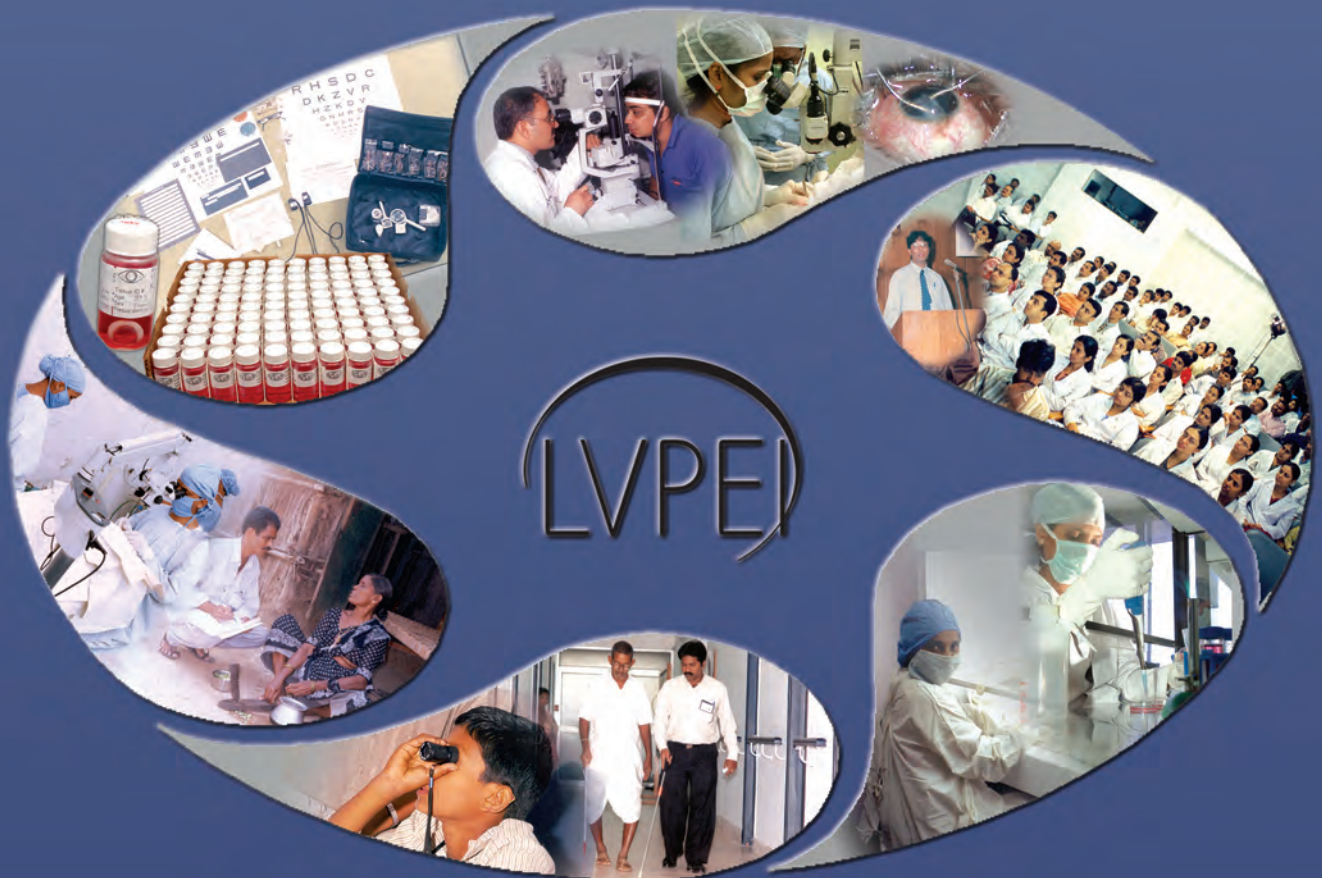


Annual Activity Report April 2004 - March 2005



Committed to excellence and equity in eye care

L V Prasad Eye Institute
Hyderabad, India

Our Mission



The mission of L V Prasad Eye Institute is to be a centre of excellence in eye care services, basic and clinical research into eye diseases and vision-threatening conditions, training, product development, and rehabilitation for those with incurable visual disability, with a focus on extending equitable and efficient eye care services to underserved populations in the developing world.



Untitled 2005
Acrylic on canvas
58" x 44"
painting by
Surya Prakash

L V Prasad Eye Institute

Committed to excellence and equity in eye care

Annual Activity Report
April 2004 - March 2005



**World Health Organization
Collaborating Centre for
Prevention of Blindness**



L V Prasad Eye Institute
Hyderabad, India

L V Prasad Eye Institute is a not-for-profit charitable organization.

Director,
Dr Kallam Anji Reddy
Distinguished Chair of
Ophthalmology

Ravi Thomas

EYE HOSPITAL
Cornea & Anterior Segment

Virender S Sangwan
Prashant Garg
Pravin V Krishna
Somasheila Murthy
Gullapalli N Rao
M S Sridhar
B Ramamurthy
Jayeeta Bose
Himanshu Matalia

Bausch & Lomb
Contact Lens Centre

Prashant Garg
Pravin V Krishna

Laser Refractive
Surgery Centre

M S Sridhar
Prashant Garg
Pravin V Krishna
Somasheila Murthy
B Ramamurthy

VST Centre for
Glaucoma Care

G Chandra Sekhar
Anil K Mandal
Rajul Parikh
Ravi Thomas
A S Dhanraj Rao

Smt Kanuri Santhamma
Retina Vitreous Centre

Taraprasad Das
Anjli Hussain
Nazimul Hussain
Subhadra Jalali
Ajit B Majji
Annie Mathai
Avinash Pathengay
L S Mohan Ram

Ophthalmic Plastic Surgery,
Orbit, Ocular Oncology and
Ocular Prosthesis

Santosh G Honavar
Milind N Naik
Vijay Anand P Reddy
Kuldeep Raizada
D Deepa Rani

Uveitis & Ocular
Immunology

Virender S Sangwan
Somasheila Murthy

Strabismus

B Venkateshwar Rao
Ravi Thomas
Jyoti Matalia
K Ramesha

Neuro-ophthalmology

B Venkateshwar Rao

Jasti V Ramanamma
Children's Eye Care Centre

Anil K Mandal
Santosh G Honavar
Subhadra Jalali
B Ramamurthy
B Venkateshwar Rao
Sushma Tejwani
Ravi Thomas
Jyoti Matalia
K Ramesha

Comprehensive
Ophthalmology

Rohit Khanna
Rahul Kumar Ali
Sushma Tejwani
K Mahesh

Ramayamma International
Eye Bank

Usha Gopinathan
Prashant Garg

Internal Medicine

Sujatha Mathur
Archana Bhargav

VISION REHABILITATION
CENTRES

Meera & L B Deshpande
Centre for Sight
Enhancement and
Dr PRK Prasad Centre for
Rehabilitation of Blind &
Visually Impaired

Sarfaraz Ali Khan
Vijaya K Gothwal
Sharmila Rao
Beula Christy

Optometry

J Ganesh Babu
Devraj Goud
Venkatesh Goud
P Ruby Kala
Ajay Kumar
Anand Kumar
A Uday Kumar
K Vasantha Kumari
Marella Manjula
Ankit Mathur
Jyothsna Naidu
S Prabakaran
L S Mohan Ram
Sumasri Mohan Ram
G Prasad Reddy
G Rekha
Preeji Shyamsunder
K Srinivas
M Srinivas
Garima Tyagi
Jaya Vani
L Venkatesh

EDUCATION CENTRE
Bausch & Lomb School
of Optometry

Coen GA de Jong
M Srinivas

PROF. BRIEN HOLDEN EYE
RESEARCH CENTRE
Director and Distinguished
Chair of Eye Research
D Balasubramanian

Jhaveri Microbiology
Centre

Savitri Sharma
Usha Gopinathan

Saroja A Rao Immunology
Laboratory

Savitri Sharma
Virender S Sangwan

Kallam Anji Reddy Molecular
Genetics Laboratory

Chitra Kannabiran
Subhabrata Chakrabarti
Somasheila Murthy

Ophthalmic Pathology

Geeta K Vemuganti

Sudhakar & Sreekanth Ravi
Stem Cell Biology Laboratory

Geeta K Vemuganti
Virender S Sangwan

INTERNATIONAL CENTRE FOR
ADVANCEMENT OF RURA LEYE
CARE (ICARE)

Praveen K Nirmalan
Rahul Kumar Ali
S Bhattacharya
Sheila Devi
Rohit Khanna
S Krishnaiah
V Rajashekar
N Rishita
S Sarvanan
B R Shamanna
Kovai Vilas
Jachin David Williams

Administration

Vijaya L Ramam
Sam Balasundaram
Joji Prasad
M Srinivasa Rao
P Sridevi

LV Prasad Eye Institute

Annual Activity Report - April 2004 to March 2005

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Foreword



Dear friends,

It's hard to believe that a whole year has passed since 04-04-04. My first twelve months at LVPEI have been exciting, demanding and challenging, but entirely satisfying and often enjoyable.

Patient care services have been extended at the hospital and, in the rural areas, we are reaching out to many more. The Evening and Sunday Clinics have enabled us to extend eye care services to the working community. Two dedicated Emergency Rooms have helped us cut the waiting time for people requiring immediate attention.

Our vision and rehabilitation services are now high-tech. The IT resource centre offers training in voice-enabled, screen-reading software to people with low vision and incurable blindness. We have received overwhelming support from Indians living abroad and also international charities to set up a children's library, with books in large print and in Braille.

On the education front we celebrated the first convocation of our Bausch & Lomb School of Optometry – ten young women and men received their BS Degree in Optometry from the Birla Institute of Technology and Science, a well recognised deemed university in India. We continue to train all levels of eye care professionals through our sponsored fellowship programmes, sans all borders – teams from Pakistan came to train in paediatric ophthalmology. A young ophthalmologist from Paraguay completed a corneal fellowship, leaving with the resolve to implement LVPEI's multi-tiered model of eye care in his land.

The last year has seen publications in top tier journals as well as recognition for our researchers: of special note, our work in stem cell research has the world of science looking at us through a microscope. All these efforts led to the first US – Indo collaborative research workshop being held at the Institute under the aegis of the Association for Research in Vision and Ophthalmology (ARVO) and the National Eye Institute, USA. It brought together researchers in ophthalmology from the United States and India in the hope of establishing future bilateral research programmes in vision sciences.

Community health interventions through our pyramidal model of satellites and vision centres are on track. The setting up of vision centres around the secondary centres continues at a fast pace. We believe that eye care should be an integral part of overall development; one such project that was initiated, with assistance from ORBIS, by our International Centre for the Advancement of Rural Eye Care (ICARE) is 'Providing Eye Care through Empowered People'. Through a health financing scheme this project will empower people to take responsibility for their eye care needs.

The year saw us extend our philosophy outside the state of Andhra Pradesh. We helped set up a tertiary care centre in Raipur, in central India; the entire team was trained at the Institute. An exciting new project directly under LVPEI, supported by Operation Eyesight Universal is the Bhubaneswar Eye Institute, a tertiary care centre in Orissa. Ultimately both these tertiary centres will have the same rural components as LVPEI and should be valuable additions to these underserved regions.

LVPEI owes a lot to its supporters, one of whom was Mr L D Jhaveri, the pearl merchant, who generously supported our microbiology centre. It is with great sadness that we inform you of his demise on 27 February 2005. With his passing, we have lost a great humanitarian and good friend of the Institute.

Old friends continued to repose confidence in us. The Ravi brothers have committed to the provision of eye care to their native Prakasam district in Andhra Pradesh where we have already established a secondary centre. The Deshpandes and the Gottipallis have expanded their support to the Vision Rehabilitation Centres. New friends have stepped in to help: the Church of the Latter Day Saints Charities helped set up the computer resource centre and donated the Braille printer. The Kanorias as well as the Davars and Unvalas helped establish the much needed emergency clinics. Finally, long-time friend, chairman of the HERF board Dr Kallam Anji Reddy has taken the lead and made the first pledge towards a corpus fund to ensure continuation of the mission he believes in.

LVPEI is grateful to our trustees who spare their valuable time to advise us. I take this opportunity to thank all of them, and congratulate those who received honours: Dr Kiran Majumdar-Shaw and Dr Srinath Reddy for the Padma Bhushan. Dr Srinath Reddy also became the first Indian to be selected for membership of the Institute Of Medicine (IOM) of the United States National Academies. Dr Valiathan, the previous chairman of our Board, was awarded the Padma Vibhushan.

People from diverse backgrounds visit LVPEI. Naturally we are encouraged by their comments. The most perceptive (and gratifying) comment this year came from a person representing a European research foundation. As part of his work he had visited several hospitals across the world. "I have seen some very good eye hospitals", he said. "Here, I see vision."

While we realise that there's still miles to go, it has certainly been a good year.



Ravi
Prof Ravi Thomas MD

A year of achievements



Mr Ulrich Krauss presents the Carl Zeiss Award of Excellence to Prof Ravi Thomas

LVPEI receives Carl Zeiss Award of Excellence

L V Prasad Eye Institute was awarded the Carl Zeiss Foundation Grant for 2004 in recognition of its initiatives and contribution to eye care in India and the developing world. The award is given annually for advancement of science and technology, social and cultural initiatives, and outstanding contributions toward social initiatives (such as blindness prevention). This is the first such award to be given in India. Among the guests at the ceremony were Mr Ulrich Krauss, President and CEO of Carl Zeiss Meditec, Germany, Mr V Srinivasan, President and CEO, Carl Zeiss SE, Australia, and Mr Ven Raman, Managing Director, Carl Zeiss India, Bangalore.

Dr Anji Reddy initiates LVPEI Endowment Fund

The Board of Trustees of the Hyderabad Eye Institute (HEI) and the Hyderabad Eye Research Fund (HERF) have formalized the need to build an Endowment Fund with a target of Rs 100 crore over a period of 10 years. Dr K Anji Reddy, Chairman of Dr Reddy's Laboratories and Chairman of Board of Trustees, HERF, has pledged Rs 10 crore, at the rate of Rs 1 crore every year. He presented the first cheque for Rs 1 crore to Dr G N Rao in March 2005. This concept is in line with the tradition of many globally reputed institutions.



Dr K Anji Reddy hands the cheque to Dr G N Rao

Sudhakar and Sreekanth Ravi extend support

Sudhakar and Sreekanth Ravi of California, USA, made another commitment towards continuing their support to the Institute's activities. In addition to stem cell research, they will support the setting up of 10 Vision Centres attached to the Karamchedu satellite centre in Prakasam district of Andhra Pradesh. Within two years Prakasam will become a model district for eye care delivery in the State.

First Convocation at Bausch & Lomb School of Optometry

The Bausch and Lomb School of Optometry at our Kismatpur campus held a graduation ceremony for the first batch of optometry students on November 28, 2004. Ten students received their Bachelor's degree while nine were awarded diplomas in ophthalmic techniques. The students received their certificates from Prof S Venkateswaran, Vice Chancellor of Birla Institute of Technology and Science (BITS), Pilani, to which the B&L School is affiliated. The school follows a multi-tiered approach, offering courses for vision technicians, ophthalmic technicians, and optometrists.

The Chief Guest was Dr Kiran Mazumdar-Shaw, CMD, Biocon Limited. Among the other distinguished guests were Mr John Loughlin, President, Bausch & Lomb, Asia-Pacific; Prof Brien Holden of the University of New South Wales, Australia; and Professor Desmond Fonn of the University of Waterloo, Canada.



Dr Kiran Mazumdar-Shaw, Prof Coen de Jong, Prof Desmond Fonn, Dr G N Rao, Prof S Venkateswaran, Prof Brien Holden and Prof Ravi Thomas at the convocation



Dr Mandal receiving the Shanti Swarup Bhatnagar Prize from Prime Minister Shri Manmohan Singh in New Delhi

Dr Mandal receives the Shanti Swarup Bhatnagar Prize

Dr Anil K Mandal, Head, Pediatric Ophthalmology, received the Shanti Swarup Bhatnagar Prize for 2003 from Prime Minister Shri Manmohan Singh at New Delhi, on September 13, 2004. The citation recognizes Dr Mandal's achievement in developing an alternative and innovative mode of surgical treatment for pediatric glaucoma and contributions to a molecular genetic analysis of primary congenital glaucoma. He is the first clinical ophthalmologist ever to receive this award.

Recognition for LVPEI faculty at AIOS

Dr Taraprasad Das, Head, Retina Vitreous Services, was unanimously elected Vice President of the All India Ophthalmological Society (AIOS) at its 63rd meeting at Bhubaneswar from January 13–16, 2005. Dr Ajit B Majji, Consultant, Retina Vitreous Services, was elected Member of the Scientific Committee, AIOS.

Padma Bhushan/Padma Vibhushan for HERF Board Members

On Republic Day this year, President of India, Dr A P J Abdul Kalam bestowed the Padma Bhushan on two of our trustees: Prof K Srinath Reddy, Professor & Head, Department of Cardiology, All India Institute of Medical Sciences, and Dr Kiran Majumdar-Shaw. Our former trustee, Mr K Varaprasad Reddy, Managing Director, Shantha Biotech Limited, was awarded the Padma Bhushan in Science and Engineering.

Prof M V S Valiathan, former Chairman of HERF and Honorary Adviser, Manipal Academy of Higher Education, received the Padma Vibhushan.

Honour for Prof Srinath Reddy

Prof Srinath Reddy was elected Foreign Associate Member of the Institute Of Medicine (IOM) of the US National Science Academy. This is the first time that an Indian has been elected among the 70 foreign associates of the IOM.

Award for Dr Jayaprakash Narayan

Dr Jayaprakash Narayan, HEI trustee and National Coordinator of Lok Satta and member of National Advisory Council, received the Bharat Asmita Jana-Jagaran Shreshta Award for best mass media person engaged in public awakening. The awards are instituted by the MIT School of Management, Pune.

LVPEI loses two good friends

Mr Lakshmidhand D Jhaveri, exporter of diamonds and pearls based in Kobe, Japan, was a great philanthropist and admirer of LVPEI. In recognition of his long-term support the microbiology department was named the Jhaveri Microbiology Centre. With Mr Jhaveri's demise in January 2005, we have lost a good friend of the Institute.

Prof Lalit P Agarwal, founder of the Dr Rajendra Prasad Centre for Ophthalmic Sciences at the All India Institute of Medical Sciences, New Delhi, passed away on September 24, 2004. Dr Agarwal was a teacher and mentor to many of our faculty members and a constant source of inspiration to Dr Gullapalli N Rao. His death is a great loss to ophthalmology.



World document on low vision formalized

World leaders and experts in low vision care and research have been meeting for several years to formulate a road map that would bring about greater awareness of low vision and ensure excellence in service delivery. An assembly of 25 experts met near Oslo, Norway, during October 17-21, 2004, and finalized a world document, 'Towards a reduction in the global impact of low vision.' The salient points of the document are: a framework for low vision service delivery, a research agenda for low vision, and a call to action.

Dr Sarfaraz Ali Khan, Director, Vision Rehabilitation Services, participated in the workshop, sponsored by Lighthouse International and the International Society for Low Vision Research and Rehabilitation (ISLRR), with support from the Stockholm Institute of Education and Oslo University.



A group photo at the US-Indo workshop

US-Indo Workshop on Collaborative Research

The Institute hosted a US-Indo Workshop on Collaborative Research from February 9–12, 2005, organized by the Association for Research in Vision and Ophthalmology (ARVO), United States, and funded by the National Eye Institute, USA. The workshop aimed at forming higher level collaborations in eye research between scientists from both nations. Eminent scientists from Harvard, Johns Hopkins, National Institutes of Health, University of California, Los Angeles; University of Wisconsin; Cleveland Clinic; University of Iowa; Washington University; as well as those from India's leading eye institutes, participated in the workshop. This workshop is hailed as a milestone in US-India relations.

Dr G N Rao assumes charge as Head of IAPB

Dr Gullapalli N Rao, Distinguished Chair of Eye Health at LVPEI, assumed charge as Chairman of Board of Trustees, President, and Chief Executive Officer of the International Agency for the Prevention of Blindness (IAPB), at its Seventh General Assembly at Dubai from September 20-24, 2004. He is the first person to hold all these positions simultaneously in the organization's 30-year history.

New Trustees for Hyderabad Eye Research Foundation

L V Prasad Eye Institute is privileged to have two new trustees on the Governing Body of the Hyderabad Eye Research Foundation (HERF): Dr F C Kohli and Dr Kiran Mazumdar-Shaw. Dr Kohli, Chairman Emeritus of Tata Consultancy Services, is hailed as the father of the Indian software industry. Dr Mazumdar-Shaw is Chairman and Managing Director of Biocon Limited, Bangalore, a globally acclaimed integrated biopharmaceutical company with strategic research initiatives.

First Alumnus on HEI Board

As part of an initiative to involve LVPEI alumni in the Institute's development, Dr Sangeeta Wagh became the first alumnus to be appointed on the Board of Trustees

of the Hyderabad Eye Institute (HEI). One of our cornea fellowship alumni, Dr Wagh is the founder of Dr Sandeep Wagh Eye Centre at Pune.

University of Rochester Eye Institute opened

The University of Rochester Eye Institute was inaugurated on June 4, 2004, at an informal ceremony. Dr Gullapalli N Rao presented a commemorative plaque to the University of Rochester Eye Institute "in recognition of its significance to eye care and the restoration of sight". The citation recalled the excellent collaboration between LVPEI and the University of Rochester. Dr Rao was also the keynote speaker at the gala reception.

Foundation stone laid for BEI

The foundation stone for LVPEI's new tertiary eye care centre for Orissa was laid by Chief Minister of Orissa Naveen Patnaik on January 16, 2005, at Patia, Bhubaneswar. The Bhubaneswar Eye Institute (BEI) will commence operations in July 2006, with Dr Taraprasad Das at the helm.



Mr Naveen Patnaik (left), Mr Biswabhusan Harichandan, Orissa State Minister of Law and Rural Development, and Dr Taraprasad Das at the ceremony

Ranbaxy Science Foundation Symposium

The XI Annual Ranbaxy Science Foundation Symposium on 'Stem Cell Research – from Bench to Bedside' was held on March 5, 2005. The plenary lectures were delivered by Dr Paul Simmons, MacCallum Research Institute, Melbourne, Australia, and Dr Graziella Pellegrini, Giovanni e Paolo Hospital, Venice, Italy.

Dr Rustom Ranji Memorial Lecture

Dr Mahtab S Bamji delivered the Dr Rustom Ranji Memorial Lecture on October 13, 2004, on the causes of malnutrition and its effects on the growth of children. The annual event was organized by the Rotary Club of Hyderabad as homage to the late Dr Rustom Ranji, ophthalmologist of repute and an active Rotarian. Dr Mahtab Bamji, Emeritus Scientist, is co-founder of Dangoria Charitable Trust (DCT), and was Director Grade Scientist at the National Institute of Nutrition, Hyderabad.

Dr Syamala Bhaskaran guest lecture

The ninth Dr Syamala Bhaskaran guest lecture was delivered by Prof Suresh R Chandra, University of Wisconsin Medical School, Madison, Wisconsin, USA, on September 30, 2004. He spoke on 'The Aging Eye and Nutrition'.



Dr Mahtab S Bamji delivering the Dr Rustom Ranji Lecture



Dr K Bhaskaran and Dr Syamala Bhaskaran felicitate Prof Suresh Chandra



A volunteer with children at the World Sight Day exhibition

World Sight Day

The Institute organized a multi-faceted public awareness program on World Sight Day, October 14-15, 2004, at Vidyaranya High School, Hyderabad. The activities included a poster gallery on eye diseases and eye health; distribution of public information leaflets; free vision screening for all visitors; display of low vision devices and information on eye donation. Visually impaired patient volunteers demonstrated the special computer software for the blind. Posters by schoolchildren were displayed.



Guest of honor Ms Shanta Rameshwar Rao at the World Sight Day exhibition

Alumni News

LVPEI Alumni annual meeting

The LVPEI alumni annual meeting was held on October 17, 2004. The keynote speaker Dr Jayaprakash Narayan, convener, Lok Satta, spoke on 'Health, Medical Care and Accountability.' He asserted that the medical establishment needed to undergo a radical transformation so that practice becomes demand driven.

Dr Gullapalli N Rao explained how private practice could incorporate a charitable component and yet maintain high standards, based on LVPEI's experience. The meeting also had focused sessions on practice development and medico-legal issues in practice.

Alumni return as guest faculty

It has been decided that two alumni members would be invited to L V Prasad Eye Institute, twice a year, as guest faculty for a practice development seminar. Alumni who were already practicing would allow the current/outgoing fellows to spend some time with them to help them learn how to run a practice.

The first batch comprising Dr Devinder Sood, former glaucoma fellow and Dr Poorna Chander Tejaswi, former comprehensive ophthalmology fellow were at the Institute during March 19-20, 2005.

Anterior Segment Update at Lucknow

Precision Eye Care, a centre of excellence in anterior segment ophthalmology at Lucknow, was set up by Dr Sunil Singh, former cornea fellow. The centre completed 10 years of functioning in January 2005. To commemorate the event, Dr Sunil Singh organized an Anterior Segment Update on March 13, 2005, attended by 80 eminent ophthalmologists from Lucknow, Kanpur, Gorakhpur, Bharuch, Jaunpur, and Banaras. The Update included talks by LVPEI faculty members Dr Gullapalli N Rao, Dr G Chandrasekhar, Dr Virender S Sangwan, and Dr Prashant Garg.

TESS continues to grow

A quality eye care centre, The Eye Super Specialties (TESS), was set up in Ghatkopar, Mumbai, by two former fellows Urmi and Nikunj Shah in October 2003. Nikunj did his fellowship in retina vitreous, while Urmi's specialization was in cornea and anterior segment.

The annual activities of TESS included school screening camps where 418 children in the preschool age group



Dr G Chandra Sekhar addressing the alumni group

were examined. About one-third of them were found to have refractive errors, while some were diagnosed with amblyopia or squint.

In a novel approach 700 people from a particular community were examined at TESS, using high quality basic and advanced diagnostics, instead of at makeshift screening camps. TESS has now expanded its services with new specialists in orbit and oculoplastics, as well as in squint and pediatrics.

ROP program in Orissa

Dr Navnit Gupta, former pediatric ophthalmology fellow, started a Retinopathy of Prematurity (ROP) screening program in the NICU of Sardar Vallabhbhai Institute of Post-graduate Pediatrics in Cuttack in April 2004. In March 2005 doctors performed cryopexy on a new-born baby. This was the first time that a cryopexy for ROP had been done in Orissa. This is an ongoing program.

Highlights

- ◆ Dr Gaurav Y Shah (former retina fellow) has joined as Post Doctoral Retina Research Associate at the University of Florida, Jacksonville, USA.
- ◆ Dr Thomas Cherian (former retina fellow), Little Flower Hospital, Angamally, Kerala, was elected Editor of the Kerala Journal of Ophthalmology.
- ◆ Drs Vasudha (former comprehensive ophthalmology fellow) and Ravikrishna Nrusimhadevara were blessed with a baby boy in August 2004.
- ◆ Dr Raman Mittal (former ophthalmic plastic surgery fellow) and Dr Suryasath Rath (comprehensive ophthalmology fellow) were selected for the Rs 5000 grant for attending the All India Ophthalmological Society (AIOS) meet this year. The grant was sponsored for outgoing LVPEI Alumni by Dr Sunil Singh and Dr Prateep Vyas this year.

All former long-term fellows of LVPEI are welcome to join the Alumni Association. Email: alumni@lvpei.org

Hospital

The hospital continues to be the focal point of all the Institute's activities, catering to the eye care needs of a wide cross-section of people from Andhra Pradesh and the rest of India. This year we also had patients coming from countries as far away as Colombia and Japan. Patient care at LVPEI is based on the principles of efficiency, equity, and excellence, with the philosophy of providing the best care possible to every patient in a kind, caring and compassionate manner, regardless of the ability to pay. This has translated in recent years into looking for innovative pricing models, which has led to our multi-tiered payment system, and to searching for cost-effective management approaches tailored to meet local requirements and constraints.

To address the continuing problem of corneal blindness our eye bank has been working at an ever-increasing pace to enhance the country's eye banking system through training, research and advocacy. Each of our subspecialty areas – cornea and anterior segment, glaucoma, retina vitreous, ophthalmic plastic surgery and ocular oncology, neuro-ophthalmology and ocular immunology – is constantly refreshed and renewed through interaction with professionals from around the globe and through our own intensive study and engagement with patients. The generosity of institutional, corporate and individual donors helps us offer services free of cost to those most in need, and this year too renewed our faith in such philanthropy.

This year saw the expansion of our services to include two Emergency Rooms open round-the-clock and Evening and Sunday outpatient clinics for routine refraction services and prescription of spectacles. Cataract surgery is still the single most important cause of remediable visual impairment, as is reflected in our surgical care statistics. However, other areas such as children's eye care, particularly pediatric ocular tumours, and ocular trauma in occupational contexts, are areas of increasing attention. This is why stem cell research for us is more than just an exciting academic or laboratory exercise; it represents a very real solution for a very real problem that we encounter in our clinics.

Focusing our efforts to serve the needs of specific groups of patients – such as children, the elderly, or the rural poor – allows us to find solutions that meet these needs. Continual upgrading of hospital facilities and know-how ensures that patients receive state-of-the-art care comparable to the best anywhere in the world.

