project, nineteen field workers were trained to screen disabilities in newborns. Many health education programmes were organised to create awareness among the public at all levels, on the importance of nutrition. The final evaluation of this project would be carried out in June 2003.

Health Economics - Burden of ill health and Nutrition

In collaboration with Gandhigram Institute of rural health and family welfare trust, a pilot survey was designed by the Aravind Centre for Women, Children and Community Health, to assess the 'burden of ill health and nutrition'. With the studies in the field, it was demonstrated from their own environment how ill health affects their family life and earning capacity. This was done under the leadership of Dr. Lakshmi Rahamathullah, Dr. Praveen Nirmalan and Dr. Vijaya Srinivasan of Gandhigram. Mr. Nagaraj of Gandhigram and Ms. Sheela Devi of LAICO were responsible for the field work in Kariyapatty and the data management. Information in health economics has made an impact on the male community and today nutrition is being seriously advocated as a family need by the male members.



Administration of polio drops at the Aravind Centre for Women, Children and Community Health

Primary Health Care Project

The aim of this project is to improve health of the community and evaluate its impact on quality of life. Two models are adopted to achieve this purpose.

1. In the first model, people plan on all developmental activities that will have an impact on their health and quality of life. This will be implemented with support from Government functionaries and block development council members.
2. The primary health centre doctor is accountable for health and he seeks the co-operation of all other departments that impact on health of the community. Dr. Lakshmi Rahamathullah, Dr. Praveen Nirmalan and Ms. Sheela Devi contribute in this model.

Paediatric Eye Survey

The main aim of the survey is to estimate the prevalence of eye problems among children below 15 years in a population of 85,000 and to assess the sensitivity and specificity on the diagnosis made by the village girls who are taught to examine the eyes to detect eye problems. This is done in collaboration with Dr. Vijayalakshmi, Paediatric Ophthalmologist and Dr. Praveen Nirmalan, Ms. Sheela Devi and Mr. Balamurugan, LAICO.

Training programmes

- In collaboration with the Gandhigram Institute of Rural Health and Family Welfare Trust, 192 health inspectors were trained on nutrition and micro nutrient deficiency from Tamilnadu and other parts of India.
- Three education programmes on Vitamin A deficiency were conducted for World Vision and Helen Keller International staff.
- 14 Public Health nurses from southern districts were given training on mortality audit of infants and maternal deaths.
- All project staff attended the training programme organised by Tamilnadu government on “Adolescent Health”



Health education programme in Kariapatty block



Dr. Lakshmi Rahamathullah and Dr. Suzanne Gilbert at the Block Development Council meeting in Kariyapatty



Health Education Project: Mrs. Chandra and Dr. Veronica Peterson with a field worker interviewing a young mother in Kariyapatty



Ms. Nicole Spencer, Seva volunteer from Canada in Kariyapatty doing a research survey analyzing the nutritional status of people in villages

Aravind Medical Research Foundation

Access to the world's largest number of eye patients, state-of-the-art diagnostic and treatment facilities, sophisticated data management systems and extensive community participation make Aravind ideal for clinical research, population based studies, social and health systems research.



Dr. S.R. Rathinam with Dr. Ben Adler, Director, Leptospirosis lab, Monarch University, Australia

Recognition for Ph.D Programme

In 2002, Madurai Kamaraj University recognised Aravind Medical Research Foundation for Ph. D programme in Biomedical Sciences. Three faculty members are recognized as supervisors and five students have registered for Ph. D.

Aetiology and pathogenic mechanism of leptospiral uveitis

Investigators :

(India) Dr. VR. Muthukkaruppan

Dr. SR. Rathinam

(Netherlands) Dr. Rudy Hartskeerl,

Leptospirosis Reference Centre,

Royal Tropical Institute, Netherlands

Prof. J.S. Stilma (M.D)

Department of Ophthalmology, University

Medical Centre, Utrecht

Funded by: WOTRO, The Netherlands

Duration: 2001 - 2002

Laboratory studies have been carried out to determine the aetiology of a certain form of uveitis, associated with the past leptospiral infection. On the basis of immunological and PCR analysis, we now confirm the leptospiral aetiology of uveitis. This finding has been submitted for publication in Journal of Medical Microbiology.

The LPS antigen has been identified and purified from *Leptospira biflexa serovar patoc*, which could be used for diagnosis in ELISA.

Presently the investigations are underway to understand the pathogenic mechanism of leptospiral-uveitis. This is to answer more specifically the question on how the past systemic infection results in ocular inflammation after several months.

Human Corneal Epithelial Stem Cells

Investigators: Dr. VR. Muthukkaruppan

Dr. N.V. Prajna

Dr. M. Srinivasan

Duration: 2002 - 2005

Objective: To generate and characterize the corneal epithelial stem cells in culture.

The method of culturing cadaver (International Eye Bank) limbal tissue has been established to generate a healthy sheet of multi-layered epithelium with numerous stem cells. The presence of stem cells, positive for p63 nuclear marker is evident by our studies using confocal microscopy (Fig.1 & Fig 2) (This finding was selected for best paper award in the Indian Eye Research Group Conference held at L.V.Prasad Eye Institute, Hyderabad). Such in vitro generated corneal epithelium is being used for grafting on to patients who

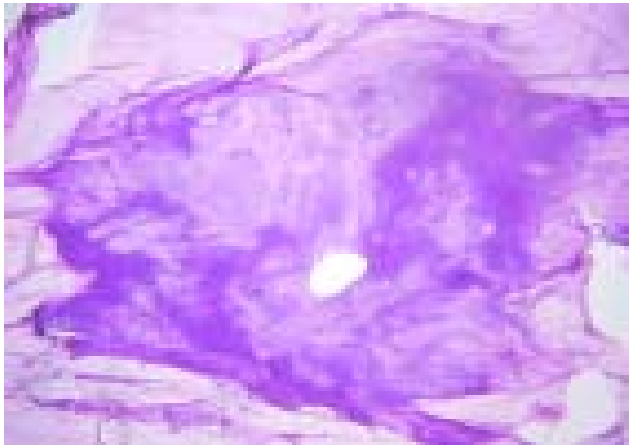


Fig.1: 21 day culture of limbal region on denuded human amniotic membrane showing a thick epithelial sheet of 20mm diameter

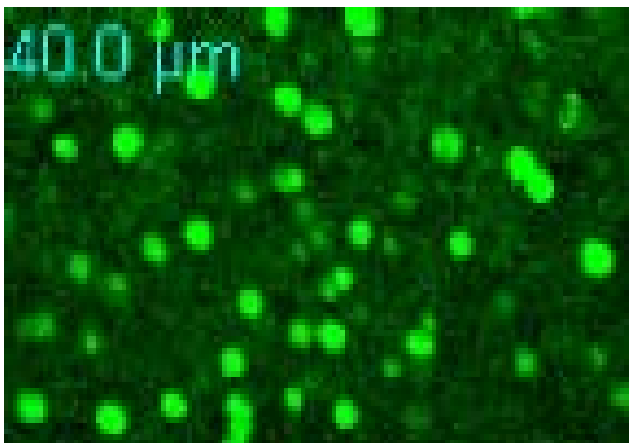


Fig.2: A confocal [Carl Zeiss] image of the mid layer of a 21 day culture showing the presence of p63 positive corneal epithelial stem cells



Dr.VR.Muthukaruppan, Director, Research and Immunology, Dr.P.Sundaresan, Genetician and Dr.Reena Chandrasekar, Senior Scientist

have several ocular disorders for eg., Stevens Johnson Syndrome. We are presently engaged in developing a comprehensive protocol to generate limbal stem cells in vitro and to maintain them as a stem cell line retaining the potential to differentiate into a functional epithelium. Such a stem cell line would have significant clinical application. The studies on Molecular Biology of stem cells are underway.

Molecular Genetics of Hereditary Glaucoma

Investigators: Dr. S.R. Krishnadas
Dr. P. Sundaresan

Collaborators: University of IOWA, USA
Aravind Eye Hospital, Madurai

Duration: 2001 – 2005

Objective: To identify the Candidate Genes for Congenital Glaucoma in Indian Population.

Blood samples from 88 congenital glaucoma patients and their family members have been collected and DNA extracted. The studies are in progress to identify the candidate genes for congenital glaucoma.

Studies on the Genetics of Inherited Aniridia in Indian Population

Investigators: Dr. P. Sundaresan
Dr. P. Vijayalakshmi
Dr. S.R. Krishnadas

Funded by: Indian Council of Medical Research

Duration: 2002 – 2005

Objective: To screen for mutations in PAX6 gene of autosomal dominant isolated aniridia patients.

Aniridia, an autosomal dominant ocular disorder characterized by iris hypoplasia, results from mutations in the PAX6 gene. PAX6 gene has 13 exons and 12 introns in human chromosome number 11p13. The aim of our research project is to identify PAX6 gene mutations and the phenotype/ genotype correlations of aniridia in Indian population. A total of 40 isolated aniridia patients were investigated with their family members and all the clinical information were collected. Genomic DNA was isolated from patients and their family members for PCR analysis. Thirteen primers were used to detect mutations

PAX6 gene mutation in an aniridia patient was cloned in E. coli. Mutation was confirmed by DNA sequencing

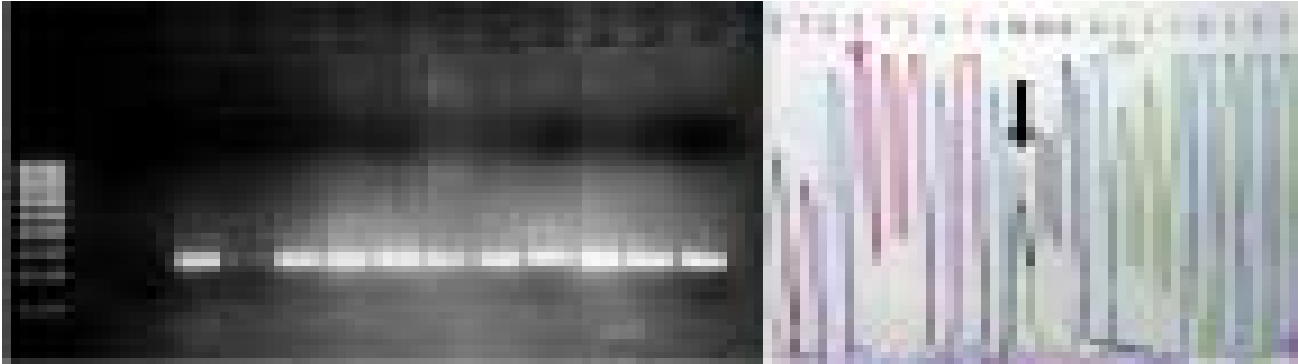


Fig 3: PCR amplification and sequencing - Guanine (G) replaced by Adenine (A)



Fig 4: E. coli. cells carrying mutant PAX6 gene (white colonies)

in the PAX6 gene. Single strand conformational polymorphism (SSCP) technique has been optimized to detect the mutations in the PCR product. Among the 40 individuals with aniridia, a mutation (Arg240STOP) has been identified and confirmed by DNA sequencing (Fig.3 & Fig 4). Mutations in PAX6 gene have been identified from various ethnic groups but this is the first report of aniridia mutation from Indian population.