Patients from all over the world and across India



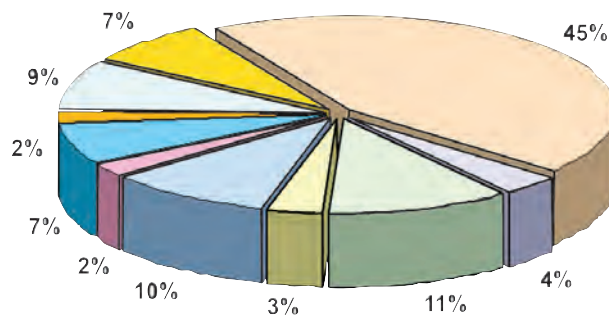
Performance Statistics

Services	Paying	Non-paying	Total
Outpatient visits	1,40,566	51,423	1,91,989
Surgical procedures	14,071	10,148	24,219

Highlights

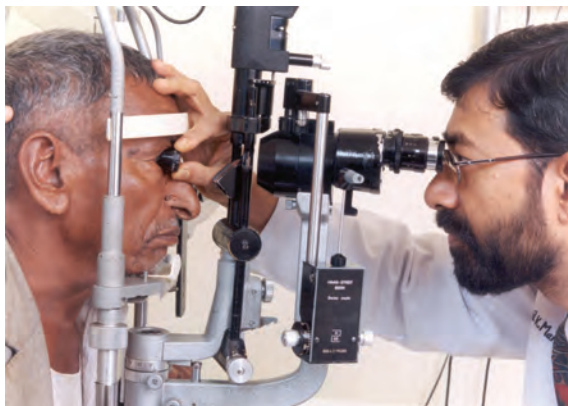
We set up two Emergency Rooms with round-the-clock services. Evening and Sunday Clinics were started for routine refraction services and prescription of spectacles.

Analysis of surgical procedures



Cataract	10,784
Corneal transplantation	869
Other corneal procedures	2,708
Glaucoma	754
Retina	2,438
Squint	556
Plastic surgery	1,643
LASIK	529
EUA*	2,133
Others	1,805

*EUA: Examination and treatment of children under anesthesia



A patient undergoing a slit lamp examination



A child undergoes a B scan

Ramayamma International Eye Bank

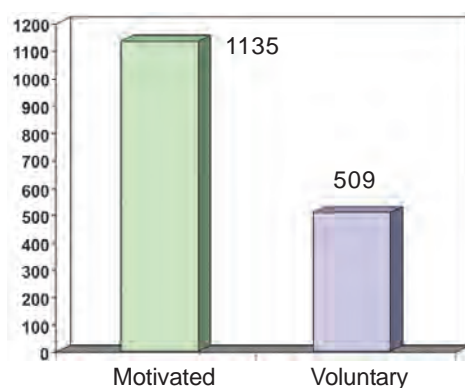
“That two blind people will be helped to see the world in all its colours is a matter of great satisfaction to us – a thing which was beyond our capacity but became possible with the help of modern science and technology through you”. (An eye donor’s relative)

Corneas collected (local & other eye banks) 1644 + 697 = 2341	Corneal transplants performed at LVPEI 869
Corneas given to ophthalmologists outside the Institute 295	Corneal tissues used for research & training 1177

Community Eye Banking Program

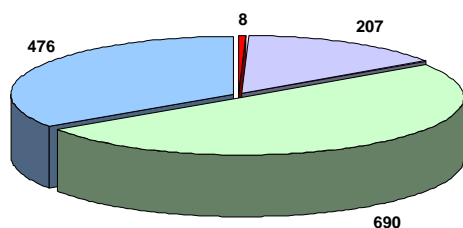
We provided 295 donor corneas to corneal surgeons outside LVPEI – within and outside Andhra Pradesh, as part of our community eye banking program.

Hospital Cornea Retrieval Program – 1644



The Hospital Cornea Retrieval Program is supported by the Lions Club of Hyderabad, Majestic; ORBIS International, USA; and the Eye Bank Association of India. This program enabled us to procure 1,135 donor corneas through the motivational approach in the following hospitals in Hyderabad: Nizam’s Institute of Medical Sciences, CARE Hospitals, and Osmania General Hospital.

Tissues received from affiliate centres



- RIEB affiliate centres at Suryapet, Nidadavole and Tanuku
- EBCRC: Eye Bank Coordination & Research Centre (eyes received only for practice)
- Other Eye Banks
- Northwest Lions Eye Bank, Seattle, WA

Affiliated Eye Banks in Andhra Pradesh

Khammam District Police Eye Bank, Khammam; Lions Club of Kamareddy, Kamareddy; Smt. Rajeshwari Ramakrishna Lions Eye Hospital, Nidadavole; Sadhuram Eye Hospital, Hyderabad; The Khammam Eye Bank, Khammam; Vasavi Club of Bibipet, Bibipet; Regional Eye Hospital, Warangal; Mullapudi Venkatrayudu Eye Center, Tanuku; Smt Rajeshwari Ramakrishna Lions Eye Hospital, Palakol; Lions Club of Suryapet Eye Hospital, Suryapet; Ongole Eye Bank, Ongole; Sudarshini Eye Hospital, Guntur; Vasavi Club of Nizamabad, Nizamabad; Jaya Hospitals, Warangal; Chiranjeevi Praja Seva Samathi, Siddipet; Ajay Jyothi Free Rural Eye Hospital Trust, Nalgonda; Kakatiya Eye Clinic, Mahaboobnagar; Rajiv Gandhi Superspecialty Hospital, Raichur; District Hospital, Nandyal; District Blindness Control Society, Anantapur; Sri Sai Rupa Netralaya, Repalle; Lions Club of Ramayampet, Medak; Lions Club of Bhadrachalam, Bhadrachalam; Supraja Seva Samiti, Karimnagar; Lions Eye Hospital, Karimnagar; Lions Club of Bodhan, Bodhan; Vasavi Eye Hospital, Nizamabad; Lions Club of Khammam, Khammam; District Hospital, Nandyal; Sarojini Devi Eye Hospital, Hyderabad; NETRA The Eye Bank, Visakhapatnam; Lions Club of Karimnagar, Karimnagar; Mother Teresa Swachanda Seva Samathi, Kamareddy; Lions Club of Nizamabad, Nizamabad; Govt. Regional Eye Hospital, Kurnool; Renuka Netralayam, Guntur.

Programs under the ORBIS-ESI-LVPEI project

Training

Training was provided to 14 eye bank technicians, 16 eye donation counsellors, 33 ophthalmologists, and 10 eye bank managers under the ORBIS International, USA, Eye Sight International (ESI), Canada, and the Eye Bank Association of India project.

Zonal Workshop

The L V Prasad Eye Institute, in collaboration with ORBIS and ESI, organized a one-day workshop 'Indian Eye Banking Education Program' at Nagpur on April 10, 2004. The workshop was also held in Lucknow on August 29, 2004, and in Kochi on November 24, 2004. The focus was on the basics and advances in eye banking, quality assurance, community participation, public awareness, and the Hospital Cornea Retrieval Program. Over 70 participants from all walks of life participated in each workshop.

Hospital Based Program

The Hospital Based Program (HBP), organised at LVPEI during December 6-10, 2004, focused on surgical skills transfer. In addition to senior outgoing cornea fellows at LVPEI, 47 ophthalmologists from various hospitals (private and government) in Andhra Pradesh also participated in the program. Dr Richard Casey, Associate Professor of Clinical Ophthalmology and Chief, Ophthalmology Department, Charles R Drew University of Medicine and Science, Los Angeles, USA, was the voluntary faculty. The program was a great success in terms of understanding new technologies for the diagnosis and treatment of anterior segment disorders.

Gift of Sight Workshop

The Institute, under the aegis of ORBIS International and Eye Sight International, organized an interactive 'Penetrating Keratoplasty (PK) Patient workshop' on September 20, 2004, to discuss issues related to eye donation, corneal transplantation and post-surgical care. Recipients of corneal transplants, as well as relatives of donors who had made the Gift of Sight, attended the workshop.

The LVPEI faculty gave an overview of the problem of corneal blindness, and emphasized the need for stringent post-surgical care to minimize the risk of rejection. The talks were followed by interaction between participants and faculty, with the donors expressing their satisfaction at having enabled a blind person to gain sight. A participant who had donated his father's eyes said, "We feel as if our father is still alive with us". Among the corneal transplant recipients was 12-year-old Arshiya Begum, five-year-old Sana Fathima, and engineering student Kontham Abinay.

Research

The RIEB has undertaken a study in collaboration with the Bristol Eye Bank, UK, and Eye Sight International, under the ORBIS – ESI – LVPEI project on Eye Banking & Corneal Transplantation to explore the possibility of increasing the donor pool. In the study, the issue of safety of corneas received for transplantation from septicemic and ventilator dependent donors will be scientifically addressed employing the Organ Culture technique. Corneas procured from 38 donors were subjected to investigation so far.

Give the Gift of Sight

As one light goes out...
... Let another shine on

Do you know that...
... 2 million Indians suffer from corneal blindness?
... they can see again through a corneal transplant?

The cornea is a transparent tissue that covers the inner surface of the eye. As long as the cornea is clear, light can pass through it and the person can see. When a cornea is damaged, it leads to corneal blindness. The only treatment is a corneal transplant or replacement of the damaged cornea with a healthy cornea from a deceased donor's eye.

- Eyes can be donated ONLY AFTER a person's death.
- The cornea is retrieved at home or hospital within 6-8 hours of death.
- Only the outer tissue is removed, not the whole eye; there is no visible disfigurement.
- The procedure takes only 20 minutes.
- One donor can give sight to two blind persons.

Whether you have pledged your eyes or not, it is necessary that your family gives consent for the eye donation after death. Share your wish to give the Gift of Sight with your family.

Call the Eye Bank to make an eye donation!
Ramayamma International Eye Bank, L V Prasad Eye Institute
Tel. 1919 (Toll free); 2394 8266 (direct); 2354 8267/2360 8262 (24 hrs)

(The poster was made possible by a grant from ORBIS International, USA.)

Eye Donation Fortnight

RIEB observed the 19th National Eye Donation Fortnight (EDF) between August 25 and September 8, 2004. Public awareness programs were held at different hospitals in Hyderabad, namely the Nizam's Institute of Medical Sciences, CARE Hospitals, Medwin Hospitals, Apollo Hospitals, and Yashoda Hospitals. Posters were displayed at important locations, and leaflets on eye donation were distributed to the general public.

The Eye Donation Fortnight activities were supported by ORBIS International.

Jasti V Ramanamma Children's Eye Care Centre

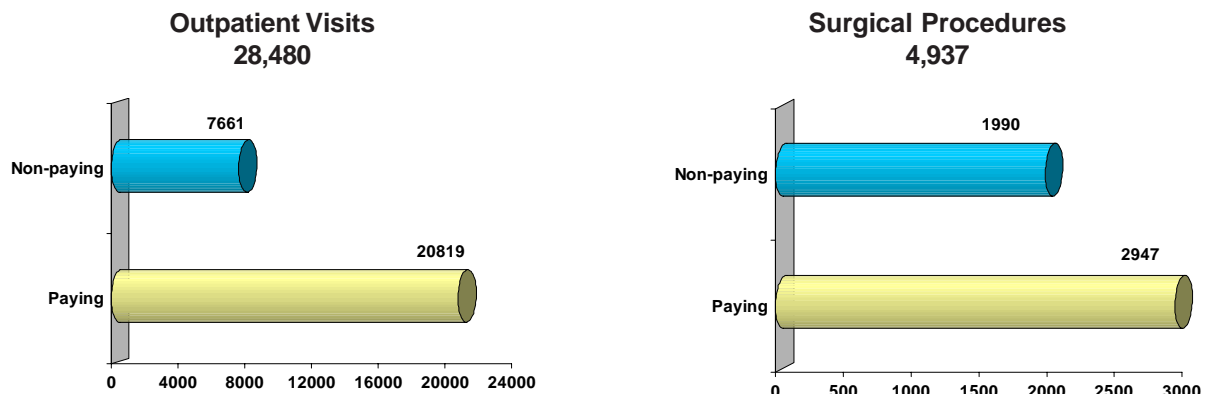
Population-based studies in the state of Andhra Pradesh indicate that one out of every 1,000 children is blind among the combined rural and urban population. Although the rate of blindness in children is lower than in older people, they live eight times more number of years with blindness than do older people. Therefore, the socioeconomic burden of blindness in children is considerable.

Jasti V Ramanamma Children's Eye Care Centre (CECC), set up in 1986, was the first dedicated centre of its kind to be part of an eye institute outside the western world. CECC has state-of-the-art equipment that enables ophthalmologists to examine and treat children, including newborn babies, safely under general anaesthesia. The children eye care centre was also supported by Sight Savers International of United Kingdom.



In the past 17 years the Institute has examined and treated children from all over India, as well as from many other countries. The expertise in diagnosing and treating childhood blindness covers all subspecialties of the eye: childhood cataract, corneal diseases, congenital glaucoma, retinopathy of prematurity and other retinal diseases, strabismus, ocular tumors and related problems.

Performance Statistics



Children's Eye Cancer Centre

The Children's Eye Cancer Centre, a tertiary referral center, was set up in January 2004 with support from Sight Savers International, UK. The center addresses the management needs of children affected by cancers of the eye and related structures, which necessitates an extremely specialized team approach.

LVPEI is the only eye hospital in India where oculistry services are integrated with the Ophthalmic Plastic Surgery division. The Ocular Prosthesis Clinic makes customized artificial eyes for patients suffering from tumors, trauma or infections, who have had their eye removed, partially or totally. An artificial eye can also be fitted over a shrunken, sightless eye for cosmetic purposes.

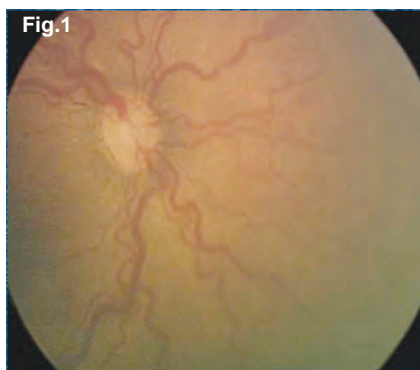
Retinopathy of Prematurity (ROP)

Sight Savers International has provided a substantial grant for the control of childhood blindness, focussing on retinopathy of prematurity (2003-2005). Under the grant we have set up 12 ROP management centers in hospitals across India, nine of them in Andhra Pradesh.

Timely treatment preserves baby's vision

Ayesha Begum brought her baby to L V Prasad Eye Institute in 2004 when she was just 45 days old. Premature babies with low birth weight are at great risk of having eye problems, as their retina is not fully developed at birth. The baby was referred to the Retinopathy of Prematurity (ROP) services. The eyes seemed normal and the parents expected it to be a simple eye check-up. But after extensive evaluation, including examination under anesthesia, doctors discovered a severe threshold of ROP in both eyes.

To convince the parents that the baby had a serious vision-threatening condition, fundus photographs were taken with a digital camera called RetCam that can take photographs of such tiny eyes without the need for sedation (Fig. 1). The parents immediately understood that there was something wrong and consented to laser treatment. Two weeks after multiple sessions of treatment with a diode laser, the left eye had healed completely. However, the right eye continued to show progression of ROP. An elevation had started to develop in the peripheral part of the eye that was more than 6 clock hours in circumference. This was a very dangerous situation and called for a fine microsurgical procedure, lens sparing vitrectomy.



Right eye at presentation showing abnormally dilated and tortuous blood vessels of the retina in Zone I, carrying a high risk of blindness if left untreated.



Ridge elevation despite laser treatment. High risk of visual impairment without surgery, but risk associated with anesthesia and surgery was also critical for decision making.



Completely regressed ROP one month later: healed laser marks, normal size blood vessels and healthy central macular area in the retina hold promise of a very good visual status.

The decision was not easy, there were several risks: from anesthesia due to low birth weight and prematurity, risk of cataract, retinal detachment, high refractive error, bleeding, infection, etc. Again, RetCam photographs came to the rescue, helping the parents to see for themselves the elevation inside the eye (Fig. 2) and understand the gravity of the situation. A team of skilled professionals interacted with the parents, providing support for the surgery; the team included a pediatrician, anesthetist, ROP trained retinal surgeon, pediatric nurses and a social worker.

One month after a very challenging surgery, the ROP had completely regressed (Fig. 3). The mother reported that the baby was looking and smiling back at her! There was joy all around, amongst the ROP team and the parents. The child had come back from the brink of a lifetime of blindness to enjoy a lifetime of vision. This gift of sight was a team effort in which correct timing, technology (including infrastructure and facilities), and surgical skills enabled the professionals to handle a critical situation.

The RetCam and portable diode laser for use in such small babies was facilitated by a generous grant from our supporters, Sight Savers International, UK.

ROP program

Babies screened 700

Treated with laser 160

Surgeries 49

Ophthalmic Plastic Surgery, Orbit & Ocular Oncology

Ocular Prosthesis Clinic

A precious life saved

Perhaps one of the worst nightmares for a parent would be to discover that their firstborn baby cannot see. But they can derive solace from the fact that their child's life was saved.

Little Rakshita was four months old when her parents noticed that her eyes seemed yellow and discoloured. A local ophthalmologist in Bangalore expressed his inability to help and suggested that they seek more specialized treatment.



Dinesh Patel and his wife did not realize the gravity of the situation and it was several months later that they brought her to L V Prasad Eye Institute. The Ocular Oncology specialist discovered that the child had retinoblastoma in both her eyes. A hereditary malignant tumor of the retina, the disease is transmitted as a dominant trait and occurs chiefly among infants.

Unfortunately, it was too late to save her vision. A CT scan and bone marrow biopsy indicated that the child's life was at risk if the tumor (and the eyes) were not removed. The parents were reluctant to opt for surgery, fearing that it would mar the baby's appearance. But a visit to the ophthalmology services convinced them the child would look 'normal', with the help of ocular prosthesis. Rakshita underwent an operation to remove the tumor in both her eyes followed by a series of chemotherapy sessions. She coped with the treatment well. She was referred for customized ocular prosthesis and, within a day, she was fitted with life-like artificial eyes.

An alert and active child, Rakshita is the apple of her parents' eyes. The only child in a joint family, she can sense and recognize family members and find her way around the house. Her parents have been counselled to bring her to the rehabilitation department so that little Rakshita can learn how to cope with her visual impairment and grow into a confident young girl.

The Ocular Prosthesis Clinic has created custom-made artificial eyes for babies as young as 13 days; the oldest patient to date was 97 years old.

Corpus Fund for Cancer Care

In early 2004 a Corpus Fund for treatment of children with eye cancer was set up through the generosity of Dr Parin Vakharia in memory of late Olive Swoboda. This special fund enables us to provide quality tertiary cancer care free of cost to children of economically underprivileged families.

The total number of procedures performed and treatment sessions for children with retinoblastoma during the year ending March 31, 2005, was 545, of which 219 were free of charge. This included examination of children under anesthesia, laser transpupillary thermotherapy, and cryotherapy, as well as hospital-based chemotherapy and surgical procedures such as enucleation with orbital implant and plaque brachytherapy.

Limbal stem cell transplant technique reduces amount of donor tissue needed

Scientists at the L.V. Prasad Eye Institute have developed a method of treating limbal stem cell deficiency with cultured adult stem cells.

by Jared Schultz

A transplant technique using cultured adult stem cells has been used to treat limbal stem cell deficiency with a reduced amount of donor tissue, according to a group of

“With the use of culture techniques and stem cell technology, now the amount of donor tissue harvested from limbal tissue can be reduced to a very insignificant amount, thereby avoiding the depletion of the stem cells at the donor site. The epithelium that is generated by this method resembles

of Penetrating Keratoplasty After Cultivated Limbal Epithelium Transplantation

Virender S. Sangani, MS; Himanshu P. Matilla, MS; Geeta K. Venuganti, MD; Ghazala Jilhekar, MS; Anves Fatima, MS; Shaadi Singh, PhD; Gullapalli N. Rao, MD

Objective: To describe the early results of penetrating

immunosuppressive therapy. Fourteen (97%) of the 15 successful corneal graft with a stable corneal operative best-corrected visual acuity was 20 in 40 of the 13 eyes. At a mean ±SD follow-up of 5.0 months after PKP, the best-corrected was more than 20/60 in 8 eyes, 20/200 to 20,000 in 2 eyes. Three of seven eyes of scleritis rejection, which successfully. One eye with graft rejection cornea. None of the limbal epithelial signs of rejection.

Early results of PKP following cultivated stem transplantation are favorable when penetrating the ocular surface. Adequate immunosuppression is essential for allogeneic cultivated limbal transplantation to avoid rejection. Corneal separately reject the limbal allografts.

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The immature amplifying cells, which have a limited life span and limited proliferative potential, fail to provide a stable epithelial surface to the graft, necessitating the use of immunosuppressive therapy to maintain the graft. These results suggest that the use of cultured stem cells for PKP may be a viable alternative to the use of limbal tissue. The use of cultured stem cells for PKP may be a viable alternative to the use of limbal tissue. The use of cultured stem cells for PKP may be a viable alternative to the use of limbal tissue.

Stem Cell update

The Institute has been treating patients with chemical burns, limestone powder injury, allergic reactions to drugs and auto-immune diseases, wherein the limbus around the cornea is damaged. This situation leads to limbal stem cell deficiency, leading to corneal opacity (loss of corneal clarity or transparency) and blindness. The need to offer a cure to these patients in the clinic was discussed at length in the laboratory where clinicians and scientists met to find a lasting solution.

Successful culturing and transplantation of the limbal epithelium were reported from Italy, Taiwan and Japan. Based on these, the team at LVPEI initiated work on limbal stem cells. The process involved the harvesting of a small bit of limbal tissue (1-2 mm) from a patient's good eye, or from the eye of a blood relative. This bit of the limbus is grown on a pre-processed sample of human amniotic membrane, to produce a transparent, stitchable sheet of corneal epithelium in the laboratory. This epithelial tissue is transplanted back into the patient's damaged eye. Typically, within a few weeks of transplantation the patient becomes asymptomatic, with a good stable ocular surface and visual recovery in most cases. Some patients, for complete visual recovery, require a second surgery of corneal transplantation.

The team performed this procedure on a patient for the first time in April 2001 and, till date, has treated more than 250 patients, with nearly 70 per cent success. In around 15 per cent patients a corneal transplantation was performed successfully, with very good visual recovery in 80 per cent cases.

While treating these patients, the team encountered people with even more severely damaged ocular surfaces, with damage to the surrounding conjunctival area. This prompted them to attempt to culture the conjunctival epithelium as well. Subsequently, the team developed an innovative technique of “composite culturing” or “co-culturing” the entire ocular surface, consisting of the central limbal cells and the peripheral conjunctival cells, separated by a self-developed ring barrier. These co-cultures have been used to treat almost 20 per cent of the patients suffering from severe ocular surface abnormalities, with about 60 per cent success.

A major advantage of cultured limbal transplant is that it reduces the amount of limbal tissue that needs to be harvested from the donor site for treating the damaged

Sight for sore eyes

An Indian hospital is pioneering a stem-cell cure for blindness



PICTURE The scene is a distraught parent rushing to hospital clutching a screaming toddler. While the mother's back was turned, the child had picked up a household cleaning product and managed to squirt some in her eye. Doctors find that the cornea, the clear surface layer over the centre of the eye, has been severely damaged. Living donor eye banks are the world's first to offer a cure for this condition. The girl would be likely to go blind permanently if she did not receive a cornea. She has been taken to L.V. Prasad Eye Institute (LVPEI) in Hyderabad, an Indian eye hospital, where a stem cell transplant is being performed. The procedure involves harvesting a small piece of limbal tissue from the patient's good eye or from a blood relative and growing it on a pre-processed sample of human amniotic membrane. The resulting transparent, stitchable sheet of corneal epithelium is transplanted back into the patient's damaged eye. Typically, within a few weeks of transplantation the patient becomes asymptomatic, with a good stable ocular surface and visual recovery in most cases. Some patients, for complete visual recovery, require a second surgery of corneal transplantation.

eye. Moreover, it obviates the need for immuno-suppression where autologous tissue has been used. It is ideal for patients with unilateral disease and for those requiring large amounts of epithelium for ocular surface reconstruction. Even in cases of bilateral injuries where the patient's own tissue is not available for cultivation, a minimal amount of tissue can be harvested from living related donors (next of kin), cultivated and then used for ocular surface reconstruction of both eyes. In these cases, however, immuno-suppression is required.

The procedure does not involve embryonic tissues or aborted fetuses and is performed with the informed consent of the patient.

LVPEI has the distinction of treating perhaps the largest number of patients this way at any single site the world over. This program was initiated with financial support from Hyderabad Eye Research Foundation (HERF) and the Department of Biotechnology (DBT), Government of India. In late 2003 we received major support from Sudhakar and Sreekanth Ravi, two non-resident Indians based in the USA. It was through their support that a dedicated Stem Cell Biology Laboratory was set up, which was inaugurated by the President of India, Shri APJ Abdul Kalam.

Today the Ravi brothers continue to support the efforts of our clinicians and scientists to find solutions to other eye diseases. The team is also exploring the possibility of transdifferentiation of bone marrow stromal cells into neuro-glial and retinal lineage. This is in the very initial stages of experimentation and requires a lot of work and evidence before it can be considered for human experiments.

Emergency care saves a child's vision

Eight-year-old Anitha from Gulbarga, Karnataka, was brought into the Emergency Clinic on April 1, 2005, screaming and hysterical. She had hurt herself and her right eye seemed swollen. But she had covered the eye and would not let even the doctors check it. Her parents, overcome with worry and concern, were near collapse.

A preliminary examination revealed that Anitha's eye was bulging out. As she was uncooperative and averse to being examined it was not easy for the optometrist on duty to assess her vision. The parents could not offer any specific information on the nature of the injury, she seemed to have hurt herself while playing 10 days ago. Initially her uncle, an ophthalmologist, had seen her and advised topical antibiotics.

An examination by doctors at L V Prasad Eye Institute revealed that the vision in her right eye had been reduced to perception of light. There was gross proptosis (protrusion of the eyeball) and the cornea showed signs of exposure.

Anitha's extra-ocular movements were restricted in all directions of gaze. A CT scan showed evidence of a swelling present superiorly and medially and displacing the globe. She was suspected to have a hematoma, a localized swelling filled with blood, behind the eye. The blood was drained under general anaesthesia.

The child was followed up closely. As the corneal condition healed, vision improved and finally stabilized at near normal vision of 6/7.5 in the right eye. Appropriate diagnosis and timely intervention helped save Anitha's eye and vision.



Anitha after her treatment at the Institute



One of the Emergency Rooms



Mrs Usha and Mr Pawan Kumar Kanoria

Mr Kanoria supports Emergency Room

Early this year Mr Pawan Kumar Kanoria from Kolkata came to the Institute with a problem of cataract in both eyes. Mr Kanoria was very happy with the care he received at L V Prasad Eye Institute. He and his wife, Mrs Usha Kanoria, stayed at the Institute's exclusive facility.

The Kanoria family has significant business interests in tea plantations, sugar, jute and textiles. In addition to building up a formidable reputation for his companies, Mr Kanoria has set up several charitable trusts.

As a gesture of appreciation for the Institute and its work, Mr Kanoria made a generous donation towards the newly formalized 24-hour Emergency Services Room. This vital facility enables us to provide immediate care for urgent eye problems. Mr Kanoria's support in a critical care area will help us serve traumatised patients better.

One more Emergency Services Room has been set up with support from the Davars of Sydney and Mumbai and the Unvalas of Sydney and Kolkata.

Vision Rehabilitation Centres

Meera & L B Deshpande Centre for Sight Enhancement

Dr P R K Prasad Centre for Rehabilitation of Blind & Visually Impaired

Rehabilitation of persons with unavoidable vision loss is a natural extension of our eye care activities. LVPEI was the first eye institute in the world to integrate rehabilitation into patient care. Established in 1987, the Meera and L B Deshpande Centre for Sight Enhancement provides comprehensive low vision services, with the primary objective of restoring individuals with low vision to their optimal level of physical, psychological and social functioning. The Centre trains individuals to use their residual vision to the fullest, making use of a variety of optical and non-optical devices and adaptive technologies.

The Dr P R K Prasad Centre for Rehabilitation of Blind and Visually Impaired was set up in 1992 to provide psychological, social, educational and economic rehabilitation and allied services to those with severe vision impairment. The Centre also conducts community based rehabilitation programs in the slums of Hyderabad and in rural Andhra Pradesh.

Both Centres adopt an individualised approach to rehabilitation; often, our professionals spend many hours working with a single child or adult, and discussing options with caregivers.

While providing sight enhancement and rehabilitation services to children and adults that allow them to function as productive and involved citizens, we also see it as imperative that the human resource base in rehabilitation services is augmented. LVPEI plays a leading role in this area as well – last year the Vision Rehabilitation Centres trained 5914 patients and 81 eye care personnel, through a variety of specialised, focused programs.