Molecular Genetics of Juvenile Onset Primary Open Angle Glaucoma

Investigators: Dr. P. Sundaresan
Dr. S.R. Krishnadas
Duration: 2001 – 2005

Objective: To screen families for JOAG mutations to identify individuals at high risk for this form of glaucoma before significant vision loss.

Glaucoma is a major cause of blindness in the world. The most common form of glaucoma is Primary Open Angle Glaucoma (POAG) with onset of over 40 years of age. POAG is inherited in an autosomal dominant mode and associated with elevated intraocular pressure. Juvenile Open Angle Glaucoma (JOAG) is less common, while early onset form of POAG linked to chromosome 1q21-q31. Seventy individuals were screened for mutations in the gene (TIGR/MYOC) responsible for the disease. Among them 32 patients clinically identified as JOAG and 38 patients as Adult onset POAG and 25 controls (proband family members). All the three exons were analyzed using 11 primers. One known mutation (Tyr347Tyr) was identified in one family and one novel mutation in another family in exon 3C. This novel mutation (Ala363Val) in exon 3C may also be responsible for JOAG.

Genetics and structural analysis of Myocilin protein involved in Juvenile Onset Primary Open Angle Glaucoma

Investigators: Dr. P. Sundaresan
Dr. S. Krishnaswamy
Dr. S.R. Krishnadas
Collaborators: Madurai Kamaraj University, Madurai
Duration: 2001 – 2005

Objective: To determine the presence of myocilin and to measure its level in aqueous humor.

Aqueous Humor (AH) was analysed for the presence of myocilin in glaucomatous patients (15) and in cataract controls (13). The protein profile was analysed by using SDS-PAGE. Myocilin was found to be present in AH of 13 glaucomatous patients (87%) with apparent molecular size of 140 or 160 KDa, which was not seen in any of the cataract patients. These protein bands were evenly visible at all ages in POAG patients. It appears that the level of myocilin is elevated in the AH of POAG patients and that it may exist in complex form or in aggregation with some other protein. This finding will determine the types of mutations in GLCIA locus and the changes in structure – function relationship of myocilin protein.

Immunology of Fungal Keratitis

Investigators: Dr. VR. Muthukkaruppan
Dr. N.V. Prajna

Funded by: Allergan

Duration: 2002 – 2005

Objective: To understand the immunological and inflammatory reactions in the development of fungal keratitis.

This is a new project initiated in November 2002. Fungal keratitis is predominantly a disease of developing countries, as much as thirty times more in India than in the West. Among corneal ulceration, fungal infection is more common and majority of fungal isolates from the cornea are of Fusarium and Aspergillus. Fungal keratitis is frequently refractive to most of the currently available antifungal therapy, thus resulting in corneal perforation and loss of vision. This is mainly due to the absence of appropriate therapy for the prevention or suppression of tissue damage in the cornea. We have information on the Epidemiology, diagnostic methods and risk factors on fungal keratitis. However the nature of inflammatory response and infiltrating cells associated with fungal infection, and the role cytokines in pathogenesis and tissue damage are not known. As a result of infection in the cornea, inflammatory response occurs followed by tissue damage. This is possibly due to the pro-inflammatory cytokines, which are required for the clearance of the pathogen. We propose to identify the pro-inflammatory cytokines in the fungus-infected corneal tissues and in

aqueous humor from fungal (Fusarium) keratitis patients. Sandwich ELISA, flowcytometry, immunocytochemistry and tissue culture techniques will be used to detect the nature of infiltrating cells and to quantify the cytokines.

Molecular Keys To Age-Related Cataract: Differential Gene Expression

Principal Investigators:

Dr. Reena Chandrashekhar

Co-investigator:

Dr. VR. Muthukkaruppan

Dr. N.V. Prajna

Duration: 2003 – 2005

Objective: To identify the expression of genes that are altered in age-related cataractous lens epithelium relative to normal lens epithelium.

The project aims to identify the differential expression of genes in anterior lens epithelium in normal and age-related cataractous lens. Similarly, the profile of gene expression of the newly differentiated lens in vitro, from the normal and cataractous epithelial cells will be identified. This study is based upon our hypothesis that age – related cataract is associated with changes in the expression levels of specific transcripts. It will also improve our understanding on the protective and regulatory processes in relation to the maintenance of lens transparency.

Population Based Surveillance For Congenital Rubella Syndrome (CRS) In South India

Principal Investigator:

Dr. P. Vijayalakshmi

Collaborator: Dr. David Brown,

Director, Enteric and Respiratory Virus laboratory PHLS Central Public Health Laboratory, London

Funded by: World Health Organisation (WHO)

Duration: Two more years for the cohort study

Objectives:

1. To establish the burden of CRS by conducting population – based surveillance for CRS related eye diseases in children 0 – 11 months of age.

2. To find out how long these infants harbour the virus in their body fluids.
3. To assess new diagnostic methods for confirming CRS in children upto 59 months of age.

Totally 220 cases have been screened during 2002. Among them 76 patients were confirmed as CRS cases clinically, and 21 patients were additionally confirmed by laboratory investigation. The samples, obtained from these patients serum, saliva, urine, throat swab, and lens aspirate (whenever applicable) will be subjected to further analysis using PCR and viral culture methods. The children confirmed to be CRS both clinically and at the lab are being followed for 2 more years collecting all the above said samples every 6 months. Totally 488 children are screened. The samples obtained are stored at -80°C for further analysis.

Diabetic Retinopathy Management in the Community: A Pilot Project

Funded by: Lions Clubs International Foundation
Project area: Aravind Eye Hospitals, Madurai, Theni and Coimbatore
Duration: 2000-2004
Objective: To prevent and reduce blindness resulting from Diabetes mellitus by creating awareness in the community, organising screening camps and developing a service delivery model for diabetic retinopathy patients.

Intervention Programme: Awareness Creation

During the year 2002, three seminars and workshops were conducted for the primary health centres and corporation medical officers, ophthalmologists and for the general medical practitioners in the project districts. 20 health education training was conducted for the primary health centres staff, corporation health staff; health related sectors staff like ICDS, TINP and also for NGO's staff. Over twenty five guest lectures on diabetes and diabetic retinopathy have been conducted during the year. The participants were Lions club members, bank staffs, college professors, industrial workers, school

teachers, telecommunication staff, self-help group, NSS students, Rotarians and community.

Community Outreach

Forty six diabetic retinopathy screening camps were conducted during this period. 3,343 diabetics were identified out of 11,644 persons screened. Of this number 533 were diabetic retinopathy patients.

Training

Thirty five ophthalmologists from all over the country received training in laser photocoagulation to manage diabetic retinopathy in the community. A one-day comprehensive training was also given to medical practitioners to diagnose and manage diabetic retinopathy.

Additional study

Serological Survey Of Rubella Antibodies In Female Health Workers At Aravind Eye Hospitals Between 18 – 40 Years Of Age

Investigators: Dr. P.Vijayalakshmi
Dr. Lalitha
Dr. VR. Muthukkaruppan

Totally 1000 female health workers (Madurai, Coimbatore, Tirunelveli) volunteered to be included in this study. Among them 128 exhibited no immunity to the virus on the basis of the absence of IgG antibodies to Rubella antigen. For their benefit they were vaccinated against Rubella infection. Further studies are underway to follow the immune response after vaccination.

Childhood Cataract Outcome Study

Principal Investigator:
Dr. P. Vijayalakshmi
Co-investigator:
Dr. Micheal Eckstein, International Center for Eye Health, London
Duration: Follow up study for 10 years
This is a randomized clinical trial of Lensectomy versus lens aspiration and primary capsulotomy for children with bilateral cataract in South India. Ninth year follow-up is underway.

Aurolab

Aurolab, the manufacturing division of Aravind Eye Care System, has made significant progress during its ten years of operation. It was started in 1992 as a non-profit charitable trust, with the mission of supplying high quality ophthalmic products at prices affordable to common man in the developing countries.



The key to Aurolab's success lies in the fact that it is able to manufacture well established high technology medical products in a highly productive environment at an affordable cost. The various divisions of Aurolab focused on expanding the already existing considerable product range and identifying new opportunities for growth. In order to address the non-availability of affordable aids for the large number of hearing impaired population in developing countries, Aurolab started a production facility for the manufacture of high quality hearing aids.



Intraocular Lens Division

Intraocular Lens Division

In 2002, Aurolab introduced hydrophilic foldable lenses, which are manufactured from clinical grade UV absorbing poly-hydroxy ethyl methyl acrylate (poly HEMA). The optical portion is designed for folding prior to insertion, allowing the lens to be inserted through a 3.4mm to 3.8mm incision. Lenses are available in powers (in situ) from +10.0 to +30.0 diopters in 0.5 diopter increments. Aurolab also introduced newly designed injector for this hydrophilic foldable IOL.

A modified machining technique was developed to produce Negative Power Lenses with powers ranging from -14 to -1 diopters to meet the specific needs of the surgeons.

Aurolab has also been working to develop Heparin coated IOLs to increase the biocompatibility and a viable coating method is now being perfected. The PMMA IOL with heparin surface modification decreases both the postoperative reaction and cell adhesion to the lens surface thereby

Aurolab

enhancing the biocompatibility. Like cells and tissue surface, the heparin surface is negatively charged. This serves to repel bacteria and white blood cells, because they share the same surface charge. Comparison studies will be initiated with other heparin coated IOLs available in the market. Aurolab's efforts will make these lenses more affordable as the current costs of these imported lenses are expensive.

Aurolab designed a "Cataract Kit for 5 Surgeries" which is a pack of pharmaceuticals and other consumables necessary for specific cataract surgical procedures. Aurolab has been producing most of the consumables needed for cataract surgery, and by packing them all into one kit, it functions as a single window supplier. The benefits of the cataract kit include ease of ordering, inventory management and better budgeting and accounting. The cataract kit offers a wide variety of medicines and is custom assembled as per the needs of the individual customer. Customized assembly increases efficiency with less wastage of consumables. Most of the kit consumables assembled by Aurolab are CE certified and widely approved by senior surgeons.

Suture Needle Division

The suture needle division of Aurolab participated in the international competitive bid by the National Blindness Control Program of India for large quantity of 10-0 Nylon and 8-0 Silk suture needles and secured the order for 10-0 needles. This fairly big order was fulfilled within the prescribed delivery time of six months by increasing the production rate through excellent team work.

The increase in production volume required additional space for efficient production. A suitable space was made available at a different floor in the building and the whole suture needle division was shifted to this larger space with minimum production downtime through efficient planning.

This division is also closely monitoring the status of small incision sutureless IOL surgery and any impact this may have on the future sales potential of ophthalmic suture needles. In order to reduce the dependence on



Pharmaceutical Division



Suture needle Division

ophthalmic suture market, this division initiated development efforts to produce a range of suture needles used in cardiac and other microsurgical specialties, using the available technology and equipment. Discussions were held with a major cardiac hospital to identify the common suture needles used by this specialty. The cardiac specialty primarily uses taper point needles with polypropylene sutures of 6-0 to 8-0 sizes. Samples of these taper point needles were produced and given to the cardiac surgeons for their feedback. Refinement of the needles based on this feedback and further trials of the needles are in progress.

Microsurgical taper point suture needles of 10-0 nylon and polypropylene sutures were also developed and the samples are now undergoing trials by the surgeons. The suture needle division also developed the scleral– corneal suture needle used during scleral fixation IOL surgery. This needle was well received by the users and this is now supplied as a package along with the Aurolab scleral fixation IOL for better service to the surgeons. Currently the suture needle division is working on the development of absorbable suture needles in the micro and medium size range.

Pharmaceutical Division

In an effort to provide a constant and consistent source of high quality eye care pharmaceuticals and to lower the cost of drugs that are imported at high prices, Aurolab established the pharmaceutical division in 1997. Now Aurolab manufactures 45 eye drops covering antibiotics, anti-allergic, anti-inflammatory, anti-fungal, ophthalmic dyes, astringent, antiglaucoma agents, surgical adjuncts like silicon oil, PFCL, and viscoelastic solutions. In 2002 the modern state of the art pharmaceutical facility formulated twelve new drugs including Indocyanin Green and Brimonidine Tartrate. Indocyanin Green is a recent advance in ophthalmic angiography and cardiovascular diagnosis and Aurolab is the first manufacturer of this product in India. Brimonidine Tartrate is a new drug used in glaucoma treatment, and has a dual mechanism that reduces aqueous humor and increases the uveoscleral outflow.

A separate antiseptic and disinfectant production facility conforming to Indian drug control requirements was started to increase the production capacity and also to make a complete range of high technology infection control products available to other customers. Five products in attractive 500 ml plastic pack with delivery pump as an option were developed. These products satisfy the requirements of initial hand scrubbing, in between surgery hand asepsis, skin preparation, instrument disinfection and floor cleaning in the hospital.

Due to the need for increasing the production capacity and to maintain the WHO GMP certification for the facility, extensive expansion work was carried out and additional quality control equipment were added. The prestigious CE certificate was received for viscoelastic solution and trypan blue. Aurolab drugs are exported to many international customers in Central America, South America and African countries. The modern state of the art well equipped Quality Control Laboratory ensures that the quality meets with international standards.

This division is planning to develop non-steroidal anti-inflammatory drugs, ophthalmic decongestants, and sodium hyaluronate based viscoelastic solution in future.

Spectacle Lens Division

The spectacle lens division was established in 1999 to provide technical support services in production, quality control and training areas for the optical shops at Aravind Eye Hospitals.

This division has set up a central plastic lens surfacing laboratory in Madurai and plastic as well as glass lens edging facilities close to the optical shops at all the Aravind Eye Hospitals. The availability of the production facilities help the optical shops to provide better customer service and increase the sale of plastic lenses.

During the past year, this division developed the processes for producing high power aspheric lenses needed for low vision patients and these lenses are supplied to the low vision clinics in the hospitals. A new tintable hard coating process was also developed to coat plastic lenses so that they do not get scratched easily.

Aurolab

This division is supplying these coated lenses to the optical shops at an affordable price. This division also started a new auto lens edging facility at Aravind - Tirunelveli for patternless edging of plastic lenses.

Hearing Aid Division

The major objective of this division is to produce affordable, high quality hearing aids as part of the Affordable Hearing Aid Project (AHAP) of Project Impact, Inc., USA. Presently hearing aids available in developing countries are not only difficult to access, they are often not appropriate and of poor quality. Because of certain social, cultural and economic factors, though there exists a large need for hearing aid services, there is a low demand for them. This project's objectives are to address this problem by applying the Aravind Eye Care service model to hearing care services. The project involves developing a programmable analog hearing aid IC chip, assembling of the hearing aids in Aurolab and the setting up of two pilot dispensing centers for distribution of hearing aids.

The role of Aurolab is to set up and manage the production facility, produce as per Project Impact orders and deliver finished hearing aids to Project Impact for distribution. The production activities planned at Aurolab are to assemble Behind-The-Ear (BTE) hearing aids, produce custom earshells for In-The-Ear (ITE) aids and assemble custom ITE aids.

A team of six Aurolab staff underwent an extensive two weeks training programme in assembling and production of high quality hearing aids at a company in Denmark. Appropriate equipment and supplies for the production of earshells, earmoulds and microelectronic assembly of hearing aids were bought from this company. A special facility was created for housing this equipment at Aurolab. The trainer from the Danish company visited Aurolab to install the equipment and provide in-house training for a week. Pilot production was initiated and the quality of aids produced was verified. The hearing aid division looks forward to producing affordable high quality hearing aids and to act as a catalyst in making the hearing aid services affordable and sustainable in developing countries.



Dr.P.Balakrishnan and the Aurolab team with Ms.Maja Madsen, Ms. Momirka Vulevic, Ms. Lisa and Ms. Lisy in Denmark



At the inauguration of the Hearing Aid Project

Continuing Medical Education Programmes



Dr. Sangita Prasad at the Cornea symposium

Symposium on Diseases of Cornea and Refractive Surgery

LAICO, Feb 16-17

(Sponsored by the Medical Council of India)

Guest Faculty:

DR. VIRENDAR SANGWAN, L.V. PRASAD EYE INSTITUTE, HYDERABAD
—OSD & AMT
—Graft rejection and treatment
—Management of recurrent pterygium

DR. VIRENDAR SANGWAN & GEETA K VEMUGANTI, L.V. PRASAD EYE INSTITUTE, HYDERABAD
—Cultured limbal stem cell transplantation for OSD

DR. AASHISH BANSAL, L.V. PRASAD EYE INSTITUTE, HYDERABAD
—PRK lasik and lasek in perspective
—Complications of lasik
—Keratoplasty in ecstastic disorders
—Chemical injuries

DR. RAJESH FOGLA, SANKARA NETHRALAYA, CHENNAI
—Conjunctivitis
—Latest techniques in corneal transplantation

—Viral keratitis
—Corneal preservation

Aravind Faculty:

DR. M. SRINIVASAN
—Complications of RK and PRK
—Bacterial keratitis
—Fungal ulcer
—Non-infective corneal ulcers

DR. N. VENKATESH PRAJNA
—Dry eye

DR. LALITHA PRAJNA
—Microbiological investigations of corneal ulcers

DR. SANGITA PRASAD
—Blepharitis
—Stromal dystrophies

DR. R. REVATHY
—Fuch's dystrophy
—Complications of contact lens

X Update in Ophthalmology

LAICO, Feb 10-17

DR. M. SRINIVASAN
—Introduction

DR. G. NATCHIAR
—Field defects in visual pathway

DR. P. VIJAYALAKSHMI
—Examination of a patient with strabismus
—Amblyopia
—Etiology and management of paediatric cataract
—Clinical discussion on ocular motility disorders

DR. KIM
—Advances in vitreoretinal surgery

DR. USHA KIM
—Proptosis-Evaluation various presentations
Ptosis
—Orbit case discussion

DR. KRISHNADAS
—Visual fields
—Surgical procedures in glaucoma

DR. R. RAMAKRISHNAN
—Optic disc changes in glaucoma
—Lasers in glaucoma
—Glaucoma case discussion

DR. S.R. RATHINAM
—Uveitis management and case discussion

DR. SHUKLA
—Diabetic retinopathy

DR. RODNEY MORRIS
—Endophthalmitis

DR. LALITHA PRAJNA
—Slides and specimens in microbiology

PROF. SUKUMARAN
—Refraction demonstration

DR. R. GOPAL
—Papilloedema

DR. SHASHIKANTH SHETTY
—Esotropia
—Exotropia

DR. MAHESH KUMAR
—Pathology of malignant lesions of lids

DR. JACOB MATHEW
—Retinoblastoma and malignant melanoma

DR. ILANGO
—Systematic workup in uveitis

DR. MIHIR KOTHARI
—Diplopia charting/Hess charting instruments in paediatrics

DR. LIZ THOMAS
—Principles of gonioscopy - video
—Medical management of glaucoma



Dr. Rajesh Fogla at the Cornea Symposium



Participants of the Tenth Update programme with Dr. C.Thirumalachar and Medical Officers of Aravind Eye Hospital

Seminar on Geriatric Eye Diseases

Aravind-Tirunelveli, March 23
(Organised in association with Senior Citizens Forum and Retired Revenue Officials Association)
About 100 senior citizens and retd. revenue officers attended the programme. An exhibition was also conducted to explain the various eye diseases.

DR. R. RAMAKRISHNAN
—Overview of geriatric eye diseases

DR. MANEKSHA
—Cataract

DR. MOHIDEEN
—Glaucoma

DR. SHERMILA
—Retina

DR. MEENAKSHI
—Eye donation

Paediatric Ophthalmology Symposium for Paediatricians

Aravind-Coimbatore, April 17
(organised by Aravind Eye Hospital, and Indian Academy of Paediatrics, Coimbatore for practicing paediatricians of Coimbatore, Tirupur and Pollachi)
The highlight of the symposium was the teleconferencing by Dr. P. Vijayalakshmi on congenital rubella syndrome from Aravind-Madurai.