Meera & L B Deshpande Centre for Sight Enhancement

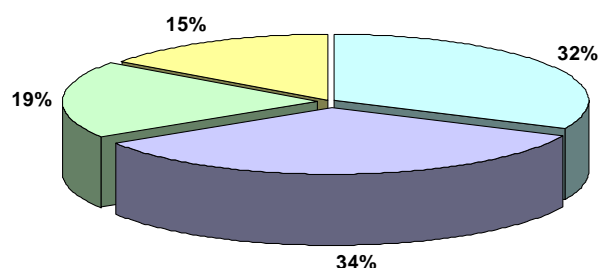
Low vision care during the year

New patients	1833
Follow-up patients	662
Total	2495

Optical devices prescribed

Spectacles	474
Bifocals	168
Magnifiers	463
Telescopes	191

Age-wise analysis of patients



Non-optical devices prescribed

Reading stand	139
Reading lamp	210
Typoscope	42
Approach magnification	1385
Light control devices	151
Closed-circuit television	20

Birth-15 years	583
16-45 years	627
46-60 years	348
61 and above	275

Dr P R K Prasad Centre for Rehabilitation of Blind and Visually Impaired

Rehabilitation Services

Counseling	2610
* Special skills training	343

Instruction in use of

• Assistive devices (computers)	119
• Low vision devices	593
Environmental modification	1579
Educational guidance	887
Vocational guidance	297
Supportive services	2027
Referral to other services	156
Talking books	567
Follow up	1204

Rehabilitation services for children

New patients	1031
Follow-up patients	756
Total	1787

Rehabilitation services for adults

New patients	2497
Follow-up patients	1204
Total	3701

*Includes motor skills, Braille, communication skills, cognitive skills, play and visual skills, orientation & mobility, home management, daily living skills & money identification

Vision Rehabilitation Centres: Events

The **Vision Aid Charitable Services Society (VACSS)** inaugurated a Vision Aid Centre at Visakhapatnam on August 29, 2004. The centre has been set up in cooperation with Vision-Aid, USA, with technical support from the Vision Rehabilitation Centres, LVPEI. This is the first full-fledged low vision care centre in the region, with trained ophthalmologists and optometrists. It will offer patients low vision assessment as well as counselling in the use of low vision devices.

A **scientific seminar** was organized on the occasion with presentations by Dr Sarfaraz Ali Khan, Director, Vision Rehabilitation Centre, and Dr K Ilango, Centre Head, Aravind Eye Hospital, Madurai.

An **exhibition cum screening camp** on 'Diagnostic and therapeutic services available for speech & hearing disabilities' was organised at LVPEI, in collaboration with Sweekar Rehabilitation Institute for Handicapped, Secunderabad, on December 9, 2004.

Dr Khan participated in the **brainstorming session on teaching aids and appliances**, as well as mobility aids for

people with disabilities, held on January 24, 2005, at Devnar School for the Blind, Hyderabad, with support from STEM and Science Technology, New Delhi.

An **information technology resource centre** was formally inaugurated on July 24, 2004, with support from Mr Praveen Gottipalli, Latter Day Saint Charities, USA, and Sneha Sugandh Club, Hyderabad. The centre offers students who are blind or visually impaired access to computer software, books in Braille and large print, and an audio library.

Several **workshops** were conducted for parents of blind and visually impaired children. The areas covered included: play skills, concept development, technology for the blind & low vision, cognitive skills, arts and crafts, physical education, environmental modifications, self-help skills for the visually impaired, and behavioural modifications.

A workshop for parents of children with visual impairment and additional disabilities was held during November 26-27, 2004. It was sponsored by the National Institute for the Visually Handicapped, Secunderabad.



The VRC project of selling **greeting cards** based on paintings made by visually impaired children, patients of LVPEI, was well received. We sold over 2000 cards; many more were used by the faculty and staff of the Institute. The funds raised were used to support the Centre's activities.

A mother's story



Ajay on the Thames in London



Kasturi with her son

It was the 7th of December 1989 when a baby boy was born to us. But our happiness lasted for a very short while. There was something strange about him. He was extremely white, with golden hair and very light eyes. He was an albino. Thus began our journey with our child into the world of albinism.

Albinism is a condition where the pigment producing agent, melanin, is absent. As a result the person is very fair and has golden hair. Sometimes the pigment is not present in the retina, due to which the vision is affected. This condition is called oculocutaneous albinism. Our child was an oculocutaneous albino. We named him Ajay (one who cannot be vanquished) as we wanted him to conquer all his difficulties.

Those days we did not have much information about this condition. The Internet was not easily accessible. We tried reading books but not too many were available. Bringing Ajay up was a process of trial and error. He had photophobia or fear of light; he could not even tolerate light from a 25-watt bulb. We kept him in a room with a zero watt bulb, so he could open his eyes comfortably. As he grew, we increased his exposure to light and, eventually, he was comfortable with a 40-watt tubelight.

We continued to visit doctors and specialists, but all of them would tell us the same thing: he will not be able to bear sunlight, he may not have good vision, etc. Each visit would only add to our depression.

Yet we never gave up hope. In June 1992 we took him to Sankara Netralaya at Chennai. He was just two and a half years old then and very frightened. He would not allow doctors to examine him properly. Eventually, doctors found

that he had very poor eyesight, so he started wearing glasses.

It was not easy for Ajay. Those days the lenses were heavier and because of his large head it was difficult for us to find a frame that fit well. We used to tie the glasses around his head with elastic, only to have him pull them off. It was a constant tussle between us.

Ajay was most uncooperative at his next follow-up visit to Chennai and we were in despair. It was at this point that we learnt of an eye institute in Hyderabad. Hyderabad was our hometown and definitely more convenient.

We first visited L V Prasad Eye Institute (LVPEI) in 1993. For the first time we saw pictures being used during an eye examination. They caught the attention of the child, helping to obtain his cooperation.

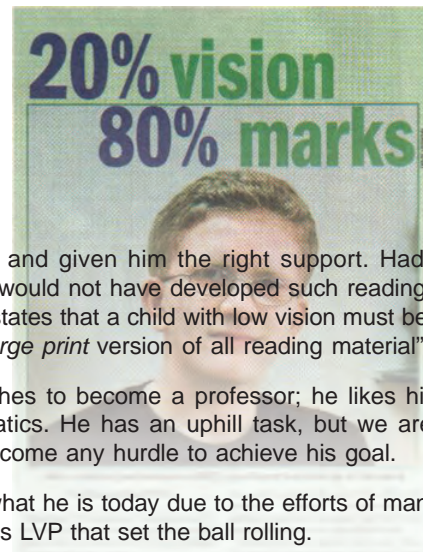
This made the examination relatively easy and the refraction could also be measured correctly. We were told not to force the child to wear spectacles, and that he would automatically start wearing them once he realized he could see better with them. We saw a ray of hope that day.

On our next visit in April 1998, there was a new children's eye care center at LVPEI. This was the turning point in Ajay's life. At the low vision center Dr Khan examined him in detail. He took Ajay to the third floor lounge to watch a cricket match. Dr Khan wanted to ascertain the distance from which he watched TV, the posture that he maintained, etc. Certainly this test could have been done clinically without actually taking the child to watch TV. But it was the approach that made Ajay very comfortable.

We were given instructions on the use of low vision devices. Ajay was advised to use a pair of glasses for regular use, tinted glasses for sunlight, special high-powered glasses for reading, a hand-held magnifier and a spectacle mounted binocular. We were advised about the kind of notebooks that he should use, and given a design for a reading desk. We were told that Ajay should use a hat when he went out in sunlight.

We found our hopes turning into reality. We felt more confident about raising this child and the results showed in his academic performance.

In October 2002 my husband was posted in London for two years. We were anxious to see if we could do anything better for our son and took him to Moorfields Eye Hospital. The doctors were amazed to find that he could read Harry Potter books. They said, "Thank your stars that you were not in England during his formative years! You have done



the best and given him the right support. Had he been here he would not have developed such reading skills, as the law states that a child with low vision must be provided with a *large print* version of all reading material".

Ajay wishes to become a professor; he likes history and mathematics. He has an uphill task, but we are sure he can overcome any hurdle to achieve his goal.

Ajay is what he is today due to the efforts of many people. But it was LVP that set the ball rolling.

By Mrs Kasturi Krishnakumar and Mr M V K Kumar (Ajay's parents)

As we go to Press we have learnt that Ajay secured 88.80% in his SSC exam. He stood first among students with visual impairment in Mumbai district, second among physically challenged students in Mumbai district and third in his school (the first two rankers are normally sighted).

Community Based Rehabilitation

A **refresher training program** for community workers was conducted during May 10-14, 2004, for refreshing the skills of community workers in assisting self-help groups and providing training to children with multiple disabilities.

A **community awareness program** was conducted on June 19, 2004, at Ranganagar, with Mr Moosaudin, Corporator, Bholakpur, as the chief guest. Information on prevention of disabilities, health, hygiene and welfare of people with disabilities was given to people through skits and songs.

Self-help group meetings were conducted in various areas, such as Muggubasti, Chacha Nehru Nagar, Ranganagar and Bandamaisamma.

An **orientation program** for teachers was conducted on July 23, 2004, at P V R High Tec English medium school, Bansilalpet, Hyderabad, in which 27 teachers from four schools participated. They were educated about school screening programs to identify children with vision problems, as well as the need for integrated education for such children.

Speech therapist: Mr Vijay Kumar, speech therapist, assessed 15 children with multiple disabilities during the year. He guided field workers on intervention plans and training methodology for these children.

A **medical screening camp** was conducted at Ranganagar, with a multidisciplinary team, including a physician, pediatrician, orthopedician, physiotherapist, speech therapist and optometrist. Approximately 200 individuals benefited from this camp.

Camp for fun

'**Camp for fun**' A camp for children with visual impairment was organized on December 24, 2005, in which 118 persons, including visually impaired children, siblings, family members, staff and volunteers, took part. Cultural and sport events were organized for the children. Mrs Jacqueline and Dr Calvin Pabst, humanitarian service volunteers from Latter Day Saints Charities, USA, were the chief guests.



Children enjoy themselves at the Camp

Impressions of LVPEI: Calvin Pabst

At the request of the Communication Department, it is a pleasure for me to attempt to put into words the different impressions that I have received of LVPEI, and the personnel that I have become acquainted with this past year.

I want to express my gratitude for the kindness and consideration my wife Jackie and I have received since we arrived. I am a retired optometrist of 36 years in a private general practice in the United States. We were called by our church in December 2003 to serve as Humanitarian Service Volunteers for Latter Day Saint Charities and LVPEI was kind enough to be our sponsor here in India.

Since arriving here we have been involved with the IT Resource Center (of the Vision Rehabilitation Services) in providing a Braille printer and developing a Braille library. We have provided equipment for the Early Intervention Program for multiple handicapped children at LVPEI. We have also become involved with Help Age India in providing water storage facilities and borewells to 12 villages north of us, and in providing borewells and vacuum pumps to 32 villages south of us. We have had the opportunity to work with Krushi Homes in providing school supplies, shoes, backpacks, and belts to 60 to 80 boys.

The impression I get is that there is so much need in this good land. There are also many good providers and caregivers that are striving to assist those that are in need.



Jackie and Calvin at the inauguration of the IT Resource Center on July 24, 2005

We are so impressed with the care giving that is displayed here at LVPEI. The many that are cared for that have no way to make payment, but are provided the same care as if they were able to pay. I will always remember the little thatched hut at the side of the road that Jachin Williams showed us as we visited an outreach hospital. Inside sat a blind man with a cabinet full of commodities to be sold to passersby. On the cabinet was a plaque 'Donated by L V Prasad Eye Institute'. This blind man had been taken off the streets, rehabilitated by LVPEI, and is now making his way in life with his own business.

I am reminded of the statement, "In as much as ye have done it unto the least of these my brethren, ye have done it unto me". Also, "When ye are in the service of your fellow being ye are only in the service of your God".

It is difficult to talk about LVPEI without mentioning names and personalities. I think of Dr Rao with his great vision and fulfilling of a dream. Dr Thomas – 'Mister Public Relations' with his firm handshake and friendly smile. Dr Khan's sense of humor, great leadership and teaching capabilities. Sam (the man) – resourcefulness, the 'Can Do Guy'. Beula and Sharmila – great care givers. Vijaya and Ghanshyam Singh Mirdha have a good vision on what optometry needs to become in this country. Jachin – a friend. The kitchen help – thanks for your kindness to us. To staff, students and assistants, your friendly smiles and greetings transcend our inability to get to know you better. Thank you one and all! These impressions will be with us forever.

By Dr Calvin L Pabst



Dr Calvin and Jacqueline Pabst arrived in March 2004 for an 18-month stay in Hyderabad, wanting to make a difference in the lives of fellow human beings. Living in a new country wasn't easy for them. But they were always cheerful, never complained, and had a good word to say about everyone and everything. Their natural warmth and Jackie's unending treats of cakes and goodies won them many friends. They are striving to forge a stronger, more enduring partnership between Latter Day Saint Charities and L V Prasad Eye Institute.

Community Eye Health & Outreach

International Centre for Advancement of Rural Eye Care (ICARE)

The community eye health component of LVPEI has made notable progress on all fronts during the past year. Development of the concept of a 'Vision Centre' about five years ago for delivery of primary eye care, one for every 50,000 people in the underserved areas, translated into action four years ago with the inauguration of the first Vision Centre. With its success, more centres were developed – initially with support from Sight Savers International and, more recently, from the Lavelle Fund of New York, Inc. We now have a total of 12 Vision Centres; an additional 15 will be added during the current year when the Mudhol and Toodukurthy eye centers will have a full complement of 10 Vision Centres each by the end of 2005.

Another exciting program on the anvil is to create a comprehensive eye health program for an entire district with support from the Ravi brothers of California. This will give us many new and unique opportunities to evolve models for the ultimate goal of combining “excellence with equity” through high quality, comprehensive and sustainable approaches. Through this pyramidal model we have started the process of embedding deeper into the communities through 'Village Guardians' – one for every 5000 people. Village Guardians are volunteers with specific

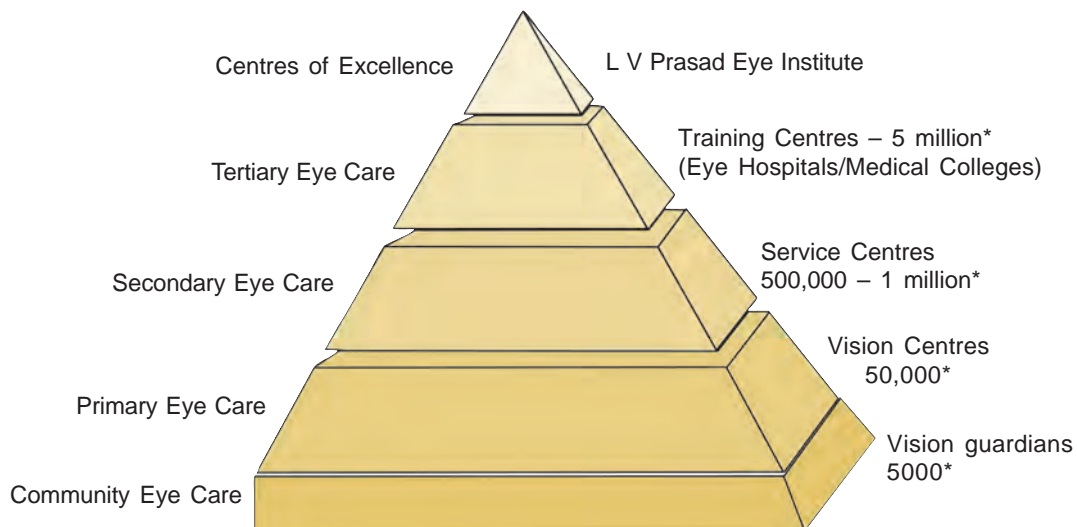
responsibilities. The first phase of this was started in collaboration with self-help groups (SHGs).

Education for community eye health professionals is continuing through our diploma programs. Many of the programs are closely linked with our clinical and low vision rehabilitation training programs, that have relevance in most parts of the developing world. It is this integration that is critical for the successful implementation of any effort directed towards the elimination of blindness.

On the research front, our community eye health group is addressing a whole range of diverse issues – health economics, operations research, and impact assessment of various interventions. In today's world, the best research is possible through collaboration and we are actively engaged in this effort with partners across the world. The results coming out of these research endeavors should help in improving the overall approach to delivery of eye care at all levels to the most disadvantaged people on our globe. Issues of quality, sustainability, and comprehensive care that would be available to all people are addressed in these efforts.

Eye Care – Service Delivery Model

L V Prasad Eye Institute is the only institute in the world that has operations at every level in the eye care pyramid, from small rural vision screening centres to a world class tertiary centre with permanent infrastructure.



*Population

A. Service Delivery

1. Village Vision

a. Community Eye Care (CEC)

	Satellites	Partners
Survey		
Villages surveyed	286	106
Population covered through door to door survey	1,01,181	47,860
People referred for further eye examinations	15,491	4,029
Community Screening Programs		
CSPs organised	253	80
People screened	16,894	2,971
Treated at venue	2,526	274
Prescribed spectacles	5,805	924
Referred to base hospital	8,390	773
Services offered at base hospital		
People treated	3,385	1,719
Prescribed spectacles	1,705	727
Treated for other conditions	625	208
Surgeries performed	2,159	562
LVPEI & Lakshmi Charitable Clinic CEC Programme, Narsingi village, Ranga Reddy district		
People screened		580
Treated at venue		45
Prescribed spectacles		167
Referred to base hospital		44



Children at a school screening camp



Beating drums and singing folk songs to spread awareness about eye diseases

b. Primary Eye Care: Vision Centres

The Vision Centre model was launched in 2002. Vision Centres (VC) are at the base of the pyramid and have a target population of 50,000. A VC is staffed by a Vision Technician recruited from the local community and trained for one year. The VC is fully equipped for performing ophthalmic evaluation, refraction, dispensing spectacles, and diagnosing potentially blinding diseases. The VC offers screening services and is linked with community organisations. Each VC is attached to a secondary level care eye centre (Service Centre), which has links with 10 VCs, thus catering to 0.5 million people.

During 2002-2004, the International Centre for Advancement of Rural Eye care, LVPEI, opened 10 Vision Centres in unreached areas of four districts of Andhra Pradesh (AP). The centers were supported by Sight Savers International, UK, and the Lavelle Fund for the Blind, Inc.,

USA. Fifteen more VCs are planned for 2005 with support from the Lavelle Fund for the Blind, Inc., and the Ravi Brothers Foundation (AP). They will be set up in Adilabad, Mahabubnagar and Prakasam districts of the state.

The daily average screening at the VCs ranges between 10-19 patients; generally 25-35% patients require spectacles, of whom 50-60% buy them at the VCs. Of those screened, 20-26% receive referral services for medical or surgical interventions at the Service Centres of LVPEI.

Functions of Vision Centres

- ◆ Recognising eye problems
- ◆ Refraction and dispensing of spectacles
- ◆ Referrals to secondary and tertiary centres



Directions to a vision centre

Mudhol Service Centre			
Vision Centres	No. of Patients	Refraction & prescription	Referred for further care
Bhainsa (And 1500 school screenings)	3221	873	742
Kubeer (And 1560 school screenings)	2951	639	607
Nandipet	1026	195	231
Naveepet	1266	231	343

Toodukurthy Service Centre			
Vision Centres	No. of Patients	Refraction & prescription	Referred for further care
Wanaparthly	4781	751	1235
Achampet (And 1450 school screenings)	2688	486	437
Nagarkurnool	2138	437	398
Kollapur	1608	257	386
Kothakota	952	165	253

Nidadavole Service Centre			
Vision Centre	No. of Patients	Refraction & prescription	Referred for further care
Chagallu	2764	415	885

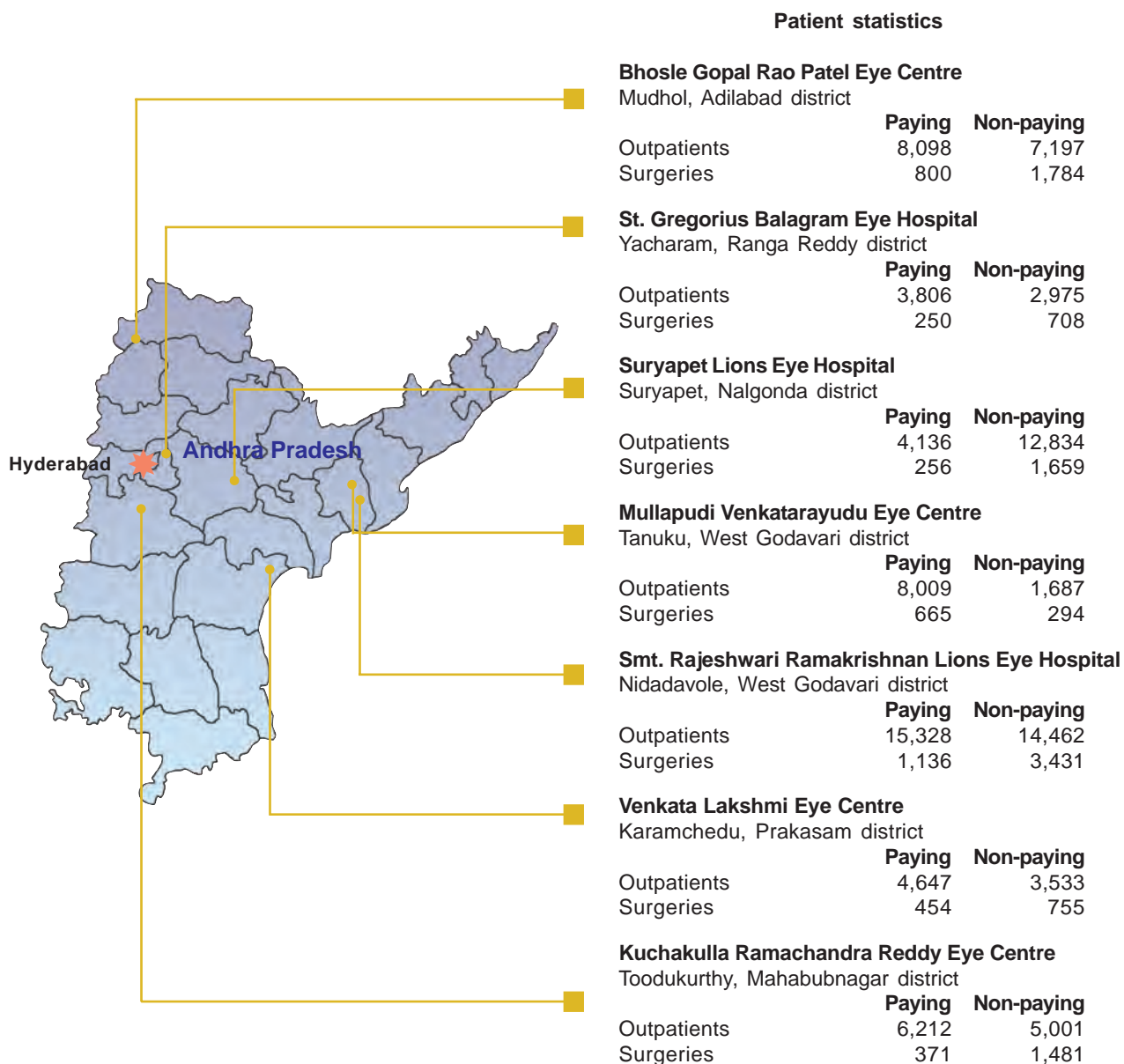
LVPEI, Hyderabad			
Vision Centre	No. of Patients	Refraction & prescription	Referred for further care
VST, Ramnagar	6170	2667	1660

c. Service Centres – Secondary Eye Care

Satellite and Partner Centres

Service Centres, the next tier of eye care after Vision Centres, comprise secondary eye care centers that are either satellites of LVPEI or partner centers, set up with the help of ICARE–LVPEI.

The **Sheshanna Chennawar Eye Centre**, Adilabad, in the northern part of Andhra Pradesh, is the fourth satellite center of LVPEI that is scheduled to go on line in June 2005. ICARE provided infrastructure development and training for all cadres of personnel.



* Hyderabad Partner Centres

	Outpatients		Surgeries	
	Paying	Non-paying	Paying	Non-paying
M S Reddy Lions Eye Hospital, Meerpet, Moula Ali, Hyderabad	6,711	4,410	363	873
Kishore Chand Chordia Eye Centre, Hyderabad	4,515	7,069	221	1,047
Balanagar Lions Eye Hospital, Hyderabad	9,168	1,941	309	219
LVP-VST Vision Screening Centre, Hyderabad		6,228		

2. Hyderabad Outreach Urban Slums Eye care (HOUSE) Program

Survey

Slums surveyed	23
Population covered through door to door survey	49,823
People referred for further eye examinations	4,269

Community Screening Programs

No. of CSPs organised	36
No. of people screened	3,829
Treated at venue	704
Prescribed spectacles	870
Referred to base hospital	574

LVPEI-VST Vision Screening Centre for referred patients

People treated at vision centre	4,203
Prescribed spectacles	2,001
Treated for other conditions	644
Surgeries performed	116
People referred to secondary and tertiary facilities	1,226

School Screening Program

Under the HOUSE program children from 258 government primary, upper primary and high schools as well as private schools were screened this year. The screening programs were conducted in association with Naandi Foundation in Hyderabad district.

Schools screened	:	258
Children screened	:	31,498
Identified with eye ailments	:	3,360
Prescribed glasses	:	126
Treated for other conditions	:	941
Referred to base hospital	:	2,293



A vision technician at work

B. Capacity Building and Consultancy Services

a. Tertiary level eye care facilities

The International Centre for Advancement of Rural Eye care (ICARE) continues to be involved in developing eye care facilities. This year one tertiary center became operational – the MGM Eye Institute is an LVPEI partner initiative at Raipur in the state of Chattisgarh in central India.

The foundation stone was laid for another tertiary eye care facility at Bhubaneswar in the eastern state of Orissa. The Bhubaneswar Eye Institute will become operational in the second half of 2006. Plans have also been finalized for the setting up of yet another tertiary care center in the industrial city of Visakhapatnam in the state of Andhra Pradesh, on the east coast of India. Operation Eyesight Universal, Canada, is supporting the setting up of both these centers.

b. Consultancy and technical assistance

ICARE-LVPEI offers consultancy services in the setting up of eye care facilities, human resource development and research. LVPEI has been working with service centers: Chandra Prabha Eye Hospital, Jorhat, Assam; and the Rotary Service Complex Trust Eye Hospital, Proddatur, Cuddapah district, Andhra Pradesh. They will become operational later this year.

ICARE has also been monitoring these secondary level facilities – all Operation Eyesight Universal (OEU) partner hospitals:

- ◆ Indore Eye Hospital, Indore, Madhya Pradesh
- ◆ Rajan Memorial Eye Hospital, Jalandhar, Punjab
- ◆ Palampur Rotary Eye Hospital, Palampur, Himachal Pradesh
- ◆ Rotary Eye Hospital, Chandausi, Uttar Pradesh
- ◆ Little Flower Hospital, Angamaly, Kerala

c. Needs Assessment Study

The ICARE team has also completed a needs assessment study of the following projects on request from other agencies/organisations:

- Bilaspur Advanced Cataract Centre, Bilaspur, Chattisgarh
- Haldwani Advanced Cataract Centre, Haldwani, Uttaranchal
- Swarnabharathi Trust, Venkatachalam village, Nellore district, Andhra Pradesh
- Andrew Mermoud Eye Centre, Mori Village, East Godavari, Andhra Pradesh

C. Education

a. Diploma in Community Eye Health

The new Diploma Course in Community Eye Health 2005 commenced at the ICARE–LVPEI campus on January 10, 2005. This is a six-month course; there are 17 participants from Africa, Nepal and all over India.



Diploma in Community Eye Health

The **Diploma in Community Eye Health 2004** program concluded at ICARE–LVPEI on June 24, 2004. In the past four years ICARE has trained 35 people from different parts of the world, the country, and the region through this course. The alumni of the course have secured positions of strength and are able to influence eye care policies in their region.

b. Eye Care Management Courses

ORBIS International, USA, plans to sponsor a collaborative project and ICARE–LVPEI has been identified as the training institution to develop the management capacity for eye care programs and eye hospitals within the country. The project will work closely with Aravind Eye Care System, Madurai; R P Centre for Ophthalmic Sciences, New Delhi; Indian Institute of Management, Kolkata; Indian Institute of Health Management Research, Jaipur; and Tata Institute of Social Sciences, Mumbai. The project has commenced in October 2004 and LVPEI-ICARE will run a Program Managers Course in July 2005.

c. Other Educational Activities

Ophthalmic Assistants Refresher Course for employees of the health department of Andhra Pradesh Government - January 18 to February 15, 2005

- ◆ Training Program for CEC and CBR fieldworkers of Sanghamithra (an NGO in Medak district, Andhra Pradesh, and a Sight Savers International partner), January 17-21, 2005.
- ◆ Operation Eyesight Universal Partners training workshop for 19 partner hospitals was held at LVPEI, Hyderabad, from February 2-5, 2005.

- ◆ Four Rotary Cataract Orientation Programs were held for Rotary International and Operation Eyesight Universal, Canada, partner hospitals in the region through January to March 2005.