DR. R.D. RAVINDRAN
—Introduction

DR. KALPANA NARENDRAN
—Common paediatric eye problems

DR. H. KISHORE
—Refractive errors

DR. THOMAS MATHEW
—Strabismus and amblyopia

DR. V. NARENDRAN
—Retinopathy of prematurity

DR. P. VIJAYALAKSHMI
—Congenital rubella syndrome

Symposium on Diabetes & the Eye

Aravind-Coimbatore,
May 18 -19
About 70 ophthalmologists and PG students participated.

Guest Faculty:

DR. CHANDRAN ABRAHAM,
CHENNAI
—DRS, ETDRS, DCCT and UKPDS – Results and relevance
—How to do a PRP and why

DR. S. NATARAJAN, ADITYA
JYOTHI EYE HOSPITAL,
MUMBAI
—Diabetic macular oedema – clinical features and management
—Changing indications for vitrectomy in diabetic retinopathy
—Advanced diabetic eye- Vitreous surgery for patients with advanced disease

DR. SIDDHARTH SHAH,
MUMBAI
—Diabetes mellitus – Recent concepts
—Diabetes and other systemic conditions on diabetic eye
—Fitness for diabetic patients for ocular surgery



Dr. P. Namperumalsamy and Dr. Nitin Shetty at the Symposium on Diabetes & the Eye

DR. NITIN SHETTY, SANKARA
NETRALAYA, CHENNAI
—FFA, OCT, USG
—Differential diagnosis between AION and diabetic papillopathy
—Newer investigative and therapeutic tools in the management of diabetic retinopathy

Aravind Faculty:

DR. R.D. RAVINDRAN
—Diabetes and the eye – An overview
—Neuro-ophthalmic manifestations of diabetes

DR. P. NAMPERUMALSAMY
—Magnitude and challenges in diabetic retinopathy
—Principles of vitreous surgery

DR. KIM
—Diabetic vitreous haemorrhage – Investigation and management

DR. SARAVANAN
—Fundus examination - Direct, indirect & slit lamp

DR. DHANANJAY SHUKLA
—Etiopathogenesis and biochemical aspects of diabetic retinopathy
—Prognostic factors in diabetic retinopathy
—Pharmacotherapy of diabetic retinopathy

DR. S. MANOJ
—Diabetic screening

DR. RAGHURAMAN
—Classification and clinical features of diabetic retinopathy
—Retinopathy and pregnancy – Special considerations

DR. RODNEY MORRIS
—Laser – Wavelengths and types

DR. V. NARENDRAN
—Complications of laser treatment

DR. REVATHY
—Cornea and refractive changes in Diabetes mellitus

DR. KALPANA NARENDRAN
—Cataract surgery and diabetes

DR. P. SATHYAN
—Glaucoma and diabetes

Advances in Vitreo-Retinal Disease Management

Aravind-Madurai, August 17-18

Guest Faculty:

DR. ATUL KUMAR
AIIMS, NEW DELHI
—PVR - Classification, prevention and management
—ICG/FFA in ARMD
—Macular hole surgery and ILM Peeling
—Vitreous surgery in diabetic retinopathy (DRVS)

DR. S. NATARAJAN
ADITYA JYOTHI EYE HOSPITAL,
MUMBAI
—Advances in vitreous instrumentation

- Giant retinal tear
- IOFB removal – timing, technique and complications
- Photodynamic therapy

DR. SUBHADRA JALALI,
L.V.PRASAD EYE INSTITUTE,
HYDERABAD

- Prophylaxis of retinal detachment
- ROP: screening, clinical features classification and management (Cryo and laser studies)
- Electrophysiological tests in retinal vascular disorders

DR. MANGAT R DOGRA,
POSTGRADUATE INSTITUTE OF
MEDICAL SCIENCES,
CHANDIGARH

- Medical treatment (including AREDS study)
- ROP
- Expulsive haemorrhage prevention and management

DR. MANISH NAGPAL, RETINA
FOUNDATION, AHMEDABAD

- Surgical management of ARMD
- Intravitreal steroids: Indications and results
- Management of cystoid macular oedema

DR. MADHVI SHETH, GOVIND
CLINIC, BARODA

- Management of proliferative diabetic retinopathy (DRS, ETDRS)

Aravind Faculty:

DR. P. NAMPERUMALSAMY

- Basic principles of vitreous surgery
- Venous occlusions and management (CRVO and BRVO study)

- Principles and techniques of scleral buckling
- Diabetic retinopathy – Magnitude, challenges and screening
- Pharmacological treatment of diabetic retinopathy

DR. R. KIM

- Alternative surgical techniques (emphasis on pneumoretinopexy)
- Endophthalmitis: Prophylaxis and management (EVS study)

DR. V. NARENDHAN

- Indications for pars plana surgery
- Conventional laser treatment (Macular Photocoagulation Study)

DR. S.R. MAMATHA

- Vitreous substitutes: Gases/Silicon oil/PFCL (Silicon Oil Study)

DR. S. MANOJ

- ARMD – Prevalence, classification and clinical features
- Trans-pupillary thermotherapy

DR. DHANANJAY SHUKLA

- Parafoveal telangiectasia
- Management of non-proliferative diabetic retinopathy (ETDRS)

DR. RAGHURAMAN

- Diabetic retinopathy – Classification (ETDRS) & clinical features

DR. P. VIJAYALAKSHMI

- Newer aspects of managing retinoblastoma

DR. VR. MUTHUKARUPPAN

- Vascular growth factors & inflammatory cytokines



Dr. Dhananjay Shukla delivering a lecture at the Retina Symposium

DR. P. SUNDARESAN

- Genetic approach to ARMD

DR. RODNEY MORRIS

- Management of dropped nucleus and IOLs

DR. K. CHANDRAMOHAN

- Indirect ophthalmoscopy & slit lamp biomicroscopy

DR. NARESH BABU

- Normal fundus, periphery and pars plana

CME on Paediatric Ophthalmology

LAICO, September 15

Dr. G. Venkataswamy gave the inaugural address. Dr. Prof. C.S. Rex Sargunam, Director & Superintendent, Institute of Child Health & Hospital for Children, Chennai was the chief guest. Distinguished guests were Prof. Dr. A.J. Balakrishna Rao, Dean, Madurai Medical College and Prof. N. Edwin, President Elect, IAP, Tamilnadu. Many topics were discussed and also a video on paediatric cataract and squint were shown.

DR. P. VIJAYALAKSHMI

- Development of the eye and estimation of visual acuity in children
- Population based surveillance for CRS
- Ocular features in syndromes

DR. LAKSHMI RAHAMATULLAH

- Vitamin A deficiency and Anaemia

DR. S.R. RATHINAM

- Ocular manifestations of intrauterine infection

DR. LIPIKA ROY

- Prematurity and the eye

DR. M. SRINIVASAN

- Ocular infections and injuries

DR. USHA KIM

- Orbital disorders in paediatric age group

DR. K. SUNDARESH

- Common paediatric eye problems

DR. ILANGO

- Integrated education for the visually disabled
- Low vision rehabilitation - Video

VIII Short term IOL CME

Goa, September 20-22

The programme was planned as an informal get-together for IOL alumni members and it was more of a weekend outing and hence was conducted at Goa.

DR. G. NATCHIAR

- Recent changes in the expectations of cataract patients

MR. R.D. THULASIRAJ

- Monitoring the quality of work through computer
- Investment in instruments

CME Programmes



Dr. Jacob Mathew, Dr. Anita, Dr. G. Natchiar, Dr. Minu Mathen and Dr. Chandrakanth Shetty during the Eighth IOL Microsurgery CME at Goa

—Avenue to increase the revenue in ophthalmic practice

DR. R. RAMAKRISHNAN
—SICS in difficult situations
—Management of co-existent glaucoma and cataract
—Small incision suture less surgery – Techniques and management in difficult situations

DR. R.D. RAVINDRAN
—Prevention & management of endophthalmitis

DR. JACOB MATHEW
—Phaco - dynamics & techniques:

DR. CHANDRAKANT
—Capsular tension ring – new device its uses in subluxated cataract, traumatic cataract, and coloboma cataract & in zonulodialysis

DR. ANITA
—When to convert?

DR. MINU MATHEN
—Complication of SICS

DR. S. ARAVIND
—Ophthalmic practice beyond cataract in future

—Maintenance of medical records and its implication in consumer cases

DR. P. BALAKRISHNAN
—Economics of ophthalmic instruments

11th Update in Ophthalmology

Aravind-Coimbatore, September 27

DR. R. RAMAKRISHNAN
—ONH charges in areas

—Automated perimetry- Interpretation
—Artificial drainage devices in glaucoma
—Diagnosis and management of congenital glaucoma

DR. SANJEEV PRASAD
—CT Scan & MRI
DR. P. VIJAYALAKSHMI
—Ptosis
—Decision making in strabismus and strabismus surgeries
—Retinoblastoma

DR. USHA KIM
—Proptosis

DR. KULDEEP
—Evaluation of squint
—Amblyopia, syndromes, restrictive and vertical strabismus

DR. THOMAS MATHEW
—Esotropia
—Paediatric ophthalmology- Evaluation of visual acuity in children
—Prematurity & ROP

—Complications of strabismus surgeries

DR. KISHORE
—Exotropia
—Paediatric cataract & management
—Cranial nerve palsies 4th nerve

DR. MAITHREYI
—Posterior segment evaluation (direct, indirect, slit lamp biomicroscopy)
—Fundus fluorescein angiography

DR. PARAG
—Role of USG in the diagnosis of posterior segment disorders
—Peripheral retinal degeneration

DR. SARAVANAN
—Recent advances (ICG, confocal retinal tomogram)

DR. ABHIJIT CHATTOPADHYAY
—Pathogenesis and classification of diabetic retinopathy and clinical features



Participants of the Eleventh Update programme with Dr. R.D. Ravindran and other medical officers at Aravind- Coimbatore

—Hypertensive retinopathy & vein occlusion

DR. NARENDRAN

—Laser management of diabetic retinopathy
—Surgical management of diabetic retinopathy

DR. RAGHURAM

—Rheg. RD-clinical features & differential diagnosis
—Macular disorders

DR. SARAVANAN

—Retinal reattachment surgery
—Endophthalmitis

PROF. SUKUMARAN

—Refraction

DR. R.D. RAVINDRAN

—Papilledema
—Optic neuritis

DR. SUDHA

—Optic atrophy
—Cranial nerve palsies 6th nerve

DR. SANDEEP MUNGANTIWAR

—Cranial nerve palsies 3rd nerve

DR. G. NATCHIAR

—Visual fields

DR. LOLLY

—Bacterial keratitis
—Keratoplasty –Eye banking

DR. R. ANITA

—Viral keratitis
—PUK
—Chemical burns

DR. N.V. PRAJNA

—Dry eye syndrome
—Refractive surgeries
—Ocular surface disorders

DR. M. SRINIVASAN

—Fungal keratitis

DR. PRASANNA

—Pathology of common ocular disorders

DR. CHOCKALINGAM

—Gonioscopy & tonometry
—Lasers in glaucoma
—Gonioscopy & tonometry

DR. P. SATHYAN

—Neuroprotection
—Wound healing & antimetabolites in glaucoma surgery

DR. SASIKUMAR

—Basics of cataract surgery

DR. B. MANOHAR BABU

—Introduction, history/
Clinical exam in uveitis
—Uvea case demonstration

DR. S.R. RATHINAM

—DD/Investigations/
Management of uveitis

DR. L. SRINIVASAN

—Management of common surgical complications

Workshop on Avoidable Blindness for Rotarians

Aravind-Tirunelveli, October 2

This workshop was organised in association with the Rotary Club of Tirunelveli West. The members of various Rotary Clubs in Tirunelveli district participated in the seminar. Rotarian Dr. R. Subramanian inaugurated the workshop and the workshop co-chairman PHF S. Jegadeesan spoke about the need for the workshop. Dr. R. Ramakrishnan, Chief Medical Officer of Aravind-Tirunelveli provided an overall view of ophthalmic

problems and elaborated on the necessity to create awareness about the various eye diseases. In the technical session, Dr. V. Maneksha, Dr. M.V. Sharmila, Dr. R. Meenakshi, Dr. R. Mohideen and Dr.P.Vasu spoke about cataract, diabetic retinopathy, school children screening, glaucoma and eye donation.

Update in Ophthalmology for Medical Practitioners

Aravind-Tirunelveli, October 6

Around 60 medical practitioners from Tirunelveli, Kanyakumari and Tuticorin Districts attended the course.

DR. R.K. REDDY

—Common eye disorders

DR. VASU

—Refractive errors and refractive surgery

DR. MANEKSHA

—Recent advances in cataract management

DR. SHERMILA

—Retinal disorders

DR. P. NAMPERUMALSAMY

—Diabetic retinopathy

DR. MOHAIDEEN

—Glaucoma- Basics

DR. R. RAMAKRISHNAN

—Glaucoma- Recent advances

DR. MEENAKSHI

—Paediatric eye diseases

DR. R.P. RAO

—Red eye

DR. SURESH

—Ophthalmic emergencies

DR. VENUGOPAL

—Headache & neuro-ophthalmology

DR. MEENAKSHI

—Eye donation, eye banking

The 13th Annual Conference of the Oculoplastics Association of India

LAICO, December 7- 8

Guest Faculty

DR. BILL STEWART, CALIFORNIA PACIFIC MEDICAL CENTRE, USA

—Ptosis to gnosis

DR. SHYAM SUNDAR PRASAD, HYDERABAD

—Blow out fracture

—The translucent LPS and upper eye lid flip sign

—Fibrotic muller's muscle in congenital ptosis

DR. MARK DUFFY, EYE & EAR INFIRMARY, USA

—Ectropion management in facial palsy

—Botox

—Lasers in oculoplasty

DR. HRISHIKESH,

SURYA VILLAGE, MUMBAI

—Evaluation of ptosis

DR. BETHARIA,

AIIMS, NEW DELHI

—Surgical management of ptosis

DR. LAKSHMI MAHESH,

SANKARA NETHRALAYA,

CHENNAI

—Complication of ptosis

DR. AGARWAL, LUCKNOW

—Marcus Gunn phenomenon

CME Programmes

DR. RAJAT MAHESHWARI, SHRI
GANAPATHI NETHRALAYA,
JALNA

—Lids - Entropion

DR. SANTHOSH HONAVAR, L.V.
PRASAD EYE INSTITUTE,
HYDERABAD

—Management of malignant
lid lesions

DR. SUNDAR RAJAN, MADURAI
—Ptosis - My experience

DR. BASKARARAJAN,
SARASWATHI EYE HOSPITAL,
MADURAI

—Orbital surgery – Then &
now

DR. NIRMALA SUBRAMANIAM,
SANKARA NETHRALAYA,
CHENNAI

—Orbital approaches

DR. BIPASHA,
M.P. BIRLA EYE HOSPITAL,
CALCUTTA

—Congenital dacryostenosis

DR. LAKSHMI,
SANKARA NETHRALAYA,
CHENNAI

—Endoscopy in orbital
diseases

DR. ARAM,
GOVT. HOSPITAL, MADURAI

—Skin flaps – Different types

DR. AMARNATH, MEENAKSHI
MISSION HOSPITAL &
RESEARCH CENTRE, MADURAI

—Radiotherapy orbital
diseases

DR. K.G. SRINIVASAN,
K.G.S. SCAN CENTRE,
MADURAI

—Imaging in orbital
disorders

—The translucent LPS and
upper eye lid flip sign

DR. M. ARUCHAMY,
COIMBATORE

—Management of malignant
epithelial eyelid tumors

DR. RADHAKRISHNAN
SANKARA NETHRALAYA,
CHENNAI

—Management of lid injuries

Aravind Faculty

DR. USHA KIM

—Proptosis evaluation &
various presentations

—Socket reconstruction

—How do we tackle orbital
infections

DR. SUBBURAM

—Neuro surgical approach
to orbit

DR. MANEKSHA
—Thyroid related
orbitopathy
—Cysticercosis

DR. SIDDHARTHAN
—Orbital FB

DR. ANAND B
—Ewing's sarcoma

DR. ARAVIND
—Bilateral pseudotumour

DR. ANURADHA
—Fraser's syndrome

DR. DHIRAJ
—Paediatric proptosis

DR. L. SRINIVASAN
—DCR

DR. NAGENDRA SHAH
—DCR – Intubation

Free Papers

DR. M. SURESH NAIDU,
MANGALORE
—Less expensive way of
rehabilitating anophthalmic
patients

DR. C.P. VENKATESH,
BANGALORE
—Utility of acrima scintig-
raphy (L.S) in functional
naso lacrimal duct
obstruction (FNLDO)

DR. SMITA MENON
—Silastic sheets in orbital
fracture

DR. MEENA PRIYADHARSHINI
—Endonasal DCR

DR. CHANDRASHEKAR
—Ocularisry

DR. MAHESH KUMAR
—Orbital manifestations of
neuro-ophthalmic condi-
tions

DR. DEVANDRA GUPTA

—Blepharoptosis - Dynamic
levator resection with
dissection and
peroperative prediction of
surgical outcome
—Correction of post burn
deformities of lid

DR. RAMESH MURTHY
—Sebaceous gland carci-
noma in the Asian Indian
population

DR. JYOTHI R PRANTAR
—Anophthalmic orbital
implants

DR. JAYANTA KR DAS
—Color doppler imaging in
orbital vascular lesions
—Orbital injury with
retained firearm foreign
body - 4 cases

DR. VIKAS MAHATME
—Cosmetic corneal tattoo-
ing finds re-birth in new
pigment

Hospital Based Training In Paediatric Ophthalmology

(Sponsored by ORBIS)
Aravind-Coimbatore,
December 6-14

Dr. Thomas Douglas France,
MD, FACS, Dr. Lesile
Weingeist France, Sr.
Orthoptist from Wisconsin-
Madison, were here for a



Dr. Thomas Douglas France and
Dr. Lesile Weingeist France at
Aravind-Coimbatore



Dr. Usha Kim and Dr. Bill Stewart at the Orbit Conference

week. Lectures, case discussion, surgical case demonstration and symposium were held.

Practical Approaches in Management of Glaucoma

Aravind-Tirunelveli, December 14-15

Guest Faculty

DR. L. VIJAYA, SANKARA NETHRALAYA, CHENNAI

- Ultrasound bio-microscopy (UBM)*
- Wound healing and antimetabolites in GFS*

DR. SRIDHAR RAO, KUMARAN HOSPITAL, CHENNAI

- Heidelberg retinal tomography & laser polarimetry (GDx)*
- Complications & management of MMC trabeculectomy*
- Ocular blood flow in glaucoma*
- Update on prostaglandins*

DR. VELAYUTHAM, RIO, CHENNAI

- Target IOP + B-bloc. + CAI*

—*PACG - Stepwise approach in diagnosis & management*

- Traumatic glaucoma, causes & management*
- Artificial drainage devices in glaucoma*

DR. MURALI ARIGA, SUNDARAM MEDICAL FOUNDATION, CHENNAI

- Automated visual fields basics and interpretations*
- Laser iridotomy - Indication & complication*

DR. S.S. PANDAV, P.G.I.M.E.R, CHANDIGARH

- Pitfalls in automated visual fields*
- Optical Coherent Tomography (OCT)*
- Role of ALT in POAG - Now*
- Genetic & risk factors of POAG*
- IOP titration following GFS*

DR. ANIL MANDAL, L.V.PRASAD EYE INSTITUTE, HYDERABAD

- Diagnosis & management of paediatric glaucoma*
- Management of dysfunctional bleb*

—*Cataract extraction following filtering surgery*

- DR. WIDO BUDDE, GERMANY
- Central retinal vessel trunk and cilioretinal arteries: Influence on glaucomatous optic disc damage*
- Inter eye difference in chronic open-angle glaucoma pts with unilateral disc hge.*

Aravind Faculty

DR. R. RAMAKRISHNAN

- ONH evaluation in glaucoma*
- Basics in trabeculectomy*
- Glaucoma following ocular surgery*

DR. S.R. KRISHNADAS

- Frequency Doubling Perimetry (FDP)*
- Principle of medical management*
- Role of diode cyclo photocoagulation*
- PXF glaucoma - Indian scenario*

DR. P. SATHYAN

- Role of alpha agonist*
- Neuroprotection in glaucoma -The future*
- Newer laser procedures*
- Non-penetrating filtering surgery*

DR. R. RAMAKRISHNA REDDY

- Role of tonometry*
- Pathogenesis of ONH changes in glaucoma*

DR. MOHIDEEN

- Gonioscopy - A necessary tool*
- Steroid induced glaucoma -A heavy price for negligence*

DR. MURALI

- Management of co-existent cataract & glaucoma*



Dr.S.R.Krishnadas at the symposium on Practical Approaches in Management of Glaucoma

Scientific Papers Presented and Published

60th All India Ophthalmic Society (AIOS) Conference

Ahmedabad, January 4-8

DR. P. NAMPERUMALSAMY
—Are we blind to diabetic retinopathy?