D. Community Eye Health Planning

a. AP Right to Sight Society workshop

An AP Right to Sight Society workshop on 'Developing a comprehensive 5-year eye care plan for prevention and control of childhood blindness and visual problems in the state of Andhra Pradesh,' was held at ICARE campus, LVPEI. It was attended by officials of the Health Department, Government of Andhra Pradesh. The faculty comprised experts like Dr Clare Gilbert from the International Centre for Eye Health, London, UK, and International Agency for the Prevention of Blindness (IAPB), as well as from LVPEI. The workshop was held on January 3-5, 2005.

b. National Eye Care Plan for Papua New Guinea

The Fred Hollows Foundation (FHF) based at New Zealand has been supporting the eye department at Port Moresby General Hospital, Papua New Guinea (PNG), for addressing cataract and refractive error problems in the country, and is currently working out strategies to develop a national plan for the country. The Foundation solicited support from ICARE–LVPEI for organizing a population-based survey to obtain reliable estimates for preparing a meaningful plan. A rapid assessment survey on cataract surgical services was designed with an additional qualitative component to get information on existing knowledge, awareness, attitudes and practices with respect to eye diseases and eye care within communities of PNG was undertaken between January and March 2005 this year. The ICARE team visited PNG from November 30 - December 8, 2004, to train the survey team and plan the implementation of the survey. ICARE will be responsible for analysis and report generation.

c. Eye Health support for South Pacific islands

ICARE has been providing international assistance for capacity building of South Pacific Programs. Management training for a week as part of the Pacific Eye Doctors Workshop, supported by Fred Hollows Foundation, New Zealand, was held at Vanuatu, South Pacific Islands, from June 26 to July 2, 2004 and ICARE provided a trainer on this workshop. The areas of support were cataract surgical outcome monitoring, operations research, health promotion, and education for the South Pacific Islands.

This was followed by a short-term assignment at FHF, New Zealand, for South Pacific Islands, Papua New Guinea, and Fiji partner hospitals from February 12 to April 3, 2005.

E. Research

1. Village Vision Projects

a. Community Assisted and Financed Eye Care (CAFE)

During this year, 4684 new persons were registered under the CAFE project. In addition, 5308 registrations were renewed for the first year; 6376 for the second year and 1912 for the third year. The total number of renewals this year was 18,280.

Regarding service delivery, 4346 persons underwent detailed eye examinations and 529 underwent surgeries at Smt Rajeswari Ramakrishnan Lions Eye Hospital, Nidadavole, West Godavari district, in association with Eye Sight International, Canada.

b. Providing Eye care through Empowered People (PEEP): ORBIS – LVPEI – SVYM Eye Health Financing project

ICARE–LVPEI and Swami Vivekananda Youth Movement (SVYM), Sargur, HD Kote, Mysore have successfully launched a program with support from ORBIS India. The eye and health care financing project has been spurred by the success of the CAFE project.

The project will be implemented in Adilabad and Nizamabad districts of Andhra Pradesh through existing community based institutions. While SVYM would do the entire health financing in and around Mysore district field practice area, A P Mahila Abhivruddhi Samiti (APMAS) based in Hyderabad will provide technical support for its implementation. The project was launched in April 2004; so far 7947 persons have been registered.

2. Other Projects

a. Impact Assessment Study

The Impact Assessment Study following Cataract Surgery was successfully completed in March 2005. A debriefing meeting was held in February 2005 to review the study and a draft report was presented. The team is writing up 30 comprehensive case studies. The final report will be available by the end of June 2005.

The **Corneal Ulcer Management Project** according to WHO guidelines was undertaken at three levels: primary, secondary and tertiary levels. The three months

retrospective and the prospective phase of nine months were planned for implementation. The retrospective phase began in July 2004 and was completed. The prospective phase is due to start soon!

b. Workshops and Seminars

'Collaborations – NGOs in the VELUGU project activities' workshop, VELUGU, Society for Elimination of Poverty, a Government of Andhra Pradesh project, ICARE-LVPEI, Hyderabad, India. October 8, 2004.

The Lions Sight First capacity building program for Lions eye hospitals in Andhra Pradesh was conducted in January 2005.



F. Community Eye Health Journal

The Community Eye Health Journal - Indian Supplement continues to be edited, designed and published from Hyderabad. This effort is funded by ORBIS for the VISION 2020: The Right to Sight India Forum.

Pentaiah learns to earn a livelihood

“This is the story that I will go back and tell! Maybe it is routine for you all but for me it was a very moving experience – a human story, very meaningful,” says Calvin Pabst of LDS Charities.

In a little thatched hut by the road, Pentaiah sits with a cabinet full of commodities. It was during a routine community based rehabilitation program in March 2002 at Kuchakulla Ramachandra Reddy Eye Centre (Thoodukurthy, Andhra Pradesh) that a field worker identified Panuganti Pentaiah. Pentaiah had lost his eyesight as a child and lived with his brother’s family, agricultural laborers in Budharam village in Gopalpet mandal.

Despite being blind, Pentaiah was very energetic and lively. He used to roam around the village, depending upon the villagers’ generosity to make some money. He had never worked, but was popular because of his sociable nature. He did not use any mobility aids; he walked very slowly in unfamiliar areas or took the help of his brother’s children.

When the ICARE field worker identified him he was in an unkempt condition. The rehabilitation team counselled him and tried to convince him to become a CBR program beneficiary so that he could lead a productive and dignified life. Pentaiah told them how much his daily earnings were and demanded to know whether they could guarantee him that amount. He was assured that he would make a decent living, in addition to acquiring respectability.

Pentaiah was quick to train in the essential living skills taught by the field worker, as also orientation, mobility, and socio-economic skills. The rehabilitation team also arranged for a Government Medical Board Blindness Certificate, transport concessions and old age pension.

Keeping in mind Pentaiah’s interests and local resources, he was given vocational training in trade and business techniques for running a petty shop. The village panchayat president approved his request for a shop on the highway and the local villagers helped him to construct a bamboo shed. Starting with an initial investment of Rs 1,200 from Christoffel Blindenmission, (a leading eye care funding agency in Germany) he began selling essential commodities.



Pentaiah at his shop

Pentaiah manages his small business successfully. His brother’s son helps him when he goes out to purchase stock. Helping Pentaiah become independent has been a proud achievement for the CBR field workers.

Education Centre



Trainees came from all over India and various parts of the world

- Africa ● Armenia ● Australia ● Bangladesh ● Bhutan ● Cambodia ● Egypt ● India ● Lebanon ● Libya
- Malaysia ● Nepal ● New Zealand ● Pakistan ● Paraguay ● Singapore ● Switzerland ● Tanzania ● UAE ● UK ● USA

LVPEI is a World Health Organization Collaborating Centre for training eye care professionals from all over the world. The Education Centre trains eye care personnel at all levels - post-doctoral ophthalmology fellows and practicing ophthalmologists, as well as optometrists, ophthalmic technicians, nurses, bio-medical technicians and eye care administrators.

The Centre has, till date, trained over 8000 personnel in all subspecialties and across all functional levels. It continually upgrades its curriculum, teaching methodologies and materials, resulting in highly focused and up-to-date training programs.

The Education Centre completed a satisfying year, with a tremendous increase in the number of trainees. They came from all over the world; an ophthalmologist from far away Paraguay came for a fellowship in cornea and anterior segment. A team from Pakistan, sponsored by World Health Organization, trained for three months in pediatric ophthalmology.

The Institute has also been involved in training personnel in the management of eye centres from various parts of the country. We trained and staffed all the personnel for the tertiary care centre at Raipur in the state of Chattisgarh in central India. This included ophthalmologists who had trained earlier at the Institute as long-term fellows and had undergone a short-term three month program before going to Raipur.

Over 60 eye care professionals came as observers last year. We have also trained young ophthalmologists, who were undergoing residency programs at government medical colleges and hospitals, in diagnostic skills at the LVP Zeiss diagnostic centre.

The Bausch & Lomb School of Optometry celebrated its first convocation on November 28, 2004. Ten students were awarded bachelor's degrees, while nine received diplomas in ophthalmic techniques. The course is conducted in collaboration with the Birla Institute of Technology and Science (BITS), Pilani.

Udo Duerksen – Fired by a Dream

In Paraguay the ratio of ophthalmologists to the population is 1:35,000 – far better than India's 1:100,000. But the Cataract Surgery Rate (CSR) rate is 1800 surgeries every year per million population, as against an estimated 3000 in India. Seeking to improve upon this number is Dr Udo Gaylord Duerksen from Asuncion, Paraguay, who recently completed his fellowship program in cornea and anterior segment at the L V Prasad Eye Institute.

Udo did his medicine at the Catholic University in Paraguay, the second largest university in the country. He went on to do a one-year observership in general medicine at Tucson, Arizona, where he also learnt to speak English fluently and eloquently. His wife Jenny has a diploma in business management; the couple have two children, Rebekka and Eric. Both Udo and Jenny are of German descent.

Before coming to LVPEI, Udo went to the Dominican Republic for a prestigious three-year residency program in comprehensive eye health with special emphasis on blindness prevention. His brother Dr Rainaldo, also an ophthalmologist, has been his inspiration. Dr Rainaldo is presently Regional Chair, International Agency for the Prevention of Blindness (IAPB), Latin America.

Udo says he has learnt more at LVPEI than he probably would have anywhere else in the world, such as the epidemiology tools. He used to question his brother's decision to see only very rich or very poor patients, not the middle class. The assumption was that the rich would visit a doctor who also sees poor patients as charity, but would be too snobbish to go to one seeing all kinds of patients. After studying the successful LVPEI tiered model of paying and non-paying patients, Udo has an alternative system for his brother so as to not exclude the sizeable chunk of the middle classes.



Escorting a tribal 'Lambada' patient of LVPEI



Udo, Jenny, Rebekka and Eric pose for a tourist picture at Taj Mahal

Udo wants to do mass surgeries at low cost as the costs of cataract surgery in Paraguay are six times more than at LVPEI. He would like to offer residency programs to help Paraguay assume a more active teaching role in Latin America. His three priorities in life are:

- to be a specialist in diseases of the cornea and anterior segment,
- to be a part of the blindness prevention program in his country and the region, and
- to learn more about eye banking, because there is no eye donation program in Paraguay. Corneas are bought from Canada at US \$ 500 each, which is the standard processing fee.

"We have three times the ophthalmologists you have, but we are not reaching the people," Udo says. "Ours is a more widespread country, and people cannot travel long distances to seek eye care. We need to have a bigger presence in their lives. We cannot simply put them on a bus, do surgery and send them back home. The ophthalmologists have to be in the villages."

Rainaldo and Udo's new hospital in Asuncion is getting ready, but Udo intends to focus on the remote peripheral areas. The conviction in his voice shows that he will keep his promise.

Ophthalmology Training Programs

The ophthalmology training programs are designed to help fellows develop critical clinical and effective diagnostic evaluation skills, acquire latest surgical techniques and develop an excellent patient care approach. Programs in the subspecialties of the eye follow a similar pattern.

All long-term fellows undergo a three-month probation period for learning basic examination techniques in cornea, glaucoma and retina. For the next 12 months fellows work in rotation with faculty members in the subspecialty of their choice as also in para-clinical departments like microbiology and pathology. They also perform surgery under supervision. The short-term programs provide candidates an opportunity to observe and assist the faculty both in the clinic and operation room.

Cornea & Anterior Segment

Name	Place	Duration	Category
Dr Vandana Jain	New Delhi	15 months	Long-term
Dr Susmita Nag Choudhury	Kolkata, West Bengal	15 months	Long-term
Dr Thorn Pok	Phnom Penh, Cambodia	15 months	Long-term
Dr Kavita V Rao	Mumbai, Maharashtra	15 months	Long-term
Dr Nitin Dua	Ghaziabad, Uttar Pradesh	15 months	Long-term
Dr Shamima Islam	Dhaka, Bangladesh	15 months	Long-term
Dr K Srinivas Prasad	Hyderabad, Andhra Pradesh	15 months	Long-term
Dr Miral H Naik	Navsari, Gujarat	3 months	Short-term
Dr Ashish Nagpal	Ahmedabad, Gujarat	3 months	Short-term
Dr Hitendra N Ahoja	Gurgaon, Haryana	3 months	Short-term
Dr Samrat Chatterjee	Raipur, Chattisgarh	3 months	Short-term
Dr Siddharth Kothari	Jaipur, Rajasthan	3 months	Short-term
Dr Ashraf M Ibrahim	Cairo, Egypt	3 months	Short-term
Dr Hemanth Singh Trehan	Jorhat, Assam	3 months	Short-term
Dr Kalpana Suresh	Chennai, Tamil Nadu	3 months	Short-term

Glaucoma

Dr Pankaj Maheswari	Aligarh, Uttar Pradesh	15 months	Long-term
Dr Nikhil S Choudhari	Parbhani, Maharashtra	15 months	Long-term
Dr Vasantha	Hyderabad, Andhra Pradesh	15 months	Long-term
Dr Sirisha Senthil	Hyderabad, Andhra Pradesh	3 months	Short-term
Dr Nayana Anil Potdar	Mumbai, Maharashtra	3 months	Short-term
Dr Brinda P Shah	Mumbai, Maharashtra	3 months	Short-term
Dr Soma Mandal	Raipur, Chattisgarh	3 months	Short-term
Dr Subrata Pathak	Kolkata, West Bengal	3 months	Short-term
Dr Khandoker Ziaul Islam Md Ali	Dhaka, Bangladesh	3 months	Short-term
Dr Mohd Quamrul Islam Khan	Dhaka, Bangladesh	3 months	Short-term

Retina Vitreous

Dr Hema Rawal	Gurgaon, Haryana	2 years (DNB)	Long-term
Dr Rajeev Jain	New Delhi	15 months	Long-term
Dr Rajesh P	Ahmedabad, Gujarat	15 months	Long-term
Dr Sikendar Ali Khan Lodhi	Hyderabad, Andhra Pradesh	15 months	Long-term
Dr Sabyasachi Pattanayak	Cuttack, Orissa	3 months	Short-term
Dr Dinesh Sahu	Raipur, Chattisgarh	3 months	Short-term
Dr Ajay Kapoor	New Delhi	3 months	Short-term

Comprehensive Ophthalmology

Name	Place	Duration	Category
Dr Anagha Kelapure	Nagpur, Maharashtra	3 years	Long-term
Dr Mayur R Moreker	Mumbai, Maharashtra	3 years	Long-term
Dr Punkaj Gupta	New Delhi	3 years	Long-term
Dr Zahid Ali Siddiqui	Varanasi, Uttar Pradesh	3 years	Long-term
Dr Ramesh Babu Bobbili	Anantapur, Andhra Pradesh	3 years	Long-term

Pediatric Eye Care Teams

Dr Mohammed Naeem Khan	} WHO sponsored program Pakistan Institute of Community Ophthalmology, Pakistan	3 months	Short-term
Dr Nasreen Laiq		3 months	Short-term
Ms Afshan Tabasum (Nurse)		3 months	Short-term

Pediatric Ophthalmology

Dr Vijaya Mohan	The Tun Hussein Onn National Eye Institute, Malaysia	3 months	Short-term
Dr G V Prasad	Nellore, Andhra Pradesh	3 months	Short-term

Ophthalmic Plastic Surgery, Orbit & Ocular Oncology

Dr Armine Gharakeshishyan	Yerevan, Armenia	15 months	Long-term
Dr Debraj Shome	Mumbai, Maharashtra	15 months	Long-term
Dr Kalpesh Shah	Mumbai, Maharashtra	6 months	Short-term
Dr Partha Mandal	Raipur, Chattisgarh	3 months	Short-term

Retina Laser

Dr Ambarish Toshniwal	Pune, Maharashtra	1 month	Short-term
Dr Kalpna Tarun Tejwani	Surat, Gujarat	1 month	Short-term
Dr Neeraj Kumar Singh	Lucknow, Uttar Pradesh	1 month	Short-term
Dr Rema Manoj Nair	Sharjah, UAE	1 month	Short-term
Dr Yuvraj Markan	Muktsar, Punjab	1 month	Short-term
Dr Sarita Vivek Choudhary	Raipur, Chattisgarh	1 month	Short-term
Dr K V V Satyanarayana	Visakhapatnam, Andhra Pradesh	1 month	Short-term
Dr P R Niveditha	Kurnool, Andhra Pradesh	1 month	Short-term
Dr G R Bharath	Warangal, Andhra Pradesh	1 month	Short-term
Dr N Shashikala Rao	El Beida, Libya	1 month	Short-term
Dr Anupama Tandon	Ajmer, Rajasthan	1 month	Short-term
Dr Swati Handa	Singapore	1 month	Short-term

Phacoemulsification

Dr Shekhar Mankad	Indore, Madhya Pradesh	1 month	Short-term
Dr Krishna Prasad Pallem	Visakhapatnam, Andhra Pradesh	1 month	Short-term
Dr V Subbarayudu	Hyderabad, Andhra Pradesh	1 month	Short-term
Dr P Sudhakar Rao	Kurnool, Andhra Pradesh	1 month	Short-term
Dr B V Mallikarjun	Warangal, Andhra Pradesh	1 month	Short-term
Dr Venkateswara Rao	Guntur, Andhra Pradesh	1 month	Short-term
Dr Apurba Adhikari	Midinipur, West Bengal	1 month	Short-term
Dr Varinder Kumar Garg	Patiala, Punjab	1 month	Short-term
Dr Monisha Malhotra	Jalandhar, Punjab	1 month	Short-term
Dr Samir Kumar Das	Hapania, Tripura	1 month	Short-term
Dr Ashraf M Ibrahim	Cairo, Egypt	1 month	Short-term
Dr Shiv Kumar Yadav	Moradabad, Uttar Pradesh	1 month	Short-term

Retinopathy of Prematurity

Dr Rama Devi	Visakhapatnam, Andhra Pradesh	1 month	Short-term
Dr P Vasudev	Visakhapatnam, Andhra Pradesh	1 month	Short-term

Retinopathy of Prematurity

Name	Place	Duration	Category
Dr P V K S Varma	Visakhapatnam, Andhra Pradesh	1 month	Short-term
Dr Vasanth	Vijayawada, Andhra Pradesh	1 month	Short-term
Dr Manohar Chalawadi	Vijayawada, Andhra Pradesh	1 month	Short-term
Dr Murali Mohan Gurram	Karimnagar, Andhra Pradesh	1 month	Short-term
Dr V Vasudeva Chakravarthy	Bhimavaram, Andhra Pradesh	1 month	Short-term
Dr G Vara Prasad Rao	Machilipatnam, Andhra Pradesh	1 month	Short-term
Dr Malladi Padma	Hyderabad, Andhra Pradesh	1 month	Short-term
Dr G Durga Chaitanya	Hyderabad, Andhra Pradesh	1 month	Short-term
Dr Altaf Akbar Borala	Anantapur, Andhra Pradesh	1 month	Short-term
Dr Gaurav Kakkar	New Delhi	1 month	Short-term
Dr S Zafar	New Delhi	1 month	Short-term
Dr Sony Sinha	Patna, Bihar	1 month	Short-term

Ocular Electrophysiology

Dr Bhavana Sharma	New Delhi		Short-term
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Manual Small Incision Cataract Surgery (MSICS)

Dr Varsha Vinay Dharmadikari	Pune, Maharashtra	2 months	Short-term
Dr Renu Kumari	Bhagalpur, Bihar	2 months	Short-term
Dr Maninder Singh Baweja	Jalandhar, Punjab	2 months	Short-term
Dr Brijendra Singh	Faridkot, Punjab	2 months	Short-term
Dr Syed Sajjadur Rohman	Golaghat, Assam	2 months	Short-term
Dr A K Singh	Dhanpuri, Madhya Pradesh	2 months	Short-term
Dr Rashi Ray	Malda, West Bengal	2 months	Short-term
Dr Devinder Kumar Bindlish	Jind, Haryana	2 months	Short-term
Dr Sutapa Das Mandal	Hyderabad, Andhra Pradesh	2 months	Short-term
Dr T Sanjay Reddy	Hyderabad, Andhra Pradesh	2 months	Short-term
Dr Purnima Nath	Cuttack, Orissa	2 months	Short-term

LVP - ZEISS Academy: Ophthalmic Diagnostics (1 Month)

Dr Sudharma Chandra Patra	Cuttack, Orissa
Dr Nibedita Acharya	Burla, Orissa
Dr Debendra Kumar Sahu	Burla, Orissa
Dr Sridhar Maharana	Behrampur, Orissa
Dr Ramamani Delai	Behrampur, Orissa
Dr Abhimanyu Acharya	Behrampur, Orissa
Dr Susanta Kumara Jagadala	Behrampur, Orissa
Dr Debasish Chakraborty	Behrampur, Orissa
Dr K Ajay	Hubli, Karnataka
Dr R Prashant	Hubli, Karnataka
Dr Vijay S Lodha	Gulbarga, Karnataka
Dr Sameer P Sawant	Gulbarga, Karnataka
Dr Gnana Jyothi	Gulbarga, Karnataka
Dr S Nagaveni	Gulbarga, Karnataka
Dr Nitin Nigam	Varanasi, Uttar Pradesh
Dr Atul Kumar Singh	Varanasi, Uttar Pradesh
Dr A Usha	Tirupathi, Andhra Pradesh
Dr I Hymavathy	Tirupathi, Andhra Pradesh
Dr K Padma	Kurnool, Andhra Pradesh
Dr N Aruna Kumari	Kurnool, Andhra Pradesh
Dr C Annapurna	Tirupathi, Andhra Pradesh
Dr Syed Maaz	Hyderabad, Andhra Pradesh
Dr Anina Chandy	Hyderabad, Andhra Pradesh
Dr Sirisha	Hyderabad, Andhra Pradesh

LVP - ZEISS Academy: Ophthalmic Diagnostics (1 Month)

Name	Place
Dr Srilatha Reddy	Hyderabad, Andhra Pradesh
Dr Lalitha Kumari	Hyderabad, Andhra Pradesh
Dr Jayashantilatha	Hyderabad, Andhra Pradesh
Dr Gopika	Hyderabad, Andhra Pradesh
Dr Alia Sultana	Hyderabad, Andhra Pradesh
Dr Madhavi Latha	Hyderabad, Andhra Pradesh
Dr Ravi Kumar	Hyderabad, Andhra Pradesh
Dr K Sachindra Reddy	Hyderabad, Andhra Pradesh
Dr Praveen Pokkula	Hyderabad, Andhra Pradesh
Dr Harinath Babu	Hyderabad, Andhra Pradesh
Dr B Pavani Srinivasan	Hyderabad, Andhra Pradesh
Dr D Chandrakanth Reddy	Guntur, Andhra Pradesh
Dr M Kiranmai	Guntur, Andhra Pradesh
Dr Kamala Lavanya	Guntur, Andhra Pradesh
Dr B Manjula	Guntur, Andhra Pradesh
Dr S Sri Lakshmi	Guntur, Andhra Pradesh
Dr S Md Asif	Guntur, Andhra Pradesh
Dr P P Pal	Guntur, Andhra Pradesh
Dr D Bharat Kumar	Guntur, Andhra Pradesh
Dr K S Rajiv Krishna	Guntur, Andhra Pradesh
Dr Nitee Gupta	Chennai, Tamil Nadu
Dr Radhika Gupta	Jammu, Jammu & Kashmir
Dr Archana Kaul	Jammu, Jammu & Kashmir
Dr Sunita Sharma	Jammu, Jammu & Kashmir
Dr Simran Kaur	Jammu, Jammu & Kashmir
Dr Arti Khajuria	Jammu, Jammu & Kashmir
Dr A Shilpa	Gulbarga, Karnataka
Dr G Ram Kumar	Nidadavole, Andhra Pradesh
Dr Mamata	Kurnool, Andhra Pradesh
Dr Indira	Kurnool, Andhra Pradesh
Dr A Rupa Kala Himabindu	Kurnool, Andhra Pradesh
Dr Prakrati Gupta	Hyderabad, Andhra Pradesh
Dr Vidyavathi S	Gulbarga, Karnataka
Dr Manjula M	Gulbarga, Karnataka

Elective

Mr Stephen Philip Damato	University College, London, UK
Ms Usha Reddy	Brown Medical School, Providence, USA

Observership

Name	Place	Subspecialty
Dr Vinay Murthy	Chennai, Tamilnadu	Cornea & Anterior Segment
Dr Lakkineni V K Raju	Nagpur, Maharashtra	Cornea & Anterior Segment
Dr Varun Kawatra	Jaipur, Rajasthan	Cornea & Anterior Segment
Dr Sutapa Das	Bhopal, Madhya Pradesh	Cornea & Anterior Segment
Dr Durgesh K Singh	Jamshedpur, Jharkhand	Cornea & Anterior Segment
Dr Ngawang Tenzin	Thimpu, Bhutan	Cornea & Anterior Segment
Dr Piyush Unadkat	Rajkot, Gujarat	Cornea
Ms Binal Savla	Mumbai, Maharashtra	Cornea
Dr Anita C Kamarthy	Hyderabad, Andhra Pradesh	Cornea
Dr Aditi Johri	Hyderabad, Andhra Pradesh	Cornea
Dr Sarita Choudhary	Raipur, Chattisgarh	Cornea/Glaucoma/Pediatrics/ Oculoplasty
Dr Abha Dalela	Lucknow, Uttar Pradesh	Glaucoma
Dr Prakash George	Al Ain, UAE	Glaucoma

Observership

Name	Place	Subspecialty
Dr Aparna Bhakare	Satara, Maharashtra	Glaucoma
Dr Nikhil S Choudhari	Parbhani, Maharashtra	Glaucoma
Dr D P Bathwal	New Delhi	Glaucoma/Cornea
Mr Anjul Kumar	Hyderabad, Andhra Pradesh	Retina Diagnostics
Ms Minita Sukkawala	Mumbai, Maharashtra	Retina Diagnostics
Ms Julie Kim	Singapore	Retina Diagnostics
Ms Ailing	Singapore	Retina Diagnostics
Dr Bhavna Dedhia	Mumbai, Maharashtra	Retina Diagnostics
Dr Rashi Ray	Malda, West Bengal	Retina
Dr R Meena Kumari	Tiruchirapalli, Tamil Nadu	Retina
Dr G N Rao	Cuttack, Orissa	Retina
Dr Rajkumar R	Vijayawada, Andhra Pradesh	Retina Vitreous
Dr Anand Kumta	Mumbai, Maharashtra	Retina Vitreous
Dr Lipika Roy	Visakhapatnam, Andhra Pradesh	Retinopathy of Prematurity
Ms R Vijaya Laxmi	Visakhapatnam, Andhra Pradesh	Retinopathy of Prematurity
Dr Shymala Anand	Amaravathi, Maharashtra	Small Incision Cataract Surgery (SICS)
Mr Servesh Kumar	Mumbai, Maharashtra	Low Vision & Ocular Prosthesis
Mr Jinal Shah	Mumbai, Maharashtra	Low Vision & Ocular Prosthesis
Mr Usman Khan	Mumbai, Maharashtra	Low Vision & Ocular Prosthesis
Mr Miral Shah	Mumbai, Maharashtra	Low Vision & Ocular Prosthesis
Mr Sandeep Shah	Mumbai, Maharashtra	Low Vision & Ocular Prosthesis
Mr Altaj Virani	Mumbai, Maharashtra	Low Vision & Prosthesis
Ms Ekta Desai	Mumbai, Maharashtra	Low Vision & Prosthesis
Ms Reashall Arana	Mumbai, Maharashtra	Low Vision & Prosthesis
Mr Suresh Bantu	Mumbai, Maharashtra	Low Vision & Prosthesis
Ms Mili Naik	Mumbai, Maharashtra	Low Vision & Prosthesis
Ms Renu D Saklani	Mumbai, Maharashtra	Low Vision & Prosthesis
Dr Roshmi Gupta	Bangalore, Karnataka	Ocular Prosthesis
Dr Alexandros Stangos	Geneva, Switzerland	Rotation in all subspecialties
Dr K Padma	Hyderabad, Andhra Pradesh	Rotation in selected subspecialties
Dr N Naveena	Hyderabad, Andhra Pradesh	Rotation in selected subspecialties
Dr Chetan Gajanan Khutemate	Vidisha, Madhya Pradesh	Pediatrics
Dr R Ramesh	Tiruchirapalli, Tamil Nadu	Pediatrics
Mr Ibrahim Ansari	Mumbai, Maharashtra	Optometry
Dr Pallavi	Nagpur, Maharashtra	Eye Bank
Dr Pradeep Sane	Agra, Uttar Pradesh	Eye Bank
Dr Poonam Kishore	Lucknow, Uttar Pradesh	Eye Bank
Dr Tulika Kar	Tiruchirappalli, Tamil Nadu	Eye Bank
Mr Manoj Hajra	Kolkata, West Bengal	Eye Bank
Dr M Lakshmi	Chennai, Tamil Nadu	Eye Bank
Dr Mostafa Hossain	Sandhani, Bangladesh	Eye Bank
Dr M K Shreya	Jaipur, Rajasthan	Eye Bank
Dr Mahesh Agarwal	Jaipur, Rajasthan	Eye Bank
Mr Geo Hose	Angamaly, Kerala	Eye Bank
Dr Anand D	Bangalore, Karnataka	Eye Bank
Dr Jayanth Doshi	Vadodara, Gujarat	Eye Bank
Dr M Lakshmi	Chennai, Tamilnadu	Eye Bank
Dr Siddarth Kothari	Hyderabad, Andhra Pradesh	Eye Bank
Dr Ashraf Mohd Ibrahim Hassan	Hyderabad, Andhra Pradesh	Eye Bank
Dr K Pranathi	Raichur, Karnataka	Eye Bank
Dr Joy Mukhopadhyay	Durgapur, West Bengal	Eye Bank
Dr Mohammad Mostafa Hossain	Bangladesh	Eye Bank
Dr M K Shriya	Jaipur, Rajasthan	Eye Bank
Mr Naji Alamuddin	Beirut, Lebanon	Rotatory observership
Mr N Epapra	Hyderabad, Andhra Pradesh	Patient Care & Rehabilitation
Ms B Anuradha	Hyderabad, Andhra Pradesh	Patient Care & Rehabilitation

Observership

Name	Place	Subspecialty
Ms Basanti Das	Cuttack, Orissa	Patient Care
Ms Lopamudra Parija	Cuttack, Orissa	Patient Care
Dr Mohamed Khalaf	Giza, Egypt	Phacoemulsification
Dr Shafiq Jivanjee	New York, USA	Phacoemulsification
Dr Seema Lodha	Indore, Madhya Pradesh	Squint
Dr Shekhar Patil	Mumbai, Maharashtra	
Dr Aditya Prasad Rijal	Kathmandu, Nepal	WHO observership program
Dr Beena Shrestha	Kathmandu, Nepal	WHO observership program
Dr Nitin Kolte	Pune, Maharashtra	Oculoplasty
Dr Sirisha Senthil	Hyderabad, Andhra Pradesh	Oculoplasty & Pediatrics
Ms Annie	New Delhi	ROP Nursing

Other Eye Care Professional Training Programs

Candidates in other training programs too undergo a rigorous learning schedule, which includes lectures and demonstration classes, presentations to peers, seminars, and hands-on experience. The Education Centre also trains operation room technicians and nurses, patient counselors, maintenance, and housekeeping personnel.