DR. G. NATCHIAR
Co-chaired the session on neuro-ophthalmology

MR. R.D. THULASIRAJ
—Vision 2020- The Right to Sight; priorities and strategies for South East Asia.
—Challenges in eye care management

MR. R.D. THULASIRAJ AND DR. R.D. RAVINDRAN
—Planning, design & goal setting capacity building

DR. R. RAMAKRISHNAN
—Surgical management of congenital glaucoma
—Choroidal drainage and reformation of anterior chamber

DR. P. VIJAYALAKSHMI
—Accommodative esotropia and video presentation

DR. RATHINAM SIVAKUMAR
—Infectious vs non-infectious uveitis
—Clinical approach and laboratory diagnosis of scleritis

DR. R. KIM
—Free paper on “Cataract and retinal detachment: one session management”

DR. USHA KIM
—Triple procedure in the treatment of facial palsy

DR. V. NARENDRAN
—Trans vitreal biopsy of subretinal abscess

—Prevalence of diabetic retinopathy among self reported diabetics

DR. KALPANA NARENDRAN
—Surgical outcome of duane’s retraction syndrome
—Myopic shift apart IOL implantation in children

DR. RAGHURAMAN
—Trans vitreal biopsy of subretinal abscess

DR. SUDHA
—Cortical blindness due to cerebral metastasis

DR. R.D. RAVINDRAN
—Video - Transition to SICS

DR. DHANANJAY SHUKLA
—Guest lecture on “ Post foreign body removal retinal detachment”

DR. R. VENKATESH
—The effect of world bank project in clearing the backlog of cataract in the state of Tamilnadu.

DR. S. MANOJ
—Visual outcome following redetachment surgery
—Hypopyon uveitis - The Indian spectrum

DR. KULDEEP SRIVASTAVA
—Surgical management of double elevator palsy
—Desirable surgical correction of exotropias
—Low vision rehabilitation in children

DR. SHASIKANTH SHETTY
—Bilateral retinoblastoma - Epidemiology and mode of presentation

DR. GAURAV KAKKAR
—Duane’s retraction syndrome



Dr.VR. Muthukkaruppan, Dr.P.Sundaresan, Ms.J.Kanagavalli, Mr.A.Vanniarajan, Ms.C.Gowri Priya and Mrs.Arptha Saravanan at the Annual Meeting of Indian Eye Research Group, LV Prasad Eye Institute

DR. INDRAJIT SINGH
—Neurocysticercosis presenting with bilateral papilloedema-A case report

DR. K. KARUNAKAR REDDY
—Morphological study of CCC in mature cataracts with and without trypan blue

DR. DEEPA RAJESWARI
—Traumatic optic neuropathy - a study of 200 cases

DR. HRISIKESH
—Volumetric determination of implant size in paediatric enucleation

XI Annual Meeting of Indian Eye Research Group

L.V. Prasad Eye Institute, Hyderabad, January 19-20

DR. VR. MUTHUKKARUPPAN
—Studies on the aetiology of uveitis associated with Leptospirosis.

DR. P. SUNDARESAN
—TIGR/MYOC mutations in families with juvenile onset

primary open angle glaucoma in Indian population.

MS. C. GOWRI PRIYA
—Preparation and identification of antigen from leptospire, associated with uveitis.

MRS. ARPITHA SARAVANAN
—To generate corneal epithelium in vitro from cadaver limbal rings.

MR. G. NEETHIRAJAN
—Detection of leptospiral DNA in the ocular samples by PCR.

MS. J. KANAGAVALLI
—Mutation analysis in human PAX6 gene in aniridia.

MR. A. VANNIARAJAN
—Myocilin – A candidate protein in primary open angle glaucoma



Dr.VR.Muthukkaruppan, Prof.V.Srinivasan and Dr.Ilango at an awareness programme on eye care and eye diseases

All India Academy of Paediatrics Conference

Bangalore, Jan 24-25
Dr. Lakshmi Rahamathullah presented the VASIN data and Vitamin A project in the conference.

Workshop on Strabismus

RIO, Chennai, Feb 2
Dr. P. Vijayalakshmi attended the workshop and examined strabismus cases. She also gave video presentation on
—General guidelines on surgical management of strabismus
—Duane's retraction syndrome

Awareness Programme on Eye Care and Eye Diseases

(organised by Indian National Science Academy and Department of Animal Science, Bharathidasan University and Aravind-Madurai) Trichy, Feb 8

DR. VR. MUTHUKKARUPPAN
—Basic research in ophthalmology

PROF. V. SRINIVASAN
—Use of sound and light in diagnosis and cure of eye diseases

DR. K. ILANGO
—Advances in ophthalmic surgery
—Common eye diseases in India

Symposium on Uveitis & Intraocular Inflammation

LV Prasad Eye Institute, Hyderabad, Feb 23-24
Dr. Rathinam
—Epidemiology & risk factors in leptospiral uveitis
—Paediatric uveitis in South India
—Diagnostic challenges in infectious uveitis
—Newly recognised trematode induced granuloma of the conjunctiva and iris

Midyear Symposium of TNOA

Kanyakumari, March 10
DR. R. RAMAKRISHNAN
—Early diagnosis of glaucoma

Trouble Shooting in Ophthalmic Practice

M. M. Joshi Eye Institute, Hubli, April 7-9
Karnataka State Ophthalmic Association and Deccan Ophthalmic Society.

DR. S.R. KRISHNADAS
—Choice of initial medical therapy in glaucoma
—Open angle glaucoma suspect

Primary Eye Care in India

(organized by Ministry of Health, Government of India)
Coimbatore, April 12

DR. R. RAMAKRISHNAN
—Prevalence of glaucoma in South India

Glaucoma Workshop

(organized by Varanasi Ophthalmological Society)
Karaundi, Varanasi, April 14

DR. R. RAMAKRISHNAN
—Surgical management of open angle glaucoma
—Pitfalls in automated perimetry
—Management of intractable glaucoma

International Congress of Ophthalmology (ICO) Conference,

Sydney, Australia, April 21-25

DR. P. NAMPERUMALSAMY
—Translating programs into action in India
—What is the cost of refractive error correction in developing countries? Perspective from India

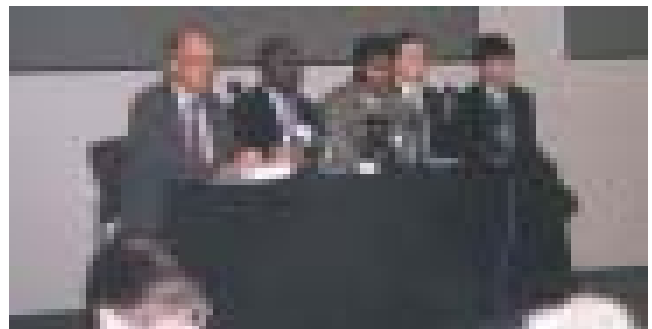
DR. KIM
—Efficiency in ophthalmic surgery
Poster exhibit on
—Lightening high speed vitreous cutter - Our experience

PROF. V. SRINIVASAN
—Training of equipment maintenance technicians

IAPB Vision 2020 Appropriate Technology Working Group Meeting

—Appropriate Technology for Instruments Maintenance, and
—Some useful tips for Instruments Maintenance

DR. USHA KIM
—Role Of mid-level ophthalmic personnel in achieving Vision 2020
—The Aravind Model



Dr.R.Venkatesh at the ICO conference in Sydney

Scientific Papers Presented and Published

DR. S.R. RATHINAM
International Uveitis Society Group
—Newly recognised presumed trematode induced ocular inflammation in children

DR. R. VENKATESH
—Cost effectiveness of cataract surgeries—a comparison of ECCE-PCIOL, a manual SICS and Phaco at Aravind Eye Hospital, Madurai, India
IAPB Vision 2020 Appropriate Technology Working Group Meeting
—High volume quality cataract surgery
Symposium on cataract surgery in developing countries
—Cataract surgery in South East Asia

CME on Modern Trends in Uveitis

Organised by the Pathanamthitta Ophthalmic Club and the Kerala State Ophthalmological Society
Tiruvalla, Kerala, May 26

DR. MANOHAR BABU
—Clinical diagnosis in uveitis
—Ocular toxoplasmosis
—Leptospirosis
—VKH syndrome

CME Programme at the Regional Institute of Ophthalmology

Thiruvananthapuram, June 2

DR. M. SRINIVASAN
—Infective keratitis
—Management of corneal lacerations

DR. RATHINAM
—Recent trends in the management of uveitis

Biennial Conference of Strabismological Society of India –2002

Hyderabad, July 6-7

DR. P. VIJAYALAKSHMI
—Management of upshoots and downshoots in duane retraction syndrome
—Surgical anatomy of extraocular muscles and general consideration of strabismus surgery

50th Tamil Nadu Ophthalmic Association Conference

Trichy, August 2- 4

DR. M. SRINIVASAN
—Amniotic Membrane Transplantation (AMT) (Debate)
—Blepharitis and meibomitis
—Post penetrating keratoplasty infectious keratitis (Panel discussion)
—Trypan blue in CCC

DR. P. NAMPERUMALSAMY
—DR screening why, when & how?

—New hope for the hopeless - Age related macular degeneration

DR. G. NATCHIAR
—High volume, High quality cataract surgery - Relevance in the 21st Century
—Ethics in ophthalmology (Panel discussion)

DR. R. KIM
—Retinal vein occlusions management

DR. USHA KIM
—Contracted socket management
—Orbital injuries
—Live surgical demonstration on ptosis correction

DR. DHANANJAY SHUKLA
—Analog vs digital fluorescein angiography

DR. S.R. RATHINAM
TELEMEDICINE SESSION OF TNOA
—Conglomerate tubercle!! It is not due to TB

DR. N. VENKATESH PRAJNA
—Chiron LASIK unit - Technical specification & economics

DR. S. ARAVIND
—Patient counselling

DR. HARIPRIYA
—Duane's syndrome with retinitis pigmentosa

DR. R. VENKATESH
—Impact of world bank fund on cataract backlog in Tamil Nadu

Video
—Rock and roll prolapse nucleus in manual SICS

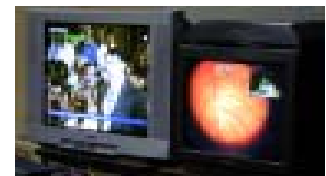
MR. R.D. THULASIRAJ
—Practical management (Panel discussion)

DR. VEENA
—A comparison of total late postoperative astigmatism between phacoemulsification and manual SICS

DR. K. THIRUVENGADA KRISHNAN
—Postoperative endothelial cell loss following phacoemulsification and manual SICS

DR. BALAMURUGAN
—Comparison of safety and efficacy of timolol 0.5%, timolol GFS and brimonidine tartrate 0.2%: a comparative randomized double masked prospective pilot study

DR. ILANGO
—High quality, low cost closed circuit television systems: A boon to low vision patients



Dr. Rathinam delivers her lecture from Aravind-Madurai on trematode induced paediatric granulomatous uveitis to the audience of TNOA conference at Trichy through Aravind Tele-ophthalmology Network (ATN)

- Low vision aids in the context of Vision 2020
—Importance of early visual rehabilitation of children
Video
—Are we blind to low vision
Poster
—Non optical devices
- DR. SUNDARESH
—Squint correction with PCIOL implantation-combined procedure
Video
—Management of DRS - Y split procedure
- DR. SIVAPRASAD
—LASIK - Our experience in 321 eyes
- DR. SANGITA PRASAD
—Intraepithelial and invasive squamous cell carcinoma of the conjunctiva: how common?
—LASIK enhancement by recut
—Necrotizing scleritis following cataract surgery
- DR. ANAND RAJENDRAN
—Presumed sarcoid granuloma of the optic nerve head
—Malignant melanoma of the iris
- DR. NAGENDRA SHAH
—Analysis of success rates of repeat DCR and repeat DCR with silicone intubation.
—Role of surgical correction in treating epiphora in cases of centurion syndrome.
- DR. RAJEEV TANAWADE
—Bilateral choroidal osteoma – A case report
- DR. SHARMILA
—Congenital ectropion uveae with primary glaucoma associated with irido trabecular dysgenesis
—Herpes zoster ophthalmicus with multiple cranial nerve palsies
- DR. KAVITHA
—Congenital fistula of lacrimal gland-TARSAL TYPE: A case report
- DR. ANANDHI SUBRAMANIAN
—Rare associations of a common genetic disorder
—Rare ocular manifestation in terminal parotid recurrence
- DR. DEEPAK AGARWAL
—An unusual case of progeria like dwarfism
- DR. JACOB S. MATHEW
—Trypan blue - “Never Say Die” for white cataracts to phacoemulsification
—Phacoemulsification in posterior polar cataract
- DR. MINU M. MATHEN
—VKH syndrome: a clinical profile in South Indian population
- DR. ANITHA
—Role of NSAID in phacoemulsification to control postoperative inflammation and in maintaining intraoperative mydriasis
- DR. P. PARVATHY
—Surgical and visual outcome in vitrectomised eyes with retained lens fragments after phacoemulsification
- DR. RAJESH PAREKH
—Risk factors for CCS
—Malignant orbital tumors: A clinicians dilemma!
—Clinico-pathological study of malignant orbital lymphomas
- DR. RAJEEV KUMAR
—Retrospective study of Nocardia endophthalmitis
—Nocardia endophthalmitis following cataract surgery
- DR. R. RAMAKRISHNAN
—Management of co-existent glaucoma and cataract - SICS trabeculectomy vs phaco-trabeculectomy”
- DR. MOHIDEEN ABDUL KADER
—Steroid induced glaucoma - “Word of caution”
- DR. RAVI PULLESWARA RAO
—Comparative clinical study between foldable acrysof (Acrylic) and silicon IOL's
- DR. SHAMIK ANIL AMBETKAR
—Ocular firecracker injuries
- DR. M.S. SUNIL
—Causes of visual disability in rural school children - A study
- DR. M.P.S. PARVATHI
—Neurocysticercosis presenting with disc pallor
- DR. RAMAKRISHNA REDDY
—Clinical outcome of SICS in phacolytic glaucoma
- MR. JAYAHAR BHARATHI
—Trauma & corneal ulcer
- DR. R.D. RAVINDRAN
—Ocular trauma
—Practical management (panel discussion)
—Manual SICS
He also performed live surgery
- DR. KALPANA NARENDRAN
—Restrictive strabismus
—SICS in paediatric cases
—Treatment of exotropia
—Postoperative complications of squint surgery
—Management of traumatic cataract
- DR. V. NARENDRAN
—Internal limiting membrane peeling
- DR. P. SATHYAN
—Antimetabolites in primary practical tips (symposium)
—Phaco in phacolytic glaucoma (video presentation)
—Newer generation glaucoma surgical procedures
—IOP fluctuations in sutureless surgeries
- DR. SANDEEP MUNGANTIWAR
—Causes of impaired visual outcome following phacoemulsification
- DR. SASIKUMAR
—Progressive astigmatism in scleritis
- DR. NILESH JAIN
—Efficacy of supratarsal corticosteroid injection for the treatment of seasonal exacerbation of VKC
- DR. CHOCKALINGAM
—Comparison of phaco triple with 5.5 mm rigid lens versus small incision ECCE (Phaco sandwich) triple with 6 mm single piece lens
- DR. KISHORE
—Surgically induced astigmatism in manual SICS vs phacoemulsification



Dr.G.Natchiar at the Update in Neuro-Ophthalmology,Chennai

—Paediatric post traumatic endophthalmitis

DR. THOMAS

—Glass prescription in a squinting child
—Optic neuritis in children

DR. SUDHA

—Ocular surface squamous neoplasia

DR. MANOHAR BABU

—Progressive astigmatism in scleritis, (free paper)
—Outer retinitis in toxoplasmosis, (free paper)
—VKH - An analysis of 22 cases, (free paper)
—A case of choroiditis-(uvea symposium)
—HIV - Our experience-(HIV- update)

DR. RAGHURAMAN

—Postoperative Nocardia endophthalmitis

DR. SARAVANAN

—Screening and management of ROP

DR. A. RAGHURAM

—Efficacy of ARC - In cases of NVG 2 To PDR and veno occlusive disorder

DR. ABHIJIT CHATTOPADHYAY

—Management of retinal detachment in eyes- with RC colabama

CME (organised by Malanad Ophthalmic Association)

Shimoger, August 4

DR. L. SRINIVASAN

—How I do my manual SICS, difficulty in nucleus delivery, PCR without vitreous Loss, SICS in high myopia

“Meditel 2002” - National Conference on Medical Informatics and Telemedicine

(Organised by Medical Computer Society of India)

Sri Ramachandra Medical College and Research Institute (D.U), Madras, August 23-25

Ms. K.M. Sasipriya

—Tele-ophthalmology - Breaking the distance barriers

CME on Intraocular Inflammations

(Organised by Dept of Ophthalmology, Kozhikode Medical College and Kerala State Ophthalmic Society)

September 1

DR. MANOHAR BABU

—Clinical examination in uveitis
—Investigations in uveitis

3rd Annual Conference of Indian Leptospirosis Society

Jawaharlal Institute of Postgraduate Medical Education & Research (JIPMER), Pondicherry, September 21-22

DR. S.R. RATHINAM

—Circular presentation of Leptospiral uveitis- Six years study

Ms. C. GOWRI PRIYA

presented a poster on
—Confirmation of the aetiology of uveitis associated with leptospirosis in humans

Update in Neuro-Ophthalmology

Chennai, October 26-27

DR. G. NATCHIAR

Moderator of the session on The Optic nerve and its disorders

—Traumatic optic neuropathy

17th All India Convention of the Indian Association of Physics Teachers (IAPT)

Saranabasappa College, Karnataka, November 14-16

PROF .V.SRINIVASAN

—Use of sound & light in ophthalmology - In diagnosis and treatment

Cornea 2002

(Organised by Madan Mohan Cornea Society and WHO SEARO) New Delhi, November 23-24

DR. M. SRINIVASAN

Co-convenor for the session on corneal blindness status-Prevalence, pattern



Dr.Ilango,Dr.Thomas Mathew, Mr.Muthuramalingam and Ms.Subbulakshmi at L.V.Prasad Eye Institute,Hyderabad



Dr.M.Srinivasan at the Cornea 2002 conference in New Delhi

& suggestion for data collection.

- Corneal ulceration in South East Asia Region- Findings of a multi country study
- Clinical presentation of viral keratitis

Philippines Academy of Ophthalmology Annual Convention Meeting

Philippines, November 28-30

DR. G. NATCHIAR

- Small incision sutureless cataract surgery
- Learning curve
- Tunnel construction
- When & how to convert

International Symposium on Cataracts: Molecular and Epidemiological aspects

(Organised by the Science Centre of Manipal Academy of Higher Education)

Manipal, December 2-3

DR. REENA CHANDRASHEKHAR

- RNA fingerprinting and differentiated display: A minireview of its role in cataractogenesis

Low vision Awareness Programme

L.V. Prasad Eye Hospital, Hyderabad, Dec 3-8

Dr. K. Ilango and Dr. Thomas Mathew, and refractionists Mr. Muthuramalingam and Ms. Subbulakshmi attended this programme.