Diploma in Community Eye Health

Name	Place	Duration	Category
Mr Janak Bahadur Chand	Pokhara, Nepal	6 months	Short-term
Mr Kailash Baviskar	Aurangabad, Maharashtra	6 months	Short-term
Ms Salomi Suvarnalatha	Chittoor, Andhra Pradesh	6 months	Short-term
Mr G Narayanaswamy	E Godavari, Andhra Pradesh	6 months	Short-term
Mr N Ch Venkateswara Rao	W Godavari, Andhra Pradesh	6 months	Short-term
Mr V V Suresh	Nellore, Andhra Pradesh	6 months	Short-term
Mr M Venkateshwarlu	Nalgonda, Andhra Pradesh	6 months	Short-term
Mr G Chandramouli	Kadapa, Andhra Pradesh	6 months	Short-term
Mr M Ramakrishna Das	Srikakulam, Andhra Pradesh	6 months	Short-term
Mr N Yesuratnam	Kadapa, Andhra Pradesh	6 months	Short-term
Mr K Reddeppa Reddy	Chittoor, Andhra Pradesh	6 months	Short-term
Mr M Aseervadam	Guntur, Andhra Pradesh	6 months	Short-term
Mr Amba Dass	Medak, Andhra Pradesh	6 months	Short-term
Mr Chinna Gopalaiah Y	Kurnool, Andhra Pradesh	6 months	Short-term
Mr D G Maheswara Rao	Krishna, Andhra Pradesh	6 months	Short-term
Dr Edith Pola	Zambia, Africa	6 months	Short-term
Mrs Lalitha Raghuram	Hyderabad, Andhra Pradesh	3 months	Short-term
Mr Gopal Krishna Karmacharya	Kathmandu, Nepal	2 weeks	Short-term

Low Vision Care

Mr Dhaneshwar Deka	Sirohi, Rajasthan	3 months	Short-term
Ms Deepa Gada	Mumbai, Maharashtra	3 months	Short-term
Ms Hiral Dholakia	Mumbai, Maharashtra	3 months	Short-term
Mr Hari Bahadur Thapa	Lumbini Zone, Nepal	3 months	Short-term
Mr Mandir Singh Dang	Ahmedabad, Gujarat	3 months	Short-term
Mr Durgesh Raj Pant	Pokhara, Nepal	3 months	Short-term
Mr Sandeep Ambala Solanki	Dar Es Salaam, Tanzania	3 months	Short-term

Vision Rehabilitation

Name	Place	Duration	Category
Ms D Rama Prabha	Tiruchirapalli, Tamil Nadu	3 months	Short-term
Ms Jeyaseeli Flora	Tiruchirapalli, Tamil Nadu	3 months	Short-term
Ms Sukhalatha	Mangalore, Karnataka	3 months	Short-term
Ms Bhavana Dedhia	Mumbai, Maharashtra	1 month	Short-term
Ms Deepa Gada	Mumbai, Maharashtra	1 month	Short-term
Ms Emmadi Swapna	Hyderabad, Andhra Pradesh	1 month	Short-term

Eye Bank Technicians

Mr Satya Dev Jain	Jaipur, Rajasthan	3 months	Short-term
Mr Dharmendra Kumar Dewangan	Raipur, Chattisgarh	3 months	Short-term
Mr Kanta Ram	New Delhi	3 months	Short-term
Mr Badri Prasad	New Delhi	3 months	Short-term
Mr Rajendra Chauragade	Nagpur, Maharashtra	3 months	Short-term
Mr Satish Balasaheb	Pune, Maharashtra	3 months	Short-term
Ms Joshi Nisha M	Navsari, Gujarat	3 months	Short-term
Mr Umakant Natvarlal Rana	Vadodara, Gujarat	3 months	Short-term
Mr AKM Jasimuddin	Dhaka, Bangladesh	3 months	Short-term
Mr Tapash Karmakar	Siliguri, West Bengal	3 months	Short-term
Mr Thoti Guru Kumar	Tirupati, Andhra Pradesh	3 months	Short-term
Mr Prabhakar Singh	Lucknow, Uttar Pradesh	3 months	Short-term
Mr Mridul Kumar Mishra	Shahjahanpur, Uttar Pradesh	3 months	Short-term
Mr Shri Om Gupta	Rampur, Uttar Pradesh	3 months	Short-term
Mr Monjur Quadir Akhund	Bangladesh	3 months	Short-term
Mr Thankachan Thomas	Angamaly, Kerala	3 months	Short-term

Eye Donation Counsellors

Ms Shameema Rehman	Dhaka, Bangladesh	1 month	Short-term
Mr Sunil Ramdad Fudke	Nagpur, Maharashtra	1 month	Short-term
Mr Thokale Aba Barikram	Pune, Maharashtra	1 month	Short-term
Mr Umesh Suresh Pawar	Pune, Maharashtra	1 month	Short-term
Ms Namita Mishra	Bhubaneswar, Orissa	1 month	Short-term
Mr Manmohan Singh Lamba	New Delhi	1 month	Short-term
Mr Niranjana Vyas	Vadodara, Gujarat	1 month	Short-term
Mr Dharmendra Kumar Dewangan	Raipur, Chattisgarh	1 month	Short-term
Mr Rama Krishna	Hyderabad, Andhra Pradesh	1 month	Short-term
Mr Milind Gautam	Lucknow, Uttar Pradesh	1 month	Short-term
Mr Ravi Shankar	Lucknow, Uttar Pradesh	1 month	Short-term
Ms Shilly Joseph	Angamaly, Kerala	1 month	Short-term
Mr Sujoy Paul	Kolkata, West Bengal	1 month	Short-term
Mr Arindam Banerjee	Kolkata, West Bengal	1 month	Short-term
Mr Mahabhashnu Sarma Mandal	Kolkata, West Bengal	1 month	Short-term
Mr Subrata Das	Kolkata, West Bengal	1 month	Short-term
Mr Pankaj Kumar Sinha	Siliguri, West Bengal	1 month	Short-term

Eye Bank Managers

Mr Satish	Chennai, Tamilnadu	1 week	Short-term
Mr K Sumithra	Chennai, Tamilnadu	1 week	Short-term
Ms Uma M	Tiruchirapalli, Tamil Nadu	1 week	Short-term
Mr K Venkeshwar	Hyderabad, Andhra Pradesh	1 week	Short-term
Mr P Umachand	Hyderabad, Andhra Pradesh	1 week	Short-term
Mr G Ganesh	Hyderabad, Andhra Pradesh	1 week	Short-term
Ms Ira Sharma	Jaipur, Rajasthan	1 week	Short-term
Mr Geo Jose	Angamaly, Kerala	1 week	Short-term
Mr Jagdish Sharma	Noida, Uttar Pradesh	1 week	Short-term
Mr Manas Chakraborty	Kolkata, West Bengal	1 week	Short-term

Eye Care Management Trainees (1 year program)

Mr Shyamanta Bijoy Neog	Chandra Prabha Eye Hospital, Jorhat, Assam
Mr M S D Arun Dev	Kuchukulla Ramachandra Reddy Eye Hospital, Toodukurthy, Andhra Pradesh
Mr S Naresh Rao	Bhosle Gopal Rao Patel Eye Centre, Mudhol, Andhra Pradesh
Mr Sudheer Kumar	Bhosle Gopal Rao Patel Eye Centre, Mudhol, Andhra Pradesh
Mr Majeti Venkata Maruthi	Venkata Lakshmi Eye Centre, Karamchedu, Andhra Pradesh
Mr S Kalyan Bharadwaz	Venkata Lakshmi Eye Centre, Karamchedu, Andhra Pradesh
Mr A Vijay Kumar	Lions Eye Hospital, Moula Ali, Andhra Pradesh
Ms R Yasholatha	Lions Eye Hospital, Suryapet, Andhra Pradesh
Ms K Latha Madhuri	Lions Eye Hospital, Proddatur, Andhra Pradesh

Hospital Management Team Training Programs

Little Flower Hospital, Angamaly, Kerala

Mr Mathachan Paul	Finance
Ms Joby V J	Medical Records Department
Mr Praveen Revindran	Information Services Department
Sr Beena M S J	Patient Care
Ms Binitha Seby	Patient Care
Ms Simi Jose	Patient Care

Chandra Prabha Eye Hospital, Jorhat, Assam

Ms Rupshikha Sharma	Ophthalmic Nurse
Ms Saraswati Borah	Ophthalmic Nurse
Ms Julekha Begum	Ophthalmic Nurse

Bilaspur Eye Centre, Bilaspur, Chattisgarh

Mr Shashank Gupta	Stores & MRD
Mr Ravi Kumar Patel	Maintenance & Bio Medical
Mr Vikram Soni	Outpatient Counsellor
Mr Prakash Kumar Sahu	Theater Technician
Ms Lata M	Patient Counsellor

MGM Hospital, Raipur, Chattisgarh

Mr Aas Deo	Operation room technician
Mr Vijendra Jaiswal	Purchase Assistant
Mr Prakash Kumar Sahu	Stores Assistant
Mr Bhupesh Chandrakar	Medical Record Assistant
Mr Verghese	Medical Records administrator
Mr Anil Kumbhkar	Lab Technician
Mrs Girja Dahare	Housekeeping supervisor
Ms Jyotirmay Mazumdar	HRD Assistant
Ms Aastha Brajpuria	Patient Counselor
Ms Neelu Gavanday	Patient Counselor
Ms Supriya Das	Patient Counselor
Ms Dolly Shende	Patient Counselor
Ms Nasim Banu	Patient Counselor
Ms Monika Rao E	Patient Counselor
Ms Nikhita Kohli	Patient Counselor
Ms Khusboo Naidu	Patient Counselor
Mr Sandeep Kumar	Patient Counselor
Mr Sandeep Barammal	Accounts Assistant
Mrs Bindu Jacob	Patient care administrator
Mr Vishnu Ramdruv	Maintenance technician
Mr Yogesh Kumar Rane	Biomedical technician
Mr Syed Rehan Ahmed	Personnel Assistant
Ms N Salomi	Nursing Supervisor

Indore Eye Hospital, Indore, Madhya Pradesh

Mr Umesh Parashar	Administrative - Fellow
Ms Pratiksha Singh	Administrative - Fellow
Ms Gunjan Saxena	Administrative - Fellow

Assumption Hospital, Palakkad, Kerala

Sr Agi	Patient Care Manager
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Community Based Rehabilitation (CBR) Program in Andhra Pradesh**Sight Savers International Partner - Sanghamithra, Medak district**

Mr Desabathula Venkata Ramana	Co-ordinator
Mr Kukkadev Muthyalu	Supervisor
Mr Koppunoori Veerappa	Supervisor
Mr Gajan Srikanth	CEH Worker
Mr Yeldurthi Kondal Goud	CEH Worker
Mr Pemberthi Laxman	CEH Worker
Ms Rukhsana Sultana	CEH Worker
Ms Shabana	CEH Worker
Ms Getu Vinoda	CEH Worker
Mr Ch Kondal Reddy	CEH Worker
Ms Kulupula Anasuya	CEH Worker
Mr Pulaboina Devanand	CEH Worker

Venkata Laxmi Eye Centre, Karamchedu, Prakasam district (LVPEI satellite)

Mr Gummanampati Srinivasa Rao	CEH Worker
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St. Gregorius Balagram Eye Hospital, Yacharam, Ranga Reddy district (OEU partner)

Mr Mohammed Chand Pasha	CEH Worker
Mr Guduru Mahender	CEH Worker
Mr Manchineela Sridhar	CEH Worker

Bhosle Gopal Rao Patel Eye Centre, Mudhol, Adilabad district (LVPEI satellite)

Mr Maggidi Sridhar	CEH Worker
Mr Sankamble Babu Rao	CEH Worker

Rotary Eye Hospital, Proddatur, Cuddapah district

Ms Beulah Veparala	Out patient Counsellor
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Lions Eye Hospital, Balanagar, Hyderabad

Ms Nagamani, Hyderabad	Ophthalmic Nurse
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OBSERVERSHIP**Administrative Staff College of India - Hinduja Institute of Healthcare Management**

Dr Annapurna	Hyderabad, Andhra Pradesh
Dr Zubin Pereira	Hyderabad, Andhra Pradesh
Ms Anita	Hyderabad, Andhra Pradesh
Mr Srikant	Hyderabad, Andhra Pradesh
Mr Harsha B Wari	Hyderabad, Andhra Pradesh
Mr D V Krishnakanth	Hyderabad, Andhra Pradesh

Birla Institute of Technology & Science (BITS), Pilani - Practice School Program

Ms Debarati Mukherjee	Pilani, Rajasthan
Ms Anusha K	Pilani, Rajasthan
Ms Sruthi Y	Pilani, Rajasthan
Mr Mahesh Tejagogineni	Pilani, Rajasthan
Ms Medha Kabra	Pilani, Rajasthan
Ms Sindhura	Pilani, Rajasthan

Ophthalmic Nursing Assistants

Himshikha Sharma	Hyderabad, Andhra Pradesh
M Suma Latha	Hyderabad, Andhra Pradesh
Preethi Rachana	Hyderabad, Andhra Pradesh
Sh Haseena	Hyderabad, Andhra Pradesh
M Laxmi	Hyderabad, Andhra Pradesh
Y Divya	Hyderabad, Andhra Pradesh
Aruna Erra	Warangal, Andhra Pradesh
R Geetha	Chittoor, Andhra Pradesh
T Jhansi Bai	Chittoor, Andhra Pradesh
B Sri Devi	East Godavari, Andhra Pradesh
M Haritha	Karimnagar, Andhra Pradesh
B Naga Lakshmi	Guntur, Andhra Pradesh

Ophthalmic Nurses

Smt Thahera	Hyderabad, Andhra Pradesh
Smt Saritha	Hyderabad, Andhra Pradesh
V Radha Devi	Kadapa, Andhra Pradesh
B Sarada	Karamchedu, Andhra Pradesh

Bio-medical Training

Mr Thota Sai Babu	Hyderabad, Andhra Pradesh	3 months	Short-term
Mr K Sanjeeva	Hyderabad, Andhra Pradesh	3 months	Short-term
Mr Nayeem Pasha	Hyderabad, Andhra Pradesh	3 months	Short-term
Mr Shaik Chand Basha	Narasaraopet, Andhra Pradesh	3 months	Short-term
Mr Bala Gangadhara Raju	Srikakulam, Andhra Pradesh	3 months	Short-term

Optometry Training Programs

The optometry education programs for a bachelor's degree and the ophthalmic technician's training programs are conducted at the Bausch & Lomb School of Optometry at LVPEI's Kismatpur campus. They include internship at LVPEI.

Bachelor of Science in Optometry

Name	Place	Duration	Category
Mr Srikanth S	Chennai, Tamil Nadu	4 years	Long-term
Mr Kolanu Sailesh	Hyderabad, Andhra Pradesh	4 years	Long-term
Ms Sameera Sultana	Hyderabad, Andhra Pradesh	4 years	Long-term
Ms Pasnoor Samhita Rao	Hyderabad, Andhra Pradesh	4 years	Long-term
Mr Roshan Abbas	Vijayawada, Andhra Pradesh	4 years	Long-term
Ms Athira Rose	Kottayam, Kerala	4 years	Long-term
Ms Ankita Agarwal	Lucknow, Uttar Pradesh	4 years	Long-term
Mr Saripelly Vijaykiran	Hyderabad, Andhra Pradesh	4 years	Long-term
Mr Viswanathan G R	Chennai, Tamil Nadu	4 years	Long-term
Mr Joshi Karan Arvind	Ahmedabad, Gujarat	4 years	Long-term
Mr Vinay Swaroop Balla	Kakinada, Andhra Pradesh	4 years	Long-term
Mr A Riyazudeen	Chennai, Tamil Nadu	4 years	Long-term
Ms Waseem Fatima	Hyderabad, Andhra Pradesh	4 years	Long-term
Ms P Shailaja	Wanaparthy, Andhra Pradesh	4 years	Long-term
Ms K Swathi	Hyderabad, Andhra Pradesh	4 years	Long-term
Mr Sureshkumar Ramavath	Suryapet, Andhra Pradesh	4 years	Long-term
Ms M Uma	Wanaparthy, Andhra Pradesh	4 years	Long-term
Ms Tekmal Swathi	Hyderabad, Andhra Pradesh	4 years	Long-term
Ms K Lavanya Rekha	Hyderabad, Andhra Pradesh	4 years	Long-term
Mr Yashwanth Goud M	Wanaparthy, Andhra Pradesh	4 years	Long-term
Mr B Chandrasekhar Azad	Hyderabad, Andhra Pradesh	4 years	Long-term
Mr Potluri Hareesh	Hyderabad, Andhra Pradesh	4 years	Long-term

Optometry Fellowship

Name	Place	Duration	Category
Mr Anurag Singh Tomar	Hardoi, Uttar Pradesh	2 years	Long-term
Mr Mukesh Kumar	Pali, Rajasthan	2 years	Long-term
Mr A Paul Augustine	Vellore, Tamilnadu	2 years	Long-term
Mr Sachin Gupta	Aligarh, Uttar Pradesh	2 years	Long-term
Mr Santosh Gouda Patil	Belgaum, Karnataka	2 years	Long-term
Mr D Shanmuga Prasad	Vellore, Tamil Nadu	2 years	Long-term
Mr Ardhendu Maity	Midnapore, West Bengal	2 years	Long-term
Mr Debarshi Datta	Midnapore, West Bengal	1 year	Long-term
Mr Bhavneet Sahn	New Delhi	1 year	Long-term
Mr Nijesh R Shah	Mumbai, Maharashtra	1 year	Long-term

Preceptorship

Ms Renee Martonhelyi	Melbourne, Australia
Mr Benjamin Yap	Melbourne, Australia
Ms Anna Lyn Morse	Brisbane, Australia
Ms Melodie Trunbull	Brisbane, Australia
Ms Emma Richards	Brisbane, Australia
Mr Duy Dinh	Queensland University of Technology Brisbane, Australia
Ms Ada Tsigounis	Queensland University of Technology Brisbane, Australia
Ms Fiona Jane Moss	Queensland University of Technology Brisbane, Australia
Ms Lindsay Anne McGrath	Queensland University of Technology Brisbane, Australia
Mr Braden Douglas Meiklejohn	Queensland University of Technology Brisbane, Australia
Ms Renee Irene Michaels	Queensland University of Technology Brisbane, Australia
Ms Tuba Khalil Allahwala	University of New South Wales, Sydney
Ms Angel Hu	University of New South Wales, Sydney
Ms Cassie Lin	University of New South Wales, Sydney
Ms Trinh Nguyen	University of New South Wales, Sydney
Mr Byoung Sun Chu	University of New South Wales, Sydney

Vision Technician (1 year program)

Name	Sponsor	Place
Mr Parash P Hazarika	Dr Bardoloi Clinic	Assam
Mr Netra Hazarika	Dr Bardoloi Clinic	Assam
Mr Ramdas Laxman Gore	Sunder Netralaya	Ahmednagar
Mr T Akesh Babu	VLEC	Karemchedu, Andhra Pradesh
Ms Laksmi Prasanna	VLEC	Karemchedu, Andhra Pradesh
Mr K Srinivas Rao	VLEC	Karemchedu, Andhra Pradesh
Mr N Ranganayakulu	VLEC	Karemchedu, Andhra Pradesh
Mr Eshwar Sagar	KRREC	Thoodukurthy, Andhra Pradesh
Mr K Naganath Reddy	KRREC	Thoodukurthy, Andhra Pradesh
Mr Appala Raju	KRREC	Thoodukurthy, Andhra Pradesh
Mr K Malleesh	KRREC	Thoodukurthy, Andhra Pradesh
Ms Ramya	M S Reddy Lions Eye Hospital	Moulali, Andhra Pradesh
Ms Sri Vani	Bhosle Gopal Rao Patel Eye Centre	Mudhol, Andhra Pradesh
Mr Mohd Rafi	Bhosle Gopal Rao Patel Eye Centre	Mudhol, Andhra Pradesh
Mr Prashanth	Bhosle Gopal Rao Patel Eye Centre	Mudhol, Andhra Pradesh
Mr Louli Deva Kumar	OEU, Canada	Sompeta, Andhra Pradesh
Mr D Suresh Kumar	OEU, Canada	Sompeta, Andhra Pradesh
Mr Balraj Kumar Singh	ORBIS	New Delhi
Mr Jaya Narayan Kushwaha	SNC	Madhya Pradesh
Mr Bernardino Pires	ICEE	Australia
Mr Lazaro Costa da Canceicao	ICEE	Australia
Mr Honorio Henriques Xavier	ICEE	Australia
Ms Sister Hamwiinga	Fred Hollows Foundation	New Zealand

Vision Technician (1 year program)

Name	Sponsor	Place
Ms Anitha John	Fred Hollows Foundation	New Zealand
Ms Priscilla Drikori	Fred Hollows Foundation	New Zealand
Mr Sarath Chandra	Lions/ICARE	Hyderabad, Andhra Pradesh
Mr Shiva Kumar G	Dr Umesh Megur	Bidar, Karnataka
Mr Suvaas	Dr Umesh Megur	Bidar, Karnataka
Sister Piusha	OEU*	Angamaly, Kerala
Ms Padam Shree Bais	OEU*	Indore, Madhya Pradesh
Ms Meena Kade	OEU*	Indore, Madhya Pradesh
Mr Nimesh Kumar	OEU*	Chandausi, Uttar Pradesh
Mr Anil Kumar	OEU*	Chandausi, Uttar Pradesh
Mr T Sudhir Kumar	ICARE	Nidadavole, Andhra Pradesh
Ms G Nagamani	ICARE	Nidadavole, Andhra Pradesh
Ms Sri Rama Lakshmi	ICARE	Nidadavole, Andhra Pradesh
Ms L Radhika	OEU*/ICARE	Sompeta, Andhra Pradesh
Mr Mohana Behara	OEU*/ICARE	Sompeta, Andhra Pradesh
Mr Upender	Lions/ICARE	Suryapet, Andhra Pradesh
Mr Veera Babu	Lions/ICARE	Suryapet, Andhra Pradesh
Mr Ch Rajyam	ICARE	Mudhol, Andhra Pradesh
Mr B Praveen Kumar	ICARE	Mudhol, Andhra Pradesh
Ms Ganga Bhavani	ICARE	Karemchedu, Andhra Pradesh
Ms Y Lalitha	ICARE	Karemchedu, Andhra Pradesh
Mr Y Srinivasa Rao	ICARE	Karemchedu, Andhra Pradesh
Mr M Suresh Babu	ICARE	Proddatur, Andhra Pradesh
Mr P Suresh Babu	ICARE	Proddatur, Andhra Pradesh

*OEU: Operation Eyesight Universal, Canada

First Graduation Day at Bausch & Lomb School of Optometry

The Institute came together in a show of strength and pride to host the first Graduation Day ceremony at the Bausch & Lomb School of Optometry in a grand manner on November 28, 2004. The program began with Prof Ravi Thomas, Director, welcoming the guests, staff, and students. Dr Kiran Mazumdar-Shaw, chief guest, spoke with hope and faith to inspire the outgoing graduates. Among the other speakers were Mr John Loughlin, president, Bausch & Lomb, Asia – Pacific, Prof Brien Holden of the University of New South Wales, Australia, Dr Gullapalli N Rao, and Prof Coen de Jong, Principal of the School of Optometry.

B S Optometry degrees: The Bachelor of Science degree certificates for the first batch of students were distributed by Prof S Venkateswaran, Vice Chancellor of BITS, to which the B&L School is affiliated. Five students were awarded distinction, four students were placed in the first division and one in the second division.

Best outgoing student: Ms Marella Manjula won the best outgoing student award, based on her overall results for the four-year course. She received a glass artwork made by LVPEI's artist-in-residence, Mr Sisir Sahana, which was



Class of 2004

presented by Prof Desmond Fonn of the University of Waterloo, Canada. The top five students during the internship were: Ms Archana Srinivas, Mr Ankit Mathur, Ms Garima Tyagi, Mr J Ganesh Babu and Ms M Manjula. All of them received certificates from Prof Fonn.

One of the graduating students has been selected for a Vision CRC fellowship by the University of New South Wales, Australia, while eight others have become part of L V Prasad Eye Institute's optometry team.

Diploma in Ophthalmic Techniques (DOT): Prof Brien Holden distributed the Fellow of Ophthalmic Research Centres (FOREC) diplomas in Ophthalmic Techniques to the DOT students, as well as certificates of participation for the first two years of the B S Optometry course.

Carl Zeiss Scholarships

The first ranker of each class received a Carl Zeiss scholarship. The names of students for the academic year 2003-2004 were declared by Mr Ulrich Krauss, President & CEO, Carl Zeiss Meditec, Germany, on August 19, 2004. Scholarships for the other students were distributed by the BLSO Principal on August 21, 2004.

The students who received scholarships were:

Batch 2001: Ms Preeti Gupta, Mr Vinod Kumar, Ms L Deepthi, Mr A Baskar and Mr Ch Naveen Kumar

Batch 2002: Mr Jit Bahadur Ale, Mr Ravindra, Ms Jaya Dantam, Ms Sarah Baig and Ms Sethumathi

Batch 2003: Ms Sen Paulami Ashoke, Mr Sumit Kumar, Ms Sneha Kataria, Ms Kalika Bandawar and Mr Varadaan Sood

Batch 2004: Ms K Swathi, Mr G R Viswanathan, Ms K Lavanya Rekha, Mr Suresh Kumar, Ms P Shailaja and Mr K Sailesh (shared scholarship)

Other Events

Traditional Day Festival: For the first time students organized a Traditional Day festival on August 19, 2004, where all the students and staff wore traditional costumes. The evening was full of dancing and festivities.

- ◆ A conference was conducted at the School of Optometry on April 5, 2004, where Prof Brien Holden, Prof Debbie Sweeney, Mr Tracy Williams and Ms Laxmi Shinde spoke.

- ◆ The second year B S Optometry & Diploma students visited the laboratory of the Tectran PolyLens manufacturing unit at Bonthapally, Andhra Pradesh, on May 4 and May 6, 2004.

Bausch & Lomb National Rolling Trophy Quiz: The final round of the Bausch & Lomb Quiz Contest for optometry students was conducted at New Delhi on December 26, 2004. The winners of the regional rounds included teams from the Calcutta School of Optometry, Lions School of Optometry, Delhi, Bharatiya Vidyapith, Pune, and Bausch & Lomb School of Optometry, LVPEI, Hyderabad. The BLSO team with Mr M Vinod Kumar, Mr Jeet Bahadur Ale and Ms Jaya Dantam came a close second to the winning Pune team. Prof Coen de Jong gave away the trophy and other prizes.

World Sight Day programs: The Vision Technician students actively participated in the World Sight Day programs at Vidyaranya High School, Hyderabad, during October 14 – 15, 2004.

Career Fair

Many students participated in the Career Fair, organized by the Rotary Club from January 20 – 21, 2005. High school students were given information regarding choices available to them after the X and XII standard.

Resource Center

The Resource Center procured some new books, as well as bound volumes of books and journals donated by the Victorian College of Optometry, Australia. Apart from regular visitors many people came from far to access the resource centre. The staff trained users anyhow to work with databases like PubMed to retrieve information and collected articles for its users from various sources.

Seminars and Workshops

The Institute offers comprehensive educational programs on the latest trends in the surgical and medical treatment of eye disorders. Eye care professionals from all over India and other countries participate in these programs.

An international eye health symposium **Technology to Trends: Perspectives on Research and Practice in Ophthalmology** was organized from April 3-5, 2004. The symposium focussed on sea changes in eye care over the last five decades due to technical and technological inventions and innovations, especially in the management of cataract. The program was attended by ophthalmologists from across India; the faculty constituted some of the most eminent global names in ophthalmology.

The **Indian Contact Lens Education Program**, conducted from July 1-5, 2004, was attended by 91 delegates and sponsored by Bausch & Lomb.

A hands-on **Workshop in Ocular Electrophysiology**, organised by the International Society for Clinical Electrophysiology of Vision (ISCEV), was conducted on August 27-28, 2004. The workshop was attended by 66 participants.

An interactive **PK (Penetrating Keratoplasty) Patient Workshop** was held for corneal transplant patients and families of corneal donors on September 20, 2004. The workshop was organized by LVPEI under the aegis of ORBIS International, USA, and Eye Sight International, Canada.

A **Low Vision Awareness Program** was conducted from October 1-3, 2004. Sir Ratan Tata Trust, Mumbai, sponsored the program, which had 25 participants.

The **Advanced Indian Contact Lens Education Program (ICLEP) – 2004** was conducted from November 29-30, 2004. Among the faculty were Prof Brien Holden from the University of New South Wales, Australia, and Prof Des Fonn from the University of Waterloo, Canada.

The **Basic Course** of the **33rd Indian Contact Lens Education Program (ICLEP)** was conducted from December 1-3, 2004. There were 80 participants in the program, including senior students of the BS Optometry course from the Bausch & Lomb School of Optometry, LVPEI.

The **Hospital Based Program (HBP)** was organised under the ORBIS-ESI-LVPEI project on Eye Banking and Corneal

Transplantation from December 6-11, 2004. Dr Richard Casey, Chief, Cornea Centre, Jules Stein Eye Institute, Charles R Drew University of Medicine & Science, Los Angeles, USA, was the resource faculty.

A 5-day **Paramedical Ophthalmic Assistants Refresher Course** was held from January 17-21, 2005, at ICARE–LVPEI, Kismatpur campus. It was supported by the Andhra Pradesh Right To Sight Society.

A workshop on **National Orientation Module for Optometrists** was held from January 20-21, 2005. Thirty participants attended the workshop.

The first **Rotary Cataract Initiative Workshop** was held from January 24-25, 2005. It was organized by ICARE – LVPEI, Rotary International and Operation Eyesight Universal, Canada. Nineteen institutions participated in the workshop, which was attended by 40 delegates.

The first **Patient Information Forum** on LASIK was held on January 26, 2005. The overwhelming response led to the second Information Forum on February 27, 2005. About 300 people attended the two seminars, and approximately 100 persons registered for LASIK screening.

A **Weekend Workshop on Communication Skills** was conducted for ophthalmology and optometry fellows from January 29-30, 2005, by Dr Usha Raman, Scientific Editor, LVPEI.

The **Operation Eyesight Universal Networking Workshop 2005** was held from February 2-5, 2005. It was sponsored by Operation Eyesight Universal, Canada.

The **ARVO US – Indo Workshop on Collaborative Research** was held at LVPEI from February 9-13, 2005. It was sponsored by the National Eye Institute, USA, and organized jointly by LVPEI and the Association for Research in Vision and Ophthalmology (ARVO), United States. Sixty delegates from eminent eye institutes and hospitals across the world attended the workshop.

The second **Rotary Cataract Orientation Program** was held from February 25-26, 2005. It was organized by ICARE – LVPEI, Rotary International and Operation Eyesight Universal, Canada. Sixteen institutions participated in the workshop with 50 delegates attending.

Worldwide Expertise



The wide network LVPEI has established with institutions and organizations worldwide enables us to draw on an international resource base of senior consultants and experts in every field of eye care. The eminent faculty who delivered lectures at LVPEI during the year were:

Dr Sai B Gandham, Director, Glaucoma Service, Albany Medical College Lions Eye Institute, Albany, New York, spoke on *Aqueous humor dynamics* on May 7, 2004.

Dr Radharamadevi, Head of Diagnostics, Centre for DNA Fingerprinting and Diagnostics, Hyderabad, spoke on *Genetic counselling* on May 12, 2004.

Dr Joga Rao, Consultant Pathologist, ELBIT Diagnostic Centre, Hyderabad, spoke on *MRI of the eye and orbit* on May 29, 2004.

Prof Detlef Prozesky, Director, Centre for Health Science Education, Faculty of Health Sciences, University of the Witwaters, Johannesburg, South Africa, spoke on *Qualitative research and its application to eye health care* on June 2, 2004.

Prof Deborah Sweeny, Associate Professor & CEO, Vision Cooperative Research Centre (Vision CRC), Australia, spoke on *Complications of contact lenses* on June 25, 2004. She also spoke on *Vision CRC and LVP* on June 28, 2004.

Dr L T Kishore, Department of Radiology, CARE, Hyderabad, spoke on *MRI of eye and orbit* on June 30, 2004.

Prof K V Chalam, University of Florida, Jacksonville, USA, spoke on *Vitreous surgery – tips & tricks* on July 3, 2004.

Dr Vijaya Musini, British Columbia School of Public Health, Vancouver, Canada, spoke on *How to do a systematic review according to the Cochrane Collaboration Format* on August 7, 2004.

Dr Takeshi Iwata, Laboratory Chief, Ophthalmology, National Centre for Sensory Organs, Tokyo, Japan, spoke on *Age related macular degeneration* on August 19, 2004.

Dr Chris Hogg, Faculty, Department of Electrophysiology, Moorfields Eye Hospital, UK, spoke on *Flashes, colours & patterns* on August 27, 2004.

Dr Graham Holder, Director, Department of Electrophysiology, Moorfields Eye Hospital, UK, spoke on *Beyond the ISCEV standard: extended ERG techniques in clinical diagnosis* on August 28, 2004.

Dr Ulrich Kellner, Siegburg, Germany, spoke on *Can an ophthalmologist practice medical retina without electrophysiology* on August 31, 2004.

Prof Shlomo Melamed, Head, Sam Rothberg Glaucoma Center, Sheba Medical Center, Tel Hashomer, Israel, spoke on *Golden shunt implantation to supra-ciliary space in glaucoma* on September 27, 2004, and on *The use of SLT in glaucoma* on September 28, 2004.

Prof Suresh R Chandra, University of Wisconsin Medical School, Madison, Wisconsin, USA, spoke on *The aging eye and nutrition*, September 30, 2004.

Dr Rajat Agrawal, Consultant, Doheney Retina Institute, Los Angeles, USA, spoke on *Current status of the artificial retina project* on December 20, 2004.

Dr Anand Swaroop, Professor of Visual Sciences & Human Genetics, University of Michigan, Michigan, USA, spoke on *Genetics of age related macular degeneration* on March 14, 2005.

Dr John Heckenlively, Professor of Ophthalmology, Kellogg Eye Centre, Michigan, USA, spoke on *Update on retinal dystrophies* on March 15, 2005.

General lectures

Dr Shantha Sinha, Magsaysay award winner 2003 and Professor, Department of Political Sciences, University of Hyderabad, spoke on *Empowering the girl child through education* on April 14, 2004.

Dr Usha Raman, Editorial Consultant, LVPEI, spoke on *The language of science* on June 9, 2004.

Mr Ashish Pittie, President, Birdwatchers' Society of AP, spoke on *Birds in an urban environment* on July 14, 2004.

Dr Subhash Kaul, Professor, Department of Neurology, Nizam's Institute of Medical Sciences, Hyderabad, India, spoke on *Brain attack* on September 8, 2004.

Dr Nirupama Prakash, Associate Professor in Humanities, Birla Institute of Technology, Pilani, spoke on *Issues and challenges in women's health* on October 1, 2004.

Dr Sarita Reddy, disability rights advocate, Athens, Georgia, USA, spoke on *Advocacy in the disability sector* on November 3, 2004.

Mr K Ram Sharma, systems analyst and computer consultant, Hyderabad, spoke on *Ambulance navigation through city traffic* on December 8, 2004.

Dr Hanna Anandraj, Reader, Rhoda Mistry College of Social work, Hyderabad, spoke on *A first hand account of the extent of damages in the Tsunami hit regions with an overview of the social rehabilitation that is under way* on February 9, 2005.

Dr Sunitha Krishnan of Prajwala, an organisation working against trafficking of women and children, spoke on *Challenges we as a society face in dealing with the issue of human trafficking* on March 9, 2005.

Eye Research

Prof Brien Holden Eye Research Centre

The Hyderabad Eye Research Foundation (HERF) administers both basic and clinical research at L V Prasad Eye Institute (LVPEI). It continues to compete and receive grants from all over the world to conduct cutting edge research on the eye. Its Prof Brien Holden Eye Research Centre (BHERC) investigates the causes and treatment strategies through its various components, namely the Jhaveri Microbiology Centre, the Saroja A Rao Immunology Laboratory, the Kallam Anji Reddy Molecular Genetics laboratory, the Sudhakar and Sreekanth Ravi Stem Cell Laboratory, and the clinical research laboratories.

An important initiative this year was the setting up of a joint US-India collaborative program on eye research, partnered by the Association of Research in Vision and Ophthalmology (ARVO), USA, and funded by the National Eye Institute (NEI), USA, and the Department of Biotechnology (DBT), Government of India. This initiative was promoted through two workshops, one at LVPEI, Hyderabad, in February 2005 and the other at Fort Lauderdale, USA, in April 2005. The participants comprised eye researchers from leading eye institutes of both countries, who deliberated on five major themes – molecular genetics of eye diseases, clinical aspects of genetic eye diseases, harmonization of clinical measurement techniques, identification and exchange of resources and translational physiology from 'bench to bedside' applications.

The Indian workshop was conducted in the style of a catalyst meeting where discussions led to the identification of some potential areas for collaboration. The US workshop was built on follow-up discussions to identify viable collaborative opportunities at individual and institutional levels. One of the major projects related to studying the ocular genome and phenome, also called the Human Oculome Project. Another 20 collaborative project proposals were presented, which will be written up for funding by the National Institutes of Health, USA.

Support and recognition

As before, this past year too research at LVPEI has concentrated on molecular genetics of inherited eye diseases, devising molecular diagnostics for early detection, microbiology of eye infections, biochemical features of cataract, and stem cell technology for reconstruction of the damaged ocular outer surface.

These research projects are supported by the Department of Biotechnology (DBT), Department of Science and Technology (DST), Council of Scientific & Industrial Research (CSIR), and the Indian Council of Medical Research (ICMR) – all from India, as well as the National Eye Institute (NEI, National Institutes of Health), USA, and Vision CRC of Australia.

The Institute is also recognized by the University of Hyderabad, Hyderabad; Birla Institute of Technology & Science (BITS), Pilani; and the University of New South Wales, Sydney, Australia. This enables research scholars from LVPEI to register with, and obtain their Ph D degrees from, these universities. Collaborative research agreements have been forged with national laboratories such as the Centre for Cellular & Molecular Biology (CCMB), Centre for DNA Fingerprinting & Diagnostics (CDFD), and the Indian Institute of Chemical Technology (IICT), all at Hyderabad. The agreements allow researches at LVPEI to access state-of-the-art equipment and sophisticated facilities at these centres.

Clinical Research

LVPEI's multidisciplinary clinical research is of international standards and is sponsored by Indian funding agencies and multinational companies from USA and France. The group conducts not only intramural clinical research, but also participates in multicentre clinical trials. Some of the notable clinical studies in the last couple of years are: the use of fluocinolone acetonide implant in chronic uveitis and diabetic macular edema, and the use of povidone iodine and azithromycin in acute conjunctivitis.

Clinical research has pursued the study of the suitability of using extended wear contact lenses. This involves recruitment of human volunteers, and monitoring their comfort and related factors upon the use of contact lenses over a period of time. Another area of study was the efficacy, pharmacodynamics and related features of ophthalmic drugs and antibiotics. Many of the studies are conducted in collaboration with leading pharmaceutical companies.

The LVPEI Clinical Research Division is administered by dedicated clinical personnel, biostatisticians and data entry personnel.



- ◆ Kallam Anji Reddy Molecular Genetics Laboratory
- ◆ Sudhakar & Sreekanth Ravi Stem Cell Biology Laboratory
- ◆ Jhaveri Microbiology Centre
- ◆ Ophthalmic Pathology Laboratory
- ◆ Biochemistry Laboratory
- ◆ Clinical Research Unit
- ◆ Saroja A Rao Immunology Laboratory

Major research projects undertaken this year

Ocular Infections caused by Coagulase-negative Staphylococci (CoNS): Epidemiology, clinicomicrobiological features, drug resistance, virulence factors, and phenotype-genotype correlation (Investigators: Aparna Duggirala, Savitri Sharma, D Balasubramanian. Support: CSIR)

Coagulase-negative Staphylococci (CoNS) are the most commonly isolated organisms in clinical microbiology laboratories. This study was undertaken to determine the prevalence of CoNS causing ocular infections and the reasons for multiple drug resistance of the CoNS through microbiological, molecular, biochemical, pharmacological and clinical investigations. A retrospective review of the microbiology data showed that of 1560 clinical samples from various eye infections processed in the microbiology laboratory between July 2004 and December 2004, 763 (48.9%) were culture positive. Of the 763, we identified 102 (13.3%) as significant CoNS. Analytical profile index (API) based identification and drug susceptibility testing was also done during this period. Of the 39 CoNS, 20 (51.2%) were *Staphylococcus epidermidis* and 9 (23.07%) were *Staphylococcus haemolyticus*. Other species of CoNS isolated were 3 (7.6%) *Staphylococcus capitis*, 3 (7.6%) *Staphylococcus lugdunensis*, 2 (5.1%) *Staphylococcus warneri*, 1 (2.5%) *Staphylococcus hominis* and 1 (2.5%) *Staphylococcus saprophyticus*. Antibiotic susceptibility results showed that 42% of the isolates were sensitive to all the drugs tested and 31% of the isolates were resistant to three or more antibiotics. In terms of the efficacy of newer fluoroquinolones against CoNS compared to other gram-positive bacteria from ocular infections, we found that fourth-generation fluoroquinolones were highly effective against all gram-positive bacteria. For ciprofloxacin and ofloxacin, CoNS had higher MIC (greater resistance) than other gram-positive bacteria. Microbiological and molecular methods were standardized for the detection of biofilm, which is a virulence marker for CoNS. Genotyping is being done to determine the genetic difference between CoNS isolated from keratitis and endophthalmitis and the normal conjunctival sac.

We are now investigating the stress responses in *Staphylococcus epidermidis* i.e., to identify the role of the catalase gene (*katA*) and alkyl peroxide reductase (*ahpC*) in the virulence of the organism.

Characterization of microsporidia causing ocular infections (Investigators: Joveeta Joseph, Savitri Sharma, D Balasubramanian. Support: DBT)

We reported the first case of ocular microsporidiosis in India in 2003; this is the only report so far from India. To the best of our knowledge no work is being done in India for molecular characterization of the organism. In this study, we plan to analyze the clinical and microbiological profile of cases diagnosed as ocular microsporidiosis. We have so far seen 25 cases. Various diagnostic methods will be optimized to diagnose microsporidiosis. These include staining, *in vitro* culture techniques and molecular techniques. A PCR-based diagnostic marker for species identification of Microsporidia has been standardized for the four species that have been reported to infect the eye. This must be validated on clinical samples. In addition, attempts to culture these parasites and analysis of the virulence factors of the parasites will be undertaken.

Activity of newer fluoroquinolones against gram-positive and gram-negative bacteria isolated from ocular infections: an *in vitro* comparison (Investigators: Aparna Duggirala, Joveeta Joseph, Savitri Sharma, Prashant Garg, Taraprasad Das. Support: HERF)

This study aimed to evaluate newer fluoroquinolones against bacteria isolated from ocular infections. The minimum inhibitory concentration (MIC) of ciprofloxacin, ofloxacin, levofloxacin, gatifloxacin and moxifloxacin was determined for 123 bacterial isolates, using the E test. Among the 123 isolates, 68 were gram positive and 55 were *Pseudomonas* spp. The MIC values for various fluoroquinolones were compared between the three groups and between gram-positive and gram-negative bacteria. For gram-positive isolates, the mean MICs of fourth generation fluoroquinolones were lower than those of the second generation. The mean MIC was lowest for gatifloxacin (0.22µgm/ml) in ciprofloxacin-sensitive isolates of gram-positive bacteria. For ciprofloxacin-sensitive *Pseudomonas*, the mean MIC of ciprofloxacin (0.249µg/ml) was significantly lower than ofloxacin, levofloxacin, gatifloxacin and moxifloxacin (1.8, 0.72, 0.74 and 2.2µg/ml respectively). Ciprofloxacin-resistant isolates of gram-positive bacteria showed higher MIC of levofloxacin, moxifloxacin and gatifloxacin though they remained sensitive to them. None of the fluoroquinolones were effective against ciprofloxacin-resistant isolates of

Pseudomonas spp. Overall, for gram-positive bacteria, the mean MICs of levofloxacin, moxifloxacin, and gatifloxacin were below that of ciprofloxacin and equal to those of gatifloxacin and moxifloxacin. Levofloxacin, gatifloxacin and moxifloxacin are highly effective against gram-positive bacteria, the latter two being equally effective. Ciprofloxacin remains the most effective fluoroquinolone against *Pseudomonas* spp.

Novel molecular diagnostics for eye diseases: Ocular infections (Investigators: Roby James Jose, Savitri Sharma, D Balasubramanian. Support: New Millennium India in Technology Leadership Initiative Project: CSIR)

Routine microbiological methods of culture and smear suffer from low sensitivity, especially in the diagnosis of intraocular infections, due to small sample size and low microbial load in clinical samples. Consequently, there is a need for molecular methods of diagnosis, which are known to have high sensitivity and specificity. Application of these tools for the etiological diagnosis of infections provides a rapid and reliable approach in the specific management of all infections, including intraocular and extraocular infections. This study aims to develop and evaluate a DNA chip for the diagnosis of extraocular and intraocular infections. The results may help a large number of patients by providing an early diagnosis that will lead to early effective treatment.

The study aims to develop specific oligonucleotide hybridization probes to detect *Acanthamoeba*, Herpes simplex Virus 1 and 2 (HSV 1&2), Cytomegalovirus (CMV), Varicella Zoster virus (VZV), *Mycobacterium tuberculosis*, *Mycobacterium fortuitum*, *Mycobacterium chelonae* in ocular samples, and to validate these diagnostic probes on clinical samples. Uniplex and multiplex PCR for these organisms have been standardized and the PCR products are currently with the Centre for Cellular and Molecular Biology for dot blot hybridization and DNA chip development.

A phase III clinical trial of povidone iodine for the treatment of bacterial corneal ulcers (Investigators: Savitri Sharma, Prashant Garg. Support: Thrasher Foundation, USA)

The study aims to determine the efficacy of povidone iodine in the treatment of bacterial keratitis. Sixty-two patients with bacterial keratitis have been enrolled and randomized to two treatment groups. The study is ongoing.

Are fluoroquinolones synergistic with vancomycin, amikacin and ceftazidime? Possible implications in the treatment of bacterial endophthalmitis. (Investigators: Ashish Lall, Aparna Duggirala, Savitri Sharma, Taraprasad Das. Support: HERF)

Systemic fluoroquinolones in combination with intravitreal antibiotics may prove efficacious in the treatment of selected cases of infective endophthalmitis. To be truly

effective the systemic antibiotics should be synergistic with the intravitreal antibiotics. We evaluated the *in vitro* antibacterial efficacy of fluoroquinolones in combination with other commonly used intravitreal antibiotics against organisms usually associated with endophthalmitis. *Staphylococcus epidermidis*, *Pseudomonas aeruginosa* and *Bacillus cereus* obtained from the vitreous of postoperative endophthalmitis patients, after appropriate characterization, were selected for the study. Synergism testing (NCCLS broth dilution susceptibility methods) was done for the combination of fluoroquinolones (ciprofloxacin and gatifloxacin) with the commonly used intravitreal individual antibiotics (vancomycin, amikacin, and ceftazidime). The two dimensional, two-agent checkerboard broth microdilution method was used with positive and negative controls. Six combinations of antibiotics for each bacterial isolate were tested. Time kill assay was done on combinations to demonstrate partial or complete synergism. *Staphylococcus epidermidis* was resistant to ciprofloxacin and had intermediate sensitivity to gatifloxacin. *Bacillus cereus* was sensitive to both fluoroquinolones, vancomycin and amikacin, but not to ceftazidime. No interaction was noticed between the drug combinations against *Staphylococcus epidermidis* and *Bacillus cereus*. The combination of ciprofloxacin and amikacin at one-quarter of the MIC of both antibiotics was synergistic against *Pseudomonas aeruginosa*; at lower MIC combinations there was partial synergism. Time kill assay confirmed the synergistic activity of ciprofloxacin and amikacin; the synergism was apparent as early as four hours and maintained thereafter. Gatifloxacin, though active against *Pseudomonas aeruginosa*, did not show any significant interaction with other drugs. We concluded that fluoroquinolones are highly active against gram-negative bacteria and have intermediate or no activity against gram-positive bacteria. Synergism of ciprofloxacin and amikacin may play a beneficial role in gram-negative infections, particularly *Pseudomonas aeruginosa*.

The biological significance of proteolytic enzymes and endogenous tissue inhibitors in the pathogenesis of human fungal keratitis (Investigators: Usha Gopinathan, Geeta K Vemuganti, D Balasubramanian, Joveeta Joseph. Support: CSIR)

Fungal keratitis is a frequently encountered problem and is relatively non-responsive to antifungal agents. Therefore, methods are required to not only remove fungal agents from the infected corneas but also to regulate factors of matrix degradation, which alters the corneal tissue integrity, thus resulting in visual loss. The proteolytic changes occurring in human corneal tissues during fungal infection is as yet to be investigated. Apart from understanding the nature and type of proteolytic enzymes produced in corneas, it is also important to determine the tissue distribution/location of these enzymes in the infected tissue which would indicate the exact source of these toxic molecules. So far, we have standardized the procedure for characterizing the proteolytic species of corneas (in terms

of molecular mass and inhibitory sensitivity) in patients with fungal keratitis. We have also made a comparative evaluation of the clinical and microbiological features of corneas in patients with fungal keratitis. The enzymatic and histological features are being evaluated.

Clinical efficacy and safety of 1.4% T1225 eye drops versus 0.3% tobramycin eye drops in the treatment of purulent bacterial conjunctivitis (Investigators: Prashant Garg, Savitri Sharma, Pravin V Krishna. Support: Théa Laboratories, Paris)

This phase III clinical trial evaluated the efficacy and safety of the 1.4% T1225 formulation made by Théa laboratories of France. Jhaveri Microbiology Centre was the nodal laboratory for all three centres in Hyderabad involved in the study. Conjunctival swabs collected on day 0, day 3, and day 9 from all patients recruited in the study were tested for quantitative estimation of bacterial types. The study has been completed.

In vitro pathogenicity, molecular characterization and molecular diagnosis of *Acanthamoeba* keratitis (Investigators: Savitri Sharma, Ramesh Aggarwal (CCMB), Aparna Duggirala. Support: Department of Biotechnology, collaboration with CCMB)

This is a follow up study on molecular characterization of *Acanthamoeba*. The pathogenicity of the *Acanthamoeba* spp. belonging to the T4 genotype, isolated from our Institute, is being determined in the Human corneal epithelial (HCE) cell line. The time and temperature dependent study was done by inoculating *Acanthamoeba* cysts on the HCE cell line. ELISA tests for detection of cytokines; IL-1 α , TNF α and IL-6 were done and the levels of the same were estimated after inoculating the *Acanthamoeba* cysts/trophozoites in the HCE cell line. The data is now being analyzed. A multiplex PCR developed in the first phase of the study is now being validated on clinical samples.

Genetic studies on retinitis pigmentosa (Investigators: Hardeep Pal Singh, Subhadra Jalali, J Fielding Hejtmancik (Ophthalmic Genetics and Visual Function Branch, NEI, NIH, Bethesda, MD, USA), Chitra Kannabiran)

Retinitis pigmentosa (RP) is a genetically and clinically heterogeneous group of diseases involving the death of retinal photoreceptor cells. The disease manifests as progressive loss of vision often leading to blindness. It is inherited as an autosomal dominant, recessive and X-linked disease. So far, numerous genes have been found to result in different forms of RP when mutated. We are attempting to identify genes causing recessive RP in families with two or more affected individuals. Screening of such families for 21 different genes for RP led to the identification of mutations in 3 families. Two families had mutations in a gene, ABCA4, encoding a transporter protein in the photoreceptor cells (ATP-binding cassette subfamily

A member 4). One family had a mutation in the RDS/peripherin gene, which encodes a structural protein in rod cells. All these mutations are novel. Further studies are aimed at trying to understand the effect of these mutations by studying the mutant proteins and identifying other genes for RP by screening more affected families recruited for this study.

Molecular genetic studies on macular corneal dystrophy (Investigators: Afia Sultana, M S Sridhar, Gordon Klintworth (Duke University Medical Center), D Balasubramanian, N Srinivasan (Molecular Biophysics Unit, Indian Institute of Science, Bangalore), Chitra Kannabiran)

Macular corneal dystrophy (MCD) is an autosomal recessive disorder caused by mutations in the carbohydrate sulfotransferase-6 (CHST6) gene. CHST6 codes for an enzyme required for the synthesis of a major macromolecule known as keratan sulfate in the cornea. Patients with MCD have bilateral greyish white opacities in the cornea, which lead to visual impairment. We carried out a study to screen for changes (mutations) in the CHST6 gene in patients with MCD. We identified 47 different mutations in a study of 57 patients. We have carried out computational modeling of the protein to understand how these different mutations affect its structure.

A multicenter, randomized, double-masked, controlled study to evaluate the safety and efficacy of an Intravitreal Fluocinolone Acetonide (0.5 or 2 mg) Implant in patients with non infectious uveitis affecting the posterior segment of the eye (Investigators: Virender S Sangwan, Somasheila Murthy, Subhadra Jalali, Taraprasad Das. Support: Bausch & Lomb, Inc)

Posterior uveitis is a rare, clinically challenging disease, which is difficult to both diagnose and to treat. The mainstay of treating this auto-immune phenomenon is high dose systemic immuno-suppression, which is associated with serious side effects and morbidity. A new modality of treatment has evolved by the placement of a device into the posterior segment of the eye, which would release the steroid in a pulsed fashion over years. LVPEI is a participant in an FDA approved multicentre international trial, which may well be a landmark in the treatment of posterior uveitis, using cutting edge technology. In this interventional trial, the device is inserted into the eye, releasing the study drug (flucinolone) over three years.

Though the sponsor's requirement was to recruit 40 patients, we recruited 50 subjects in a record time of six months. This institute is therefore the highest recruitment center globally.

Right from the beginning, all our patients responded well to the implant, allowing us to discontinue the systemic immuno-suppressive medications. This in itself has benefited the patients as these medications were associated with several negative side effects.

Now in the third and final year of the study, 47 of the original 50 patients have successfully completed two years or more of follow-up. Two subjects underwent explantation of the device and exited the study and one subject expired. The results for uveitis control continue to be excellent. The study ends in December 2005, when the last subject will complete three years.

Implantable contact lens (corneal inlay) (Investigators: M S Sridhar, Pravin V Krishna, Ruby Kala - in association with Vision CRC, Sydney)

This study involves the surgical implantation of a newly developed polymer in the corneal stroma of non-seeing eyes to test for biocompatibility. The inlay was successfully implanted in 5 non-seeing eyes of 5 patients with one control. One patient required removal of the lenticule at 5 months due to epithelial healing problems but the rest continue to do well. Three subjects completed 10 months of follow-up and two have completed 8 months. The follow-up of patients is continuing.

Ex-vivo expansion of corneal stem cells form limbal biopsies using human amniotic membrane as a substrate and its applications in treating ocular surface disorders caused by Limbal Stem Cell Deficiencies” (Investigators: Anees Fatima, Geeta K Vemuganti, Virender S Sangwan, Shashi Singh (CCMB). Support: Department of Biotechnology, Government of India, New Delhi)

The role of limbal epithelial stem cells in maintaining the integrity of the ocular epithelial surface and the clinical manifestations of limbal stem cell deficiency are now well documented. Over the last few years, various centres, including our team initiated limbal epithelial cultures. To accomplish this, we used the explant culture technique to culture the limbal tissues on de-epithelialized human amniotic membrane, which serves as a carrier for the cultured cells. A corneal epithelium is generated within two weeks and is used to reconstruct the ocular surface of patients diagnosed with limbal stem cell deficiency as well as severe ocular surface deficiency. In this project, we demonstrated that stratification of the epithelium could occur *in-vitro* without the use of an air-water interphase. Furthermore, we demonstrated that following transplantation, there is clinical evidence of re-epithelization of the corneal epithelium within a few weeks. After initial clinical studies using autologous cultivated limbal epithelium for unilateral patients, the study was extended to include patients who had bilateral disease. These patients require oral immunosuppressive therapy in addition to standard therapy. The highlights of our study include: (1) Developing a feeder-cell free technique of culturing corneal epithelium using limbal tissues; (2) Successful culturing of 1-2 layered epithelium within 10-12 days, without the use of air-water interphase; (3) Demonstration of *in-vivo* stratification of the cultured monolayered epithelium and formation of normal corneal

epithelium in the recipient cornea; (4) Developing a “Composite culture” using limbal tissue and conjunctival tissues for treating severe ocular surface disorders; (5) Successful reconstruction of ocular surface in 70% of cases; and (6) Rare cases of limbal stem cell deficiency in severe Vernal kerato-conjunctivitis and Xeroderma Pigmentosa were documented and treated successfully.

Role of Human Papilloma Virus, proliferative markers, and p53 in the genesis and prognosis of ocular surface squamous neoplasia (Investigators: Guru Prasad, Geeta K Vemuganti, Santosh G Honavar, Chitra Kannabiran. Support: Indian Council of Medical Research, Government of India, New Delhi)

Ocular surface squamous neoplasia (OSSN) is a collective term used for the spectrum of squamous neoplasia affecting the conjunctiva and cornea. Though relatively uncommon, is a well-established entity. Its incidence ranges from 0.31/100,000 in Uganda to 1.9/100,000 in Austria. Though recent definite data on incidence of OSSN in our country is not available, a unpublished study from our tertiary eye care centre reported over 100 cases over 6 consecutive years. It was also found that it occurs mostly in young patients with a mean age of 38 years, some of these patients being sero-positive for HIV. It is believed that OSSN occurs from the alteration of the microenvironment with respect to cell-to-cell and cell-matrix interaction that results in the altered regulatory mechanisms of the limbal cell function leading to abnormal epithelial phenotypes. It could represent the abnormal maturation of corneal and conjunctival epithelium as a result of a combination of factors such as ultraviolet-beta irradiation and human papilloma virus. It is believed that as in the pathogenesis of uterine cervical carcinoma, there could be a progression of conjunctival inflammatory conditions to dysplastic or neoplastic conditions in the presence of HPV DNA. HPV could act in association of UV light. Since UV light is a mutagenic agent for p53, it is possibly involved in the pathogenesis of OSSN. We therefore would like to establish the role of HPV virus in the causation of OSSN and try to evaluate the associated involvement of p53 mutations and the prognostic markers.

Isolation, characterization of bone marrow stromal cells and attempt to trans-differentiate them into neuroglial-retinal cells (Investigators: Purushotham Reddy, Geeta K Vemuganti, Taraprasad Das, Support: Department of Biotechnology, Government of India, New Delhi)

Retinal disease is a common causes of blindness all over the world. Most retinal blinding diseases are irreversible. There is now increasing evidence for the presence of stem cells in the brain of adult animals and human beings. There is also evidence that such cells have “plasticity” or the ability to transdifferentiate from one type of adult stem into another, as has been demonstrated in bone marrow stromal cells.

Retina, an extension of the central nervous system (CNS), consists of two layers namely the retinal pigment epithelium (RPE) and the neurosensory retina. Efforts have been made to isolate, culture and transplant the RPE from the fetal retina, adult retina and autologous retina. These transplants have not resulted in functional recovery of vision blinded by retinal disorder. The causes of failure include the inability to spread as one single layer of RPE cells, and immunological rejection. We believe that the bone marrow stromal cells can be transdifferentiated not only into neural cells but also into the neuro-retinal cells. Recent research at other centres supports our hypothesis and has demonstrated that the transplantation of the bone marrow stromal cells into the subretinal space of rats shows both anatomical and functional restoration of the damaged retina.

We aim to isolate and characterize the human marrow stromal cells into neural and neuro-retinal lineage using appropriate growth factors, differentiating agents and by co-culturing them with retinal pigment cells which during development help in differentiation of the neuro-retinal layers.

Genetics of myopia (Investigators: Subhabrata Chakrabarti, Virender S Sangwan, B R Shamanna, Inderjeet Kaur, Sushma Tejwani, Annie Mathai, Ravi Thomas, D Balasubramanian)

This is an ongoing study to collect blood samples from patients of high myopia and the affected family members to look for the genes involved in the disease. The results would help in enhancing our understanding of the disease and developing suitable gene therapy. This study is in collaboration with Vision CRC, Australia.

The applicability of organ culture technique for meeting the demand for quality, quantity and safety of donor corneas for transplantation (Investigators: Usha Gopinathan, Paul J Dubord (University of British Columbia, Canada) W John Armitage (University of Bristol, UK), Prashant Garg, Arvind A Kumar, Gullapalli N Rao)

The objective of this ongoing study is to explore the possibility of increasing the donor pool by scientifically addressing the issue of revising some of the existing corneal transplant parameters. Corneas from 31 donors have been investigated so far.

Short-term vision function and quality of life outcomes after low vision rehabilitation in patients with age-related macular degeneration at a tertiary eye care centre in southern India (Investigators: Sarfaraz A Khan, Taraprasad Das, Sharmila Mohan Kumar, Beula Christy, S Krishnaiah, Rishita Nutheti)

This study aims to evaluate the impact of low vision rehabilitation services on vision function (VF) and quality



of life (QOL) in patients with age-related macular degeneration (AMD). A questionnaire previously used to assess VF and QOL and validated for use on the Indian population was used in this study. It was administered pre- and post-rehabilitation to 50 patients of AMD between October 1997, and May 2003. The outcome measures included overall changes in VF and QOL after low vision rehabilitation services. Rasch analysis was performed using the Winsteps package. A comparison of functional vision before and after rehabilitation showed that the item difficulty for reading, writing, and recognizing faces had reduced after rehabilitation. Comparison of pre versus post rehabilitation responses for QOL showed that the item difficulty for banking, daily living skills, and dialing phone was reduced. The average perceived functional ability and QOL improved significantly after rehabilitation (<0.001).

Functional analysis of mutated proteins associated with cataract (Investigators: Talla Venu, D Balasubramanian. Support: CSIR)

The genetic basis of some congenital cataracts is being increasingly understood. However, what the molecular phenotypes of such mutations in the lens cells are, which lead to lens opacification, need to be understood. For example, congenital lamellar cataract in children is known to be associated with the R168W mutation in the lens protein gamma-C-crystallin. Similarly, a 5-base insertion in the gamma-C-crystallin gene is associated with autosomal dominant variable zonular pulverulent cataract. In an effort to understand the connection between the changes that have occurred in the gamma-C-crystallin due to these mutations and cataract formation, we have cloned and expressed the normal and the mutated genes, isolated and purified the proteins and compared the structures and properties of the normal and the mutated proteins. When the mutant R168W was compared with normal gamma-C-crystallin, the former was found to have essentially the same secondary and tertiary structural fold, but was weaker in terms of stability – it began denaturing at earlier temperatures and also at lower denaturant concentrations. Compared to the wild type, the thermal precipitation of the

mutant molecule also occurs faster, suggesting the tendency of self-aggregation is more marked in the mutant – a property of relevance to lens clouding. Turning to the 5-base insertion mutation, such an insertion causes a distinct change in the sequence or primary structure of the gamma-C-crystallin itself. We found the mutant protein to be shorter in length (109 residues long, cf. 179 in wild type). The mutant also possesses no chain order; circular dichroism spectra revealed it to be in the disordered coil conformation, quite in contrast to the double Greek Key motif characteristic of gamma crystallins. This loss of structure, we believe, is reflected in the loss of function, i.e., lens transparency.

Molecular studies on the protein optineurin, associated with primary open angle glaucoma (Investigators: Madhaviatha Chalasani, D Balasubramanian, in collaboration with Ghanshyam Swarup, CCMB, Hyderabad. Support: Department of Science & Technology (DST), India).

While gene analysis reveals the association of the protein optineurin with glaucoma, its exact function remains unknown. Also, optineurin is not restricted to the eye alone, but occurs in several other tissues. The currently prevalent opinion is that it serves a neuroprotective role. In order to understand its structure and function, we have embarked on a program of studying the optineurin gene as well as the protein itself. We also generated several mutants (such as E50K and R545Q) using site directed mutagenesis, and studied both the normal (wild type) and mutant genes. To this end, we made cloned optineurin from human placental cDNA library in pcDNA mammalian expression

vector system. In order to identify which proteins optineurin might interact with, we used the Yeast Two Hybrid assay — using the bait vector pGBKT7, and pCT2 based human placental cDNA library. Yeast Two Hybrid assay has suggested that optineurin interacts in the cells with CYLD, the protein termed FLJ12168, the tumor necrosis factor alpha inducible factor 3TNFAIP3/A20, IK cytokine and a few others. We are currently looking at the cellular localization of optineurin (and its mutants), and the role it might have in intracellular transport and other cellular processes.

Immunopathology of ocular diseases in humans. A multi-center collaborative study (Investigators: Virender S Sangwan, Somasheila Murthy, in collaboration with the National Eye Institute, Washington DC, USA)

This multicenter collaborative study aims to investigate the role of immunopathogenic mechanisms in various ocular inflammatory diseases and to create a collaborative centralized datapool at NEI.

Amniotic membrane transplantation versus anterior stromal puncture for bullous keratopathy (Investigators: Virender S Sangwan, Sushma Tejwani, Somasheila Murthy, in collaboration with Queen's Medical Centre, Nottingham University Hospital, UK (Principal Investigator: Prof Harminder Dua)

This is an ongoing clinical trial. So far, 11 subjects have been recruited and randomized to either treatment arm. The study is in the initial stages and long term results are awaited.

Research scholars at Prof Brien Holden Eye Research Centre: D Aparna, S V V Kalyan Chakravarthi, Rajeshwari Devi, Anees Fatima, K Haribabu, Roby Jose James, Joveeta Joseph, Kiran Preet Kaur, Madhavi Latha, P Naresh, Surya Prakash, M Guru Prasad, K Purushotham Reddy, K Sreelatha Reddy, Hardeep Pal Singh, Afia Sultana, Talla Venu

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Presentations

In addition to the following, our faculty participated in other international/national scientific and non-scientific forums during the year.

D Balasubramanian

International

Chairperson

Workshop, Third World Network of Scientific Organizations, Trieste, Italy. August 23-27, 2004

Organizer/Co-chairperson

US – Indo Workshop on Collaborative Eye Research, Association for Research in Vision and Ophthalmology (ARVO), USA, National Eye Institute (NEI), USA, LVPEI, Hyderabad, India. February 9-15, 2005

2nd Singapore Eye Research Institute – Association for Research in Vision Ophthalmology (SERI – ARVO) meeting, Singapore. February 16-19, 2005

Invited speaker

Science Communication Workshop, Sri Lanka Foundation Institute, Sri Lanka. February 26-28, 2005

International Council of Ophthalmology – Asia-Pacific Academy of Ophthalmology (ICO – APAO) Symposium, Kuala Lumpur, Malaysia. March 27-31, 2005

National

Chairperson

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

New Millennium India in Technology Leadership Initiative (NMITLI) Monitoring & Steering Committee meeting, LVPEI, Hyderabad, India. June 18, 2004

Task Force meeting on Stem Cell Biology, Department of Biotechnology, New Delhi, India. July 5, 2004

Bio-technology Industry Organisation 2004 meet, Bangalore, India. July 12, 2004

Invited speaker

Institute of Genomics and Integrative Biology symposium, New Delhi, India. August 7, 2004

Monitoring Committee meeting, University Grants Commission, New Delhi, India. August 9, 2004

Governing Council meeting, Sri Venkateshwara Institute of Medical Sciences, Hyderabad, India. August 12, 2004

Indian Eye Research Group meeting, Sankara Nethralaya, Chennai, India. August 20-22, 2004

Chairperson

Biotech Advisory Committee meeting, LVPEI, Hyderabad, India. September 20, 2004

Invited speaker

Indian Institute of Chemical Technology, Hyderabad, India. October 5, 2004

Committee meeting, Indian National Science Academy, New Delhi, India. October 11-12, 2004

Expert evaluator

Hospital Review Committee, H V Desai Eye Hospital, Pune, India. October 17-18, 2004

Invited speaker

Anil Lala Memorial Lecture, Indian Institute of Technology, Mumbai, India. October 28, 2004

Academy Council meeting, Indian Institute of Information Technology, Hyderabad, India. October 29, 2004

Chairperson

Stem Cell task force meeting, Department of Biotechnology, New Delhi, India. November 2, 2004

Invited speaker

Foundation Day lecture, Apollo Institute of Hospital Management, Hyderabad, India. November 5, 2004

Chairperson

5th Steering Committee and 3rd Monitoring Committee meeting, CSIR – New Millennium India in Technology Leadership Initiative (NMITLI) programme on Eye and Vision, LVPEI, Hyderabad, India. November 8-9, 2004

Invited speaker

Hasi Majumder Lecture, University of Calcutta, Kolkata, India. December 11, 2004

92nd Indian Science Congress, Nirma University of Science & Technology, Ahmedabad, India. January 2-8, 2005

Chairperson

Stem Cell Task Force meeting, Department of Biotechnology, New Delhi, India. February 22, 2005

Organizer

The Stem Cell Research: From Bench to Bedside, Ranbaxy Science Foundation annual symposium in collaboration with LVPEI, Hyderabad, India. March 5, 2005

Invited speaker

Kochibothula Vasanthi Foundation Lecture, Kakinada, Andhra Pradesh, India. March 12, 2005

Chairperson

New Millennium India in Technology Leadership Initiative (NMITLI) meeting, LVPEI, Hyderabad, India. March 14, 2005

Institute Biosafety Committee meeting, Leptra Society, Hyderabad, India. March 18, 2005

S Chakrabarti**International****Poster presentation**

International Congress on Eye Research, International Society of Eye Research, Sydney, Australia. August 29-September 3, 2004

Invited speaker

Centre for Eye Research, Melbourne, Australia. September 8, 2004

2nd Singapore Eye Research Institute – Association for Research in Vision Ophthalmology (SERI – ARVO) meeting, Singapore. February 16-19, 2005

National**Chairperson**

Exclusive meet on Ophthalmic Research, Vision Research Foundation, Chennai, India. August 20-22, 2004

Invited speaker

Indian Eye Research Group, Sankara Nethralaya, Chennai, India. August 20-22, 2004

14th Annual Meeting, Glaucoma Society of India, Sri Ganapati Nethralaya, Jalna, Maharashtra, India. November 20-21, 2004

Annual meeting, Indian Society of Human Genetics and ADNAT, Hyderabad, India. February 21-23, 2005

Beula Christy**National****Invited speaker**

Orientation Training Program for Mandal Coordinators, Naandi Foundation, Hyderabad, India. July 26, 2004

Faculty

Vision-Aid Charitable Services Society, Visakhapatnam, India. November 23, 2004

Low Vision Awareness Program, LVPEI, Hyderabad, India. October 1-3, 2004

National orientation module on low vision, National Institute for the Visually Handicapped, Chennai, LVPEI, Hyderabad, India. January 20-21, 2005

Community based rehabilitation workers training program, ICARE–LVPEI, Hyderabad, India. January 28, 2005

Low Vision Awareness Program, LVPEI, Hyderabad, India. March 18-20, 2005

Taraprasad Das**International****Invited speaker**

ORBIS Hospital Based Program, Tiayuan, China. May 9-15, 2004

Optical Coherence Tomography meeting, Sri Lanka College of Ophthalmologists, Colombo, Sri Lanka. July 11, 2004

Gonin Meeting, Gonin Club, Athens, Greece. August 27-29, 2004

College of Sri Lankan Ophthalmologists Annual Conference, Colombo, Sri Lanka. October 7-10, 2004

American Academy of Ophthalmology Annual Meeting, New Orleans, USA. October 23-26, 2004

National**Organising secretary & Faculty**

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Invited speaker

Diabetic retinopathy, Aravind Eye Hospital, Madurai, India. April 17-18, 2004

Optical Coherence Tomography meet, Aditya Jyot Eye Hospital, Mumbai, India. June 20, 2004

AMD meeting, Vijayawada Ophthalmology Academy, Vijayawada, India. July 18, 2004

Retina Update, Orissa Ophthalmological Society, Bhubaneswar, Orissa, India. August 7-8, 2004

Tamilnadu Ophthalmology Academy meeting, Tirunelveli, Tamilnadu, India. August 14-15, 2004

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

13th Vitreo Retinal Society of India (VRSI) annual meeting, Ooty, India. February 24-26, 2005

S Sheila Devi**International****Faculty**

Training and Protocol Development for Rapid Assessment survey in Papua, New Guinea, supported by Fred Hollows Foundation, Port Moresby General Hospital, Papua, New Guinea. November 30 – December 8, 2004

National**Rapporteur**

Capacity building of Lions supported eye hospitals in Andhra Pradesh, ICARE-LVPEI, Hyderabad, India. November 5, 2004

Andhra Pradesh Right to Sight Society Workshop on Childhood Blindness, ICARE–LVPEI, Hyderabad, India. January 3-7, 2005

Anees Fatima

National

Paper presentation

'Ex-vivo culture techniques and in-vivo survival of transplanted epithelium: Experience of 200 cases', 13th Indian Eye Research Group meet, Sankara Nethralaya, Chennai, India. August 20-22, 2004

Poster presentation

'Ex-vivo culture techniques and in-vivo survival of transplanted epithelium: Experience of 200 cases', All India Cell Biology conference, Punjab University, Chandigarh, India. December 1-3, 2004

Nibaran Gangopadhyay

International

Invited speaker

XXII Congress of the European Society of Cataract and Refractive Surgery, Paris, France. September 18-22, 2004

Prashant Garg

International

Invited speaker

The Cambridge Ophthalmological Symposium, Cambridge, UK, September 16-17, 2004

National

Chairperson

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Faculty

Zonal Workshop of Indian Eye Banking Education Programme, Pune, Maharashtra, India. April 10, 2004

Symposium on Ocular Trauma, Shri Ganapati Netralaya, Jalna, Maharashtra, India. April 25, 2004

Invited speaker

ORBIS-Eye Bank Association of India Medical Directors workshop, New Delhi, India. July 23-24, 2004

ORBIS-ESI-LVPEI Zonal workshop, Lucknow, India. August 29, 2004

10 years of Precision Eye Care, Precision Eye Care Centre, Lucknow, India. March 13, 2005

Usha Gopinathan

National

Invited speaker

ORBIS-Eye Bank Association of India, Medical Directors workshop, New Delhi, India. July 23-24, 2004

ORBIS-ESI-LVPEI zonal workshop, Lucknow, India. August 29, 2004

Organiser/Faculty

ORBIS-ESI-LVPEI workshop on Eye Banking & Corneal Transplantation, Kochi, Kerala, India. November 24, 2004

Invited speaker

Hospital Based Program on Cornea Transplantation and Eye Banking, Pune, India. January 12, 2005

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

Zonal Workshop on Corneal Blindness and Eye Banking, Kolkata, India. February 20, 2005

Faculty

First and Second Rotary Cataract Initiative workshop, LVPEI, Rotary Club and Operation Eyesight Universal, LVPEI, Hyderabad, India. January 24-25, 2005 and February 25-26, 2005

Invited speaker

National Meeting on Eye Banking, New Delhi, India. March 20, 2005

Vijaya K Gothwal

National

Faculty

Low Vision Awareness Program, LVPEI, Hyderabad, India. October 1-3, 2004

Andhra Pradesh Right to Sight Society Workshop on Childhood Blindness, ICARE–LVPEI, Hyderabad, India. January 3-7, 2005

National orientation module on low vision, National Institute for the Visually Handicapped, Chennai, LVPEI, Hyderabad, India. January 20-21, 2005

Low Vision Awareness Program, LVPEI, Hyderabad, India. March 18-20, 2005

Santosh Honavar

International

Invited speaker

Annual Meeting, American Society of Ophthalmic Plastic and Reconstructive Surgery, New Orleans, Louisiana, USA. October 21-22, 2004

Annual Meeting, American Academy of Ophthalmology, New Orleans, Louisiana, USA. October 23-26, 2004

National

Faculty

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Symposium on Pediatric Ophthalmology, Ophthalmic Society of West Bengal, Kolkata, India. May 22, 2004

Invited speaker

Oculoplasty Association of India, annual meeting, Guwahati, India. August 21-23, 2004

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

Organiser

Indian Retinoblastoma Working Group Concept Meeting, LVPEI, Hyderabad, India. March 13, 2005

Nazimul Hussain

International

Invited speaker

3rd International Symposium on Heidelberg Retinal Angiogram, Beijing, China. September 3-5, 2004

Novartis India Advisory Board meeting, Dubai, UAE. September 25-26, 2004

National

Invited speaker

AMD meeting, Vijayawada Ophthalmology Academy, Vijayawada, India. July 18, 2004

35th All Assam Ophthalmological Society conference, Guwahati, Assam, India. November 6-7, 2004

Posterior Segment Complications of Cataract Surgery, workshop, Aso-Palov Eye Hospital (Retina Foundation), Ahmedabad, India. November 27-28, 2004

Subhadra Jalali

International

Invited speaker

Seventh General Assembly of International Agency for the Prevention of Blindness (IAPB), Dubai, UAE. September 20-24, 2004

College of Sri Lankan Ophthalmologists annual conference, Colombo, Sri Lanka. October 7-10, 2004

National

Chairperson

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Invited speaker

Symposium on Ocular Trauma, Shri Ganapati Netralaya, Jalna, Maharashtra, India. April 25, 2004

Symposium on Endophthalmitis, Sarojini Devi Eye Hospital, Hyderabad, India. May 25, 2004

Organiser

Fourth Ocular Trauma Society of India meet, Sarojini Devi Eye Hospital, Hyderabad, India. July 24-25, 2004

First-ever Ocular Electrophysiology workshop in India (hands-on course) in collaboration with International Society for Clinical Electrophysiology of Vision, LVPEI, Hyderabad, India. August 27-28, 2004

Invited speaker

CME, Diabetes and the Eye, Hyderabad Chapter of Indian Medical Academy, Hyderabad, India. November, 22, 2004

Andhra Pradesh Right to Sight Society workshop on childhood blindness, ICARE-LVPEI, Hyderabad, India. January 3-7, 2005

Poster presentation

63rd All India Ophthalmological Society (AIOS) conference, Bhubaneswar, Orissa, India. January 13-16, 2005

Chitra Kannabiran

International

Poster presentation

Annual meeting of Association for Research in Vision and Ophthalmology (ARVO), Fort Lauderdale, Florida, USA. April 23-28, 2004

National

Invited speaker

Indian Eye Research Group meeting, Sankara Nethralaya, Chennai, India. August 20-22, 2004

NIH Grantsmanship workshop, Centre for DNA Fingerprinting & Diagnostics, Hyderabad, India. September 8, 2004

Symposium on 'Genetics and Human Health', 70th Annual Meeting of the Indian Academy of Sciences, Varanasi, India. November 25-27, 2004

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

Indian Retinoblastoma Working Group Concept Meeting, LVPEI, Hyderabad, India. March 13, 2005

Sarfaraz A Khan

International

Invited speaker

National focal persons training course, Global Low Vision Working Group under WHO/IAPB, Hong Kong. July 19 – August 14, 2004

Low Vision Working Group meeting, 7th IAPB General Assembly, Dubai. September 20-24, 2004

Workshop on global impact of low vision, Lighthouse International, USA, and International Society for Low Vision Research and Rehabilitation, (ISLRR), USA, Oslo, Norway. October 16-21, 2004

5th annual scientific meeting, Saudi Ophthalmology Society, Riyadh, Saudi Arabia. March 6-9, 2005

Symposium on Low Vision, Magrabi Hospital and Ebsar Foundation Centre, Jeddah, Saudi Arabia. March 10, 2005

National

Chairperson

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Invited speaker

Eye India 04 - 2nd Meet on Community Management, Pune Blindmen's Association, H V Desai Eye Hospital, Pune, India. April 10-11, 2004

Keynote address

Scientific seminar and interactive session, Visakha Ophthalmic Association, Visakhapatnam, Andhra Pradesh, India. August 29, 2004

Low Vision Awareness Program, LVPEI, Hyderabad, India. October 1-3, 2004

Faculty

Andhra Pradesh Right to Sight Society Workshop on Childhood Blindness, ICARE–LVPEI, Hyderabad, India. January 3-7, 2005

National orientation module on low vision, National Institute for the Visually Handicapped, Chennai, LVPEI, Hyderabad, India. January 20-21, 2005

Low Vision Awareness Program, LVPEI, Hyderabad, India. March 18-20, 2005

Rohit Khanna**National****Faculty**

Operation Eyesight Universal Partner Networking Workshop, ICARE–LVPEI, Hyderabad, India. February 3-5, 2005

First and Second Rotary Cataract Initiative workshop, LVPEI, Rotary Club and Operation Eyesight Universal, LVPEI, Hyderabad, India. January 24-25, 2005, and February 25-26, 2005

D Kiran**National****Faculty**

Teachers Training Programs, Kubeer, Achamapet and Kothakota towns in Andhra Pradesh, India. November 2004

Vilas Kovai**National****Invited speaker**

Collaborations – NGOs in the VELUGU project activities workshop, VELUGU, Society for Elimination of Poverty, ICARE – LVPEI, Hyderabad, India. October 8, 2004

National Conference on 'Vision Centre – concept and its sustainability', Pune, India. December 21-22, 2004

One-day workshop on University collaborations with NGOs, Department of Anthropology, University of Hyderabad, Hyderabad, India. March 24, 2005

Pravin V Krishna**International****Poster presentation**

2nd Singapore Eye Research Institute – Association for Research in Vision Ophthalmology (SERI – ARVO) meeting, Singapore. February 16-19, 2005

National**Faculty**

32nd Indian Contact Lens Education Program (ICLEP), LVPEI, Hyderabad, India. July 1, 2004

International meeting on lamellar corneal surgery, Sankara Nethralaya, Chennai, India. September 4-5, 2004

33rd Indian Contact Lens Education Program (ICLEP), LVPEI, Hyderabad, India. December 1-5, 2004

ORBIS Hospital based program, LVPEI, Hyderabad, India. December 10, 2004

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

S Krishnaiah**National****Invited speaker**

National conference, Indian Society for Medical Statistics, Jawaharlal Institute for Post-Graduate Medical Education and Research (JIPMER), Pondicherry, India. January 21-23, 2005

Ajit B Majji**International****Poster presentation**

2nd Singapore Eye Research Institute – Association for Research in Vision Ophthalmology (SERI – ARVO) meeting, Singapore. February 16-19, 2005

National**Chairperson**

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Invited speaker

District Ophthalmic Society Meeting, Karimnagar, Andhra Pradesh, India. May 30, 2004

Vizag Ophthalmic Society Meeting, Visakhapatnam, India. June 27, 2004

Dr Ravi Kumar Reddy endowment lecture, Sarojini Devi Eye Hospital, Hyderabad, India. August 21, 2004

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

13th Vitreo Retinal Society of India (VRSI) annual meeting, Ooty, India. February 24-26, 2005

Anil K Mandal**International****Invited speaker**

American Academy of Ophthalmology meeting, New Orleans, Louisiana, USA. October 23-26, 2004

Tulane University Medical Centre, USA. October 26, 2004

Thought leader

US – Indo Workshop on Collaborative Eye Research, Association for Research in Vision and Ophthalmology (ARVO), USA, National Eye Institute (NEI), USA, LVPEI, Hyderabad, India. February 9-15, 2005

National**Chairperson**

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Invited speaker

Eye Advance 2004, Mumbai, India. August 27-29, 2004

Annual Glaucoma Society of India, Sri Ganapathi Netralaya, Jalna, Maharashtra, India. November 20-21, 2004

72nd Reunion Meeting, NRS Medical College, Kolkata, India. December 1-3, 2004

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

Himanshu Matalia**International****Poster presentation**

2nd Singapore Eye Research Institute – Association for Research in Vision Ophthalmology (SERI – ARVO) meeting, Singapore. February 16-19, 2005

Annie Mathai**International****Invited speaker**

Alumni meeting, Sydney Eye Hospital, Sydney, Australia. July 31, 2004

National**Invited speaker**

Ocular Trauma Society of India Meet-2004, Sarojini Devi Eye Hospital, Hyderabad, India. July 24-25, 2004

13th Vitreo Retinal Society of India (VRSI) annual meeting, Ooty, India. February 24-26, 2005

Somasheila Murthy**National****Invited speaker**

12th annual meeting, Indian Association of Pathologists and Microbiologists, AP State Chapter, Rajahmundry, Andhra Pradesh, India. September 10-12, 2004

Faculty

Hospital Based Program, ORBIS-ESI-LVPEI International Training & Resource Centre for Eye Banking & Corneal Transplantation, LVPEI, Hyderabad, India. December 6-10, 2004

Invited speaker

Twin Cities pathology meeting, LVPEI, Hyderabad, India. January 7, 2005

First and Second Rotary Cataract Initiative workshop, LVPEI, Rotary Club and Operation Eyesight Universal, LVPEI, Hyderabad, India. January 24-25, 2005, and February 25-26, 2005

Milind Naik**International****Invited speaker**

Asia Pacific Society of Ophthalmic Plastics and Reconstructive Surgery (APSOPRS) meeting, Singapore National Eye Centre, Singapore. September 3, 2004

Live surgical workshop, XIII Annual Congress of College of Ophthalmologists of Sri Lanka, Colombo, Sri Lanka. October 5-9, 2004

National**Chairperson**

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Invited speaker

Oculoplasty Association of India (OPAI) annual meeting, Sri Sankaradeva Nethralaya, Guwahati, India. August 20-23, 2004

Oculoplasty Symposium, South Regional Ophthalmic Conference and Andhra Pradesh State Ophthalmic Society annual meeting, Warangal, Andhra Pradesh, India. October 1, 2004

Paediatric Ophthalmology CME, MM Joshi Eye Hospital, Hubli, Karnataka. India. October 10, 2004

Botulinum Toxin Live Workshop: Oculoplasty Symposium, Poona Ophthalmic Society, Pune, India. October 24, 2004

Oculoplasty and Aesthetic Surgery Symposium, Sarojini Devi Eye Hospital, Hyderabad, India. December 18, 2004

Trends in Oculoplastic and Aesthetic Eyelid Surgery, Interactive Live Surgical Workshop, Sunderlal Jain Hospital, New Delhi, India. February 27, 2005

Oculoplasty Symposium, Vidarbha Ophthalmic Society, Chandrapur, Maharashtra, India. March 13, 2005

Praveen K Nirmalan**International****Invited speaker**

XVI International Congress of Eye Research meeting, Sydney, Australia. August 29 – September 3, 2004

Faculty

Training and Protocol Development for Rapid Assessment Survey in Papua New Guinea, supported by Fred Hollows Foundation, Port Moresby General Hospital, Papua, New Guinea. November 30 – December 8, 2004

Thought leader

US – Indo Workshop on Collaborative Eye Research, Association for Research in Vision and Ophthalmology (ARVO), USA, National Eye Institute (NEI), USA, LVPEI, Hyderabad, India. February 9-15, 2005

National Faculty

32nd Indian Contact Lens Education Programme (ICLEP), LVPEI, Hyderabad, India. July 1, 2004

Capacity building of Lions supported eye hospitals in Andhra Pradesh, ICARE-LVPEI, Hyderabad, India. November 5, 2004

33rd Indian Contact Lens Education Programme (ICLEP), LVPEI, Hyderabad, India. December 1-5, 2004

Hospital Based Program, ORBIS-ESI-LVPEI International Training & Resource Centre for Eye Banking & Corneal Transplantation, LVPEI, Hyderabad, India. December 6-10, 2004

Andhra Pradesh Right to Sight Society Workshop on Childhood Blindness, ICARE-LVPEI, Hyderabad, India. January 3-7, 2005

First and Second Rotary Cataract Initiative workshop, LVPEI, Rotary Club and Operation Eyesight Universal, LVPEI, Hyderabad, India. January 24-25, 2005, and February 25-26, 2005

Indian Retinoblastoma Working Group Concept Meeting, LVPEI, Hyderabad, India. March 13, 2005

Rajul Parikh**International****Poster presentation**

2nd Singapore Eye Research Institute – Association for Research in Vision Ophthalmology (SERI – ARVO) meeting, Singapore. February 16-19, 2005

National**Invited faculty**

Annual conference of Andhra Pradesh Ophthalmology Society, Warangal, India. September 2-4, 2004

FOCUS 2004 meeting, Bombay Ophthalmologist's Association, Mumbai, India. November 25-26, 2004

Avinash Pathengay**International****Poster presentation**

2nd Singapore Eye Research Institute – Association for Research in Vision Ophthalmology (SERI – ARVO) meeting, Singapore. February 16-19, 2005

National**Invited speaker**

AMD meeting, Vijayawada Ophthalmology Academy, Vijayawada, India. July 18, 2004

Poster presentation

13th Vitreo Retinal Society of India (VRSI) annual meeting, Ooty, India. February 24-26, 2005

Guru Prasad**National****Poster presentation**

1st annual International Conference of Translational Research for Cancer and Other Diseases – Bench to Bedside, Centre for Cellular and Molecular Biology (CCMB), Hyderabad, India. March 19-20, 2005

MNK Prasad**National****Invited speaker**

Community Eye Health Awareness Program, St. Gregorius Balagram Eye Hospital, Yacharam, Andhra Pradesh, India. June 9, 2004

Kuldeep Raizada**International****Observership**

Ophthalmic plastic and constructive surgery, and maxillofacial and dentistry clinic, MD Anderson Cancer Center, Houston, Texas, USA. May 16-31, 2004

Poster presentation

Post enucleation socket syndrome: an ocularist's view, American Anaplastology Association, Cleveland, Ohio, USA. July 22-26, 2004

National**Invited speaker**

National Symposium of Oculoplasty, Sarojini Devi Eye Hospital, Hyderabad, India. December 18, 2004

Vijaya L Ramam**National****Invited speaker**

Workshop, A Comprehensive Management Training Programme for Service Providers in the Eye Care Sector, ORBIS India, Mumbai, India. April 17-18, 2004

Hospital Administration Program, Administrative Staff College of India, Hyderabad, India. April 24, 2004

Seminar, Future Proof of HR, National HRD network, Hyderabad, India. April 24, 2004

Usha Raman**International****Paper presentation**

Seventh General Assembly of International Agency for the Prevention of Blindness (IAPB), Dubai, UAE. September 20-24, 2004

Gullapalli N Rao

International

Visiting professor

Rocky Mountain Lions Eye Institute, University of Colorado, Denver, USA. April 23, 2004

St. Luke's Roosevelt Hospital Centre, New York, USA.
May 10, 2004

Moderator

49th Annual Rochester Ophthalmology Conference, Vision for the Future, University of Rochester, Rochester, USA.
June 4, 2004

Invited speaker

International Congress on Eye Research, International Society of Eye Research, Sydney, Australia. August 29-September 3, 2004

Seventh General Assembly of International Agency for the Prevention of Blindness (IAPB), Dubai, UAE.
September 20-24, 2004

Thought leader

US – Indo Workshop on Collaborative Eye Research, Association for Research in Vision and Ophthalmology (ARVO), USA, National Eye Institute (NEI), USA, LVPEI, Hyderabad, India. February 9-15, 2005

Invited speaker/Honoured guest

Establishment of Cornea Unit and Eye Bank, Islamia Eye Hospital and MA Ispahani Institute of Ophthalmology, Dhaka, Bangladesh. March 27, 2005

Special lecture

Delivered 'Susruta Lecture' at Academia Ophthalmological Internationalis, 20th Congress of Asia Pacific Academy of Ophthalmology (APAO), Kuala Lumpur, Malaysia. The topic was 'Model for Delivery of Eye Care in Developing Countries'. March 28-31, 2005.

Invited speaker

How to provide Manpower to Achieve the Goal of VISION 2020 in Eliminating Cataract Blindness: The Training of Ophthalmic Surgeons and Ophthalmic Assistants, International Council of Ophthalmology – Asia Pacific Academy of Ophthalmology (ICO – APAO), Symposium on Innovations in Managing Cataract Blindness Worldwide, Kuala Lumpur, Malaysia. March 28-31, 2005

Update on Progress of VISION 2020 and Restructuring of IAPB, Bi-Regional Meeting of International Agency for the Prevention of Blindness (IAPB) – South East Asia Region and Western Pacific Region, Kuala Lumpur, Malaysia. March 28-31, 2005

National

Invited speaker

Workshop, A Comprehensive Management Training Programme for Service Providers in the Eye Care Sector, ORBIS India, Mumbai, India. April 17-18, 2004

Mid-year meeting, Indian Academy of Sciences, Bangalore, India. July 2-3, 2004

ORBIS-Eye Bank Association of India, Medical Directors Workshop, New Delhi, India. July 23-24, 2004

Ophthalmic Research workshop, 20th anniversary of Vision Research Foundation, Chennai, India.
August 20-22, 2004

Delivered 15th Venugopal Endowment Lecture, Medical Research Foundation, Sankara Netralaya, Chennai, India.
September 5, 2004

Dakshin Netra 2004 – Southern Regional Ophthalmic Conference (SROC) and 28th Andhra Pradesh State Ophthalmic Society (APSOS) Annual Conference, Warangal, Andhra Pradesh, India. October 1-3, 2004

Strengthening Eye Banking Services in Rajasthan, Jaipur, India. October 12-13, 2004

Indian Eye Banking Education Program, Kochi, Kerala, India. November 24-25, 2004

XII Annual Conference of Bombay Ophthalmologists Association, Mumbai, India. December 5-6, 2004

Andhra Pradesh Right to Sight Society Workshop on Childhood Blindness, ICARE–LVPEI, Hyderabad, India.
January 3-7, 2005

Eye Bank Association of India (EBAI) Scientific Programme – Future of Eye Banking in India, 63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

Guntur Medical College Global Alumni Homecoming, Guntur Medical College Alumni of North America and Guntur Medical College Old Students Association, Guntur, Andhra Pradesh, India. January 22-23, 2005

Operation Eyesight Universal Partner Networking Workshop, ICARE–LVPEI, Hyderabad, India.
February 3-5, 2005

10 years of Precision Eye Care, Precision Eye Care Centre, Lucknow, India. March 13, 2005

National workshop on Corneal Blindness, VISION 2020: The Right to Sight – India, Dr Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences (AIIMS), Venu Eye Institute, Dr Shroff's Charity Eye Hospital and Eye Bank Association of India (EBAI), New Delhi, India.
March 20, 2005

B Venkateshwar Rao

International

Invited speaker

29th meeting of European Strabismological Association, Izmir, Turkey. June 1-4, 2004

17th International meeting on Cataract, Impact, Micro surgery and Refractive Keratoplasty of the Asia-Pacific Association of Cataract & Refractive Surgeons with the 30th Indonesian Ophthalmologists Association annual meeting, Bali International Convention Centre, Bali, Indonesia. June 12-15, 2004

Indiana University Fellows Meeting, Charleston, South Carolina, USA. September 24-26, 2004

Poster presentation

American Association of Pediatric Ophthalmology and Strabismus, Orlando, USA. March 9-13, 2005

National

Invited speaker

CME, Pediatric Ophthalmology programme, Aurangabad, Maharashtra, India. July 25, 2004

K Purushottam Reddy

National

Poster presentation

'Transdifferentiation of Human Bone Marrow Stromal Cells into Neuroglial Lineage - A Promising Development', 73rd annual general meeting, The Society of Biological Chemists (India), Pantnagar, Uttaranchal, India. November 21-24, 2004

Virender S Sangwan

International

Poster presentation

Annual meeting of Association for Research in Vision and Ophthalmology (ARVO), Fort Lauderdale, Florida, USA. April 23-28, 2004

Invited speaker

National Eye Institute, Bethesda, Maryland, USA. April 29, 2004

University of Rochester, Rochester, USA. May 1, 2004

Vision CRC guest seminar, University of New South Wales, Sydney, Australia. August 27, 2004

World Health Organisation meeting, Global Consultation on Regulatory Requirements for Human Cells, Tissues, and Organ Transplantation, Ottawa, Canada. November 29 – December 1, 2004

20th Congress of Asia Pacific Academy of Ophthalmology (APAO), Kuala Lumpur, Malaysia. March 28-31, 2005

National

Invited speaker

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Update - Corneal Refractive Surgery, Aravind Eye Hospital, Coimbatore, India. June 11-12, 2004

Stem cell task force meeting, Department of Biotechnology, Government of India, New Delhi, India. July 5, 2004

Ocular Surface Diseases symposium, Sun Pharmaceuticals, Mumbai, Maharashtra. July 11, 2004

ORBIS-Eye Bank Association of India, Ministry of Health, Government of India, New Delhi, India. July 24, 2004

Ocular Surface Diseases symposium, Sun Pharmaceuticals, New Delhi, India. July 24, 2004

Ocular Surface Diseases symposium, Sun Pharmaceuticals, Kolkata, India. August 8, 2004

International congress on lamellar corneal surgery, Sankara Netralaya, Chennai, India. September 4-5, 2004

Andhra Pradesh State Ophthalmic Society annual meeting, Warangal, Andhra Pradesh, India. October 1-3, 2004

Rajasthan Ophthalmological Society annual meeting, Udaipur, India. October 8-9, 2004

North Zone Ophthalmological Society annual meeting, Rohtak, Haryana, India. October 10, 2004

Annual meeting of Vidharbha Ophthalmic Society, Nagpur, India. October 30-31, 2004

Hospital Based Program, ORBIS-ESI-LVPEI International Training & Resource Centre for Eye Banking & Corneal Transplantation, LVPEI, Hyderabad, India. December 6-10, 2004

Indian College of Allergy, Asthma and Applied Immunology meeting, Bhubaneswar, India. December 17-18, 2004

Frontiers in stem cell research and biotherapy, Indian Science Congress Association, Ahmedabad, India. January 6, 2005

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

The Stem Cell Research: From Bench to Bedside, Ranbaxy Science Foundation annual symposium in collaboration with LVPEI, Hyderabad, India. March 5, 2005

10 years of Precision Eye Care, Precision Eye Care Centre, Lucknow, India. March 13, 2005

Workshop, Ocular Surface Disorders, held in Airbus of Retina Foundation, Ahmedabad, India. March 19-20, 2005

G Chandra Sekhar

International

Poster presentation

European Glaucoma Society meeting, Florence, Italy. May 30 – June 3, 2004

Examiner

FRCS examination, Glasgow, UK. November 15-17, 2004

Invited speaker

Symposium on diagnostics in glaucoma, Allergan, Dhaka, Bangladesh. February 25, 2005

National

Co-ordinator

International Council of Ophthalmology examination, LVPEI, Hyderabad, India. April 1, 2004

Organizer

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 3-5, 2004

Invited speaker

23rd CME Programme, Sarojini Devi Eye Hospital, Hyderabad, India. May 17, 2004

Chairperson

'Glaucoma 2004', Hyderabad Ophthalmological Association, July 4, 2004

Invited speaker

Hands-on training program, Andhra Medical College, Visakhapatnam, Andhra Pradesh, India. August 7, 2004

CME program, Chaitanya Eye Hospital & Research Centre, Thiruvananthapuram, Kerala, India. September 12, 2004

Examiner

FRCS examination, Royal College – Glasgow (UK), held at New Delhi, India. September 21-23, 2004

Invited speaker

Instruction course, Southern Regional Ophthalmic Conference (SROC), Warangal, Andhra Pradesh, India. October 1-4, 2004

Instruction course 'Glaucoma Diagnosis', Southern Regional Ophthalmic Conference (SROC), CME-RP Centre, Bangalore, India. October 16, 2004

XIV Annual Glaucoma Society of India meeting, Shri Ganapati Netralaya, Jalna, Maharashtra, India. November 20-21, 2004

Organizer

Clinical and viva examinations for FRCS, Glasgow (UK), LVPEI, Hyderabad, India. February 8-10, 2005

Course co-ordinator

Symposium on glaucoma diagnostics and therapy, Bangalore, India. March 5, 2005

Invited speaker

10 years of Precision Eye Care, Precision Eye Care Centre, Lucknow, India. March 13, 2005

B R Shamanna**International****Invited speaker**

Pacific Eye Doctors workshop, Fred Hollows Foundation, New Zealand, Vanuatu, South Pacific Islands. June 26 - July 3, 2004

Invited speaker & Rapporteur

Seventh General Assembly of International Agency for the Prevention of Blindness (IAPB), Dubai, UAE. September 20-24, 2004

Faculty

Training and Protocol Development for Rapid Assessment Survey in Papua New Guinea, supported by Fred Hollows Foundation, Port Moresby General Hospital, Papua, New Guinea, November 30 – December 10, 2004

Fred Hollows Foundation, New Zealand, for South Pacific Islands, Papua New Guinea, and Fiji partners, Auckland, New Zealand. February 12 – April 3, 2005

National**Rapporteur for session**

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, Andhra Pradesh, India. April 4, 2004

Invited speaker

Swami Vivekananda Youth Movement Hospital, Sargur, H.D. Kote, Mysore, India. April 6-7, 2004

Eye India 04 - 2nd Meet on Community Management, Pune Blindmen's Association, H V Desai Eye Hospital, Pune, India. April 9-10, 2004

Workshop for Service Providers in the Eye Care Sector, ORBIS India, Mumbai, India. April 17-18, 2004

Faculty

CME 2004, Sarojini Devi Eye Hospital, Hyderabad, India. May 20, 2004

Organizer

Andhra Pradesh Lions Eye Hospital District 324 C3-C5, Hyderabad, India. May 23, 2004

Project Orientation Workshop, ORBIS supported Eye & Health Care Financing Project, ICARE - LVPEI, Hyderabad, India. July 27, 2004

Evaluator

Leprosy Mission Ophthalmic Programs - Phase 2, Kolkata, Purulia, Allahabad and New Delhi, India. August 7-13, 2004

Organizer

Promoters and self-help group leaders meeting for ORBIS project, Nizamabad, Andhra Pradesh, India. August 19, 2004

Evaluator

Leprosy Mission Ophthalmic Program, Salur, Andhra Pradesh, India. September 13-14, 2004

Organizer

Technical Committee Meeting for Bausch & Lomb Self Sustaining Cataract Centers Project, New Delhi, India. October 4, 2004

Evaluator

Community Assisted and Financed Eye Care project, Nidadavole, West Godavari district, India. October 8-9, 2004

Invited speaker

Governance in Health Sector, Silver Jubilee Symposium, IRMA, Anand, Gujarat, India. December 16-19, 2004

Organizer

Andhra Pradesh Right to Sight Society Workshop on Childhood Blindness, ICARE-LVPEI, Hyderabad, India. January 3-7, 2005

Invited speaker

ORBIS partners workshop for Cost Containment and Financial Sustainability, All India Institute of Medical Sciences (AIIMS), New Delhi, India. January 18-20, 2005

Faculty

Partners Workshop 2005, Operation Eyesight Universal, Hyderabad, India. February 2-5, 2005

Invited speaker

Leprosy Mission Ophthalmic Program Evaluation, Kothara, Amaravathi district, Maharashtra, India. February 5, 2005

First and Second Rotary Cataract Orientation Program, Rotary International, Operation Eyesight Universal and LVPEI, Hyderabad, India. January 24-25, 2005, and February 25-26, 2005

Savitri Sharma**International****Invited speaker**

11th Annual Scientific Meeting, Medical Contact Lens and Ocular Surface Association and European Contact Lens Society, London, UK. November 18, 2004

Faculty

Instructional courses, American Academy of Ophthalmology, New Orleans, Louisiana, USA. October 23-26, 2004

National**Invited speaker**

AP State Chapter of Indian Association of Medical Microbiologists meeting, Siddhartha Medical College and Hospital, Vijayawada, India. June 27, 2004

Chairperson

27th Annual Congress, Indian Association of Medical Microbiologists (MICRON 2004), Lucknow, India. November 25-28, 2004

Invited speaker

National seminar, Bioprocessing and Production Technology, Nagarjuna University, Guntur, Andhra Pradesh, India. December 22, 2004

National CME/workshop, Christian Medical College (CMC), Vellore, Tamilnadu, India. December 18, 2004

Faculty

First and Second Rotary Cataract Initiative workshop, LVPEI, Rotary Club and Operation Eyesight Universal, LVPEI, Hyderabad, India. January 24-25, 2005, and February 25-26, 2005

Chairperson

8th annual meeting, Hospital Infection Society of India, (Inficon 2005), Hyderabad, India. January 28-30, 2005

Organiser

8th Annual Conference, Indian Association of Medical Microbiologists (AP chapter), Eluru, Andhra Pradesh, India. February 11-12, 2005

Mallineni Sharmila**National****Evaluator**

Project on Integration of the Mentally Handicapped, Council for Advancement of People's Action and Rural Technology, Government of India, Hyderabad, India. September 1, 2004

Faculty

Orientation program for ICDS workers, National Institute for the Visually Handicapped, Chennai, India. September 3, 2004

Low vision awareness program, LVPEI, Hyderabad, India. October 1-3, 2004

Evaluator

Projects on community based rehabilitation for people with disabilities through rural development programs, Council for Advancement of People's Action and Rural Technology, (Government of India, New Delhi), Ravicherla Integrated Development and Educational Society, Nuzivid, Andhra Pradesh, India. October 27-28, 2004, Pragathi Seva Samithi, Warangal, India. November 29-30, 2004

Faculty

National orientation module on low vision, National Institute for the Visually Handicapped, Chennai, LVPEI, Hyderabad, India. January 20-21, 2005

Voice & Vision Task Force meeting, New Delhi, India. January 22, 2005

West Asia Regional conference, International Council for Education of People with Visual Impairment, New Delhi, India. January 23-25, 2005

Community based rehabilitation workers training program, ICARE-LVPEI, Hyderabad, India. January 31, 2005

Workshop, National Institute for the Mentally Handicapped (NIMH), Secunderabad, India. February 4, 2005

Workshop on low vision for special teachers, Special Education Department, Andhra University, Visakhapatnam, India. February 7-8, 2005

National seminar, CBR Forum, Bangalore, India. March 12-14, 2005

Low Vision Awareness Program, LVPEI, Hyderabad, India. March 18-20, 2005

M S Sridhar**International****Invited speaker**

American Society of Cataract and Refractive Surgery meeting, San Diego, California, USA. May 1-5, 2004

Observer

Refractive Surgery at University of Rochester, New York, USA; University of Mannheim, Germany; and University of Johannes - Gutenberg, Mainz, Germany. April - May 2004

National**Invited speaker**

CME program, Krishna Institute of Medical Sciences, Hyderabad, India. August 21, 2004

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16, 2005

CME, Karnataka Ophthalmological Society and Narayana Nethralaya, Bangalore, India. March 20, 2005

Sushma Tejwani**National****Invited speaker**

South Region Ophthalmology Conference 2004 and 28th A P State Ophthalmology Conference, Warangal, Andhra Pradesh, India. October 1-3, 2004

First and Second Rotary Cataract Initiative workshop, LVPEI, Rotary Club and Operation Eyesight Universal, LVPEI, Hyderabad, India. January 24-25, 2005, and February 25-26, 2005

Ravi Thomas**International****Moderator**

Annual meeting of Association for Research in Vision and Ophthalmology (ARVO), Fort Lauderdale, Florida, USA. April 23-28, 2004

Invited speaker

Glaucoma meeting, Merck, Sharp & Dohme, Chibert AG, Geneva, Switzerland. June 10, 2004

South East Asia Glaucoma Interest Group meeting, ALCON, Kuala Lumpur, Malaysia. August 27-28, 2004

First Asia Pacific Glaucoma Summit, Pfizer Pacific-Asia, Seoul, Korea. September 11-12, 2004

Seventh General Assembly of International Agency for the Prevention of Blindness (IAPB), Dubai, UAE. September 20-24, 2004

American Academy of Ophthalmology meeting, Fort Lauderdale, Florida, USA. October 23-27, 2004

Prevalence and Incidence of Glaucoma in India, Glaucoma Society of International Congress of Ophthalmology, Sao Paulo, Brazil. February 23-26, 2005

20th Congress, Asia Pacific Academy of Ophthalmology (APAO), Kuala Lumpur, Malaysia. March 28-31, 2005

National**Invited speaker**

International Eye Health Symposium, 'Technology to Trends', LVPEI, Hyderabad, India. April 4, 2004

Keynote speaker

Rajasthan Ophthalmological Society meeting, Udaipur, India. October 9-10, 2004

Invited speaker

Annual meeting, Glaucoma Society of India, Jalna, Maharashtra, India. November 20-21, 2004

Coordinator

Rotary Institute International Meeting, Kolkata, West Bengal, India. December 3, 2004

Invited speaker

Medical management of glaucoma, Pune Ophthalmological Society, Pune, India. January 23, 2005

Geeta K Vemuganti**International****Invited speaker**

International Congress on Eye Research, International Society of Eye Research Sydney, Australia. August 29-September 3, 2004

Vision CRC, Cornea & Contact Lens Research Unit, Sydney, Australia. September 6, 2004.

Singapore National Eye Centre, Singapore, September 8, 2004

Seventh General Assembly of International Agency for the Prevention of Blindness (IAPB), Dubai, UAE. September 20-24, 2004

Seminars on Unknown Cases, University of Illinois, Chicago, USA. October 27 – November 28, 2004

Stem Cell Therapy, University of Wisconsin, Madison, USA. November 18, 2004

Instruction course on Unusual Infections, American Academy of Ophthalmologists, New Orleans, Louisiana, USA. November 24-27, 2004

National**Invited speaker**

Self repair through stem cell technology, Nizam's Institute of Medical Sciences, Hyderabad, India. April 5, 2004

Tissue regeneration through stem cell technology, Nagarjuna University, Guntur, Andhra Pradesh, India. April 29, 2004

Indian Eye Research Group meeting, Sankara Netralaya, Chennai. August 20-22, 2004

Chief moderator

State Chapter meeting, Indian Association of Pathologists and Microbiologists, Rajahmundry, Andhra Pradesh, India. September 10-12, 2004

Invited speaker

National Symposium on Stem Cell Therapy, Kakatiya University, Warangal, Andhra Pradesh, India. October 17, 2004

XI meeting of Royal College of Surgeons, Edinburgh, Indian Chapter, Hyderabad, India. December 6, 2004

63rd annual meeting, All India Ophthalmological Society (AIOS), Bhubaneswar, India. January 13-16 2005

Indo-French Workshop on Neurosciences, National Brain Research Centre, Manesar, Haryana, India. February 14-15, 2005

Chairperson

Stem Cell Research: From Bench to Bedside, Ranbaxy Science Foundation annual symposium in collaboration with LVPEI, Hyderabad, India. March 5, 2005

Indian Retinoblastoma Working Group Concept Meeting, LVPEI, Hyderabad, India. March 13, 2005

Invited speaker

Translational Research: Bench to Bedside, LVPEI, Hyderabad, India. March 19, 2005

Jachin D Williams

National Organiser

Community Based Rehabilitation Workers Training Program for Jana Kalyana Samakhya and Community Development Centre, Vizianagaram, Andhra Pradesh, India. March 22- April 10, 2004

Community Eye Health Workers Training Program for Sangamithra - Medak, LVPEI-ICARE, Kismatpur Campus, Hyderabad, India. April 12-30, 2004

Faculty

Paramedical Ophthalmic Assistants Refresher Course, ICARE-LVPEI, Hyderabad, India. July 7-8, 2004

Invited speaker

St. Gregorius Balagram Eye Hospital, Yacharam, Ranga Reddy district, Andhra Pradesh, India. August 19, 2004

Faculty

School Eye Screening Teachers Training Program, Achampet, Mahbubnagar, Andhra Pradesh, India. November 20, 2004

Honors & Awards

Dr D Balasubramanian

Selected as Indian participant for US-Indo Workshop on Collaborative Research at Fort Lauderdale, Florida, USA, April 29-30, 2005.

Dr Shubhabrata Chakrabarti

Appointed Associate of the Indian Academy of Sciences, Bangalore, India.

Selected as Indian participant for US-Indo Workshop on Collaborative Research at Fort Lauderdale, Florida, USA, April 29-30, 2005.

Dr Taraprasad Das

Elected Vice President of All India Ophthalmological Society (AIOS). He will be President Elect in 2006, and President of the Society in 2007.

Selected as Indian participant for US-Indo Workshop on Collaborative Research at Fort Lauderdale, Florida, USA, April 29-30, 2005.

Elected President of Vitreo Retinal Society of India for 2005-2006.

Aparna Duggirala

Won Amjad Rahi Best Scientific Poster award at 13th Annual Meeting of Indian Eye Research Group (IERG), Sankara Nethralaya, Vision Research Foundation, Chennai, India, August 20-22, 2004. Her presentation was titled 'Activity of newer fluoroquinolones against gram positive and gram negative bacteria isolated from ocular infections: an in vitro comparison' and the co-investigators were Joveeta Joseph, Savitri Sharma, Prashant Garg, and Taraprasad Das.

Dr Nibaran Gangopadhyay

First person to win more than one award at the XXII European Society of Cataract and Refractive Surgeons (ESCRS) Congress, at Paris, France, September 18-22. He entered eight video titles for the ESCRS ALCON video competition and earned two prizes.

Dr Subhadra Jalali

Invited to be part of an international ROP working team under the VISION 2020: Right to Sight program, to meet at the World Congress of Ophthalmology 2006, in São Paulo, Brazil. The team will work on strategies to encourage the implementation of screening and treatment programs, gather data from various countries, and exchange scientific information on ROP research.

Dr Pravin Krishna

Received Young Investigator Award for Outstanding Achievement in Clinical Ophthalmology at Singapore Eye Research Institute – Association for Research in Vision Ophthalmology (SERI-ARVO) meeting in Singapore, February 16-19, 2005.

Dr Ajit B Majji

Received Dr Ravi Kumar Reddy Endowment Award from Sarojini Devi Eye Hospital, Hyderabad, India, August 21, 2004.

Elected Member, Scientific Committee, All India Ophthalmological Society (AIOS) for 2005-2007.

Elected Joint Secretary of Vitreo Retinal Society of India for 2005-2006.

Dr Anil K Mandal

Received Shanti Swarup Bhatnagar Award from Prime Minister of India at New Delhi for research on congenital glaucoma, September 13, 2004.

Received U N Brahmachari Oration Award for 2004 at 72nd Reunion Session, at Nilratan Sircar Medical School and College, Kolkata, India, December 1-3, 2004.

Selected as Indian participant for US-Indo Workshop on Collaborative Research at Fort Lauderdale, Florida, USA, April 29-30, 2005.

D Nagarajan

Received group award for his role in moving forward the goals of VISION 2020 and International Agency for Prevention of Blindness (IAPB) in the South-East Asian Region at IAPB's Seventh General Assembly, Dubai, UAE, September 20-24, 2004. He shared the award with Mr P G Michael, Dr Rachel Jose, and Dr Damodar Bachani, all from India.

Dr Milind Naik

Awarded Associate membership of European Society of Ophthalmic Plastics and Reconstructive Surgery, July 2004.

Dr Praveen K Nirmalan

Selected as Indian participant for US-Indo Workshop on Collaborative Research at Fort Lauderdale, Florida, USA, April 29-30, 2005.

Gunisha Pasricha

(first Ph D student from LVPEI registered with BITS, Pilani)
Awarded Ph.D for her work on 'Understanding Acanthamoeba keratitis in India: A microbiological, cellular, and molecular approach'; Viva voce held September 20, 2004, at Birla Institute of Technology and Science (BITS), Pilani, Rajasthan, India.

Sreedevi Penmetcha

Received citation and award at the International Agency for the Prevention of Blindness (IAPB) Seventh General Assembly, Dubai, UAE, September 20-24, 2004.

Kuldeep Raizada

Received membership to the American Society of Ocularists, USA, and the American Anaplastology Association, USA, 2004-2005.

Presented video 'Ocularistry: The Face of the Future' at the American Academy of Ophthalmology (AAO) annual meeting, New Orleans, Louisiana, USA, October 21-26, 2005.

Dr Gullapalli N Rao

Assumed charge as Chairman of Board of Trustees, President, and Chief Executive Officer of the International Agency for the Prevention of Blindness (IAPB) at the Seventh

General Assembly, Dubai, UAE, September 20-24, 2004.

Delivered **Susruta Lecture** on a 'New Approach to Control Cataract Blindness' at the 20th Congress of Asia Pacific Academy of Ophthalmology (APAO), Kuala Lumpur, Malaysia, March 28-31, 2005.

Delivered first **Prof L P Agarwal Memorial Lecture** at the Dr Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences (AIIMS), New Delhi, India, March 12, 2005.

Selected as Indian participant for US-Indo Workshop on Collaborative