Publications

The Pediatric Infect Dis J

Vol: 20; 2001:p. 289-295

- COLES CL, KANUNGO R, RAHMATHULLAH L, THULASIRAJ RD, KATZ J, SANTHOSHAM M, TIELSCH JM.
 —Pneumococcal nasopharyngeal colonization in young South Indian infants

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Vol: 131; 2001:p. 255-261

- COLES CL, RAHMATHULLAH K, KANUNGO R, THULASIRAJ RD, KATZ J, SANTOSHAM M, TIELSCH JM.
 —Vitamin A supplementation at birth delays pneumococcal

Journal of Tamil Nadu Ophthalmic Association

Vol: 42 (4), DEC 2001: p 179-180

- D. GANGA, G. RAMALAKSHMI & PROF. V. SRINIVASAN
 —Phacoemulsification systems- Care and maintenance

Indian Journal of Medical Microbiology 2002

Vol: 20: p. 19-24

- DR. M. JAYAHAR BHARATHI, DR. R. RAMAKRISHNAN, DR. S. VASU, DR. MEENAKSHI
 —Aetiological diagnosis of microbial keratitis in South India-A study of 1618 cases

J Community Eye Health

Vol: 41 (15); 2002

- MURALIKRISHNAN R AND SIVAKUMAR AK.
 —Patients' perspective: An important factor in assessing patient satisfaction. Aravind Model

IOC: Advances in Infectious and Inflammatory Eye Disease

Vol: 42 (1); 2002 Winter: p.71-77

- WHITCHER, JOHN P; SRINIVASAN, MAND UPADHYAY, MADAN P
 —Prevention of corneal ulceration in the developing world

Journal of Tamil Nadu Ophthalmic Association

Vol: 43 (1); MAR 2002: p.9-10

- R BANU REGA, PROF. V. SRINIVASAN
 —Torchlight- 220 Volt mains operated
 p.21-22
 CHANDRA MOHAN, K; VIDHYA ; BIPASHA; USHA KIM
 —Orbital secondaries from thyroid - A rare presentation

- p.23-25
 ANAND PARTHASARATHY; PRAJNA, N VENKATESH AND GOPAL, M R S
 —Ehlers danlos syndrome - An uncommon syndrome with ocular manifestations: a review of 5 cases

- p.26-28
 MATHEN, MINU M; PRAJNA, N VENKATESH; SUBBURAM, P; NATCHIAR, G
 —Neurocysticercosis causing oculomotor nerve palsy

p.29-31

- SHAMIK ANIL AMBATKAR; ANUP CHIRAYATH AND RAMAKRISHNAN, R
 —Pseudotumour cerebri associated with penicillin therapy

British Journal of Ophthalmology

Vol: 86 (5); MAY 2002: p.505-512

- NIRMALAN, PRAVEEN K; THULASIRAJ, R D; MANEKSHA, V; RAHAMATHULLA, RAHEEM; RAMAKRISHNAN, R; PADMAVATHI, A; MUNOZ, S R; ELLWEIN, L B
 —A population based eye survey of older adults in Tirunelveli district of South India: blindness, cataract surgery, and visual outcomes

ARCHIVES

Vol: 120 (5); MAY 2002: p.548-553

- DAN, JACOB A; HONAVAR, SANTOSH G; BELYEA, DAVID A; MANDAL, ANIL K; GARUDADRI, CHANDRASEKHAR; LEVY, BRIAN; RAMAKRISHNAN, RENUKAPPA; KRISHNADAS, RAMASAMY; LIEBERMAN, MARC F; STAMPER, ROBERT L; YARON, ARIEH
 —Enzymatic sclerostomy: pilot human study

Journal of Tamil Nadu Ophthalmic Association

Vol: 43 (2); JUN 2002: p.57-58

- RAVINDRAN, R D
 —Technological transition in cataract surgery - Are we there yet

p.59-60

THULASIRAJ, R D
—Community ophthalmology in the 21st century

p.72-76

MANEKSHA, V; NIRMALAN, PRAVEEN K; RAMAKRISHNAN, R; THULASIRAJ, R D
—A survey of visual impairment and blindness in South India

p.77-79

VIJAYAKUMAR, R; VIJAYALAKSHMI, P
—Morquio syndrome - A case report

p.80-81

RAJASEKHAR; KIM, R AND MORRIS, RODNEY J
—Intraocular cysticercosis and it's management

p.91-92

PROF. V. SRINIVASAN
—Buzzing sound during phaco surgery (Consultation section)

p.109-114

BHARATHI, M JAYAHAR; RAMAKRISHNAN, R; VASU, SAMALA; MEENAKSHI, R; PALANIAPPAN, R
—In-vitro efficacy of antibiotics against bacterial isolates from corneal ulcers

American Journal of Ophthalmology

VOL: 133 (6); JUN 2002: p.773-779

RATHINAM, SIVAKUMAR R; USHA, KIM R AND RAO, NARSING A
—Presumed trematode-induced granulomatous anterior uveitis: A newly

recognized cause of intraocular inflammation in children from South India

Health for the Millions

Vol: 28(3); Aug-Sept 2002: p. 6-8

MURALIKRISHNAN, R; PRADHAN, KEERTI BHUSHAN
—Equity in eye care services p. 19-20

PRADHAN, PREETHI ; ANNAPOORNI, V.
—Analogies for communicating with the patient p.21-23

THULASIRAJ, R D; ARAVIND, S; PRADHAN, KEERTI BHUSHAN
—Spectacles for the millions- a priority of "Vision 2020- The Right to Sight"

Indian Journal of Ophthalmology

Vol: 50 (3); SEP 2002 : p.213-214

PRAJNA, N VENKATESH ET AL. RAO, REMA A; MATHEN, MINU M; PRAJNA, LALITHA; GEORGE, CELINE; SRINIVASAN, M;
—Simultaneous bilateral fungal keratitis caused by different fungi

British Journal of Ophthalmology

Vol: 86 (9); SEP 2002: p.1014-1018

NARENDRAN, V ET AL. JOHN, R K; RAGHURAM, A; RAVINDRAN, R D; NIRMALAN, P K; THULASIRAJ, R D
—Diabetic retinopathy among self reported

diabetics in Southern India: A population based assessment

Tamil Nadu Ophthalmic Association Journal

Vol: 43 (4); DEC 2002: p.200

SRINIVASAN, V; THULASIRAJ, RD
—Ophthalmic instruments - Maintenance protocol p.201-202

SRINIVASAN, M
—Present status of wave front guided LASIK: Eagle vision - A myth or reality

Indian Journal of Ophthalmology

Vol: 50 (4); DEC 2002: p.307-311

VIJAYALAKSHMI, P; KAKKAR, GAURAV; SAMPRATHI, ARUN; BANUSHREE, R
—Ocular manifestations of congenital rubella syndrome in a developing country

Asia Pacific Journal of Ophthalmology

Vol: 14 (1); 2002: p. 32 – 34

S.R.RATHINAM, LALITHA PRAJNA, MINU M.MATHEN, VENKATESH PRAJNA. N, SRINIVASAN M
—Endogenous Nocardial scleral abscess: A case report

Current Opinion in Ophthalmology

Vol: 13; 2002: p. 381 – 385

RATHINAM, SR.
—Ocular leptospirosis

Current topics in Ophthalmology

Eds. A.K. Gupta

RATHINAM, SR.

—Basic concepts on immunology and immunological disorders of the eye

Clinical Practice in Ophthalmology

Eds. Sandeep Saxena

RATHINAM S.R.,

NAMPERUMALSAMY P.

—Inflammatory and infectious disorders of uvea

Highlights of Ophthalmology

Indian edition 2001

RATHINAM S.R.

—Leptospirosis and ocular complications, frequently asked questions.

Journal of Medical Microbiology

GOWRI PRIYA C., BHAVANI K.

RATHINAM SR,

MUTHUKARUPPAN VR

—Identification and evaluation of lipopolysaccharide antigen for serodiagnosis of uveitis associated with leptospirosis

Ophthalmic Epidemiology

Vol: 9 (5) 2002. p 313-324

THULASIRAJ, RD; REDDY,

ARAVIND; SELVARAJ, S;

MUNOZ, SR; ELLWEIN, LB

— The Sivaganga Eye Survey: II Outcomes of cataract surgery

Awards and Accolades



'To this master of the surgeon's art and bringer of light in our darkness, the Pio Manzu Centre is honoured to award the medal of the President of the Italian Republic'



- Dr. G. Venkataswamy (Dr. V) was awarded the '**Medal of the Presidency of the Italian Republic**' by the Pio Manzu International Research Centre at Rimini, Italy on Sunday, October 20, 2002. According to a letter from Michael Gorbachev, Former President of U.S.S.R. & President of Pio Manzu International Research Centre, Dr. V. was chosen for this award, in recognition of his immense efforts in the field of health care and humanitarian work in India.
- Dr. V was conferred the **Life time achievement award** by Tamil Nadu Ophthalmic Association for his contribution to the Art and Science of Ophthalmology.
- Dr. P. Namperumalsamy was conferred '**Distinguished Service to Humanity**' by the TamilNadu Senior Citizens and Pensioners Welfare Association at the II State Conference held on May 27 at Coimbatore.
- Dr. G. Natchiar was conferred the title "**Nethra Darshini**" for reaching the acme of professional excellence in the field of ophthalmology, by the Rotary clubs of Tiruchirappalli and SriRangam. She also received the "Professional Service Award" for her service in eye care delivery from the Inner Wheel Club of Tiruchirappalli on March 8.
- Ms. Arpitha Saravanan received **Amjad Rahi Best Paper Award** for the paper on "Generating corneal epithelium invitro from cadaver limbal rings" at the 11th Annual Meeting of the Indian Eye Research Group (IERG) held at LVPEI, Hyderabad, Jan 19-20.
- Dr. R.D. Ravindran got "**Dr. Sundareswaran Endowment**" at the Indian Medical Association, International Uveitis Study Group meeting, Sydney, April 2002.
- Dr. S.R. Rathinam was honoured as the **Member of IUSG** (International Uveitis Study Group) at Sydney, April 2002.

Partners in Service

Aravind is grateful to all the individuals and the organisations that have continued to be a rich source of support and inspiration for the organisation's sustainable development and growth.

Right from its inception, volunteers have played a vital role in Aravind's sustainable development and growth. Aravind Eye Care System gratefully acknowledges the unstinting support of friends and organisations around the world, by way of human resources, technical support, and donations in kind.

For service delivery, human resource and other developmental activities

- Canadian International Development Agency (CIDA), Canada
- Carl Zeiss, India
- CBM International, Benshiem, Germany
- Combat Blindness Foundation, USA
- International Eye Foundation, Bethesda, USA
- International Federation of Eye Banks, USA
- Light House International, USA
- Lions International, USA
- Orbis International, USA
- Rotary International, USA
- Seva Foundation, USA
- Seva Service Society, Vancouver, Canada
- Sight Savers International, UK
- Zurich Financial Services, Community Trust, UK
- Kuppuswamy Naidu Charity Trust, Coimbatore
- Acumen Fund, USA

For research

- Alcon Pharmaceuticals, Fort Worth, USA
- Allergan Inc., USA
- Department of Ophthalmology, University of Iowa, USA
- Humphrey Instruments, USA
- Department of Science and Technology, Government of India
- Indian Council of Medical Research (ICMR), New Delhi, India
- International Centre for Eye Health, London, UK
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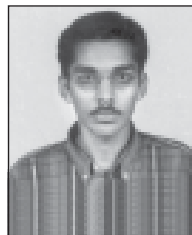


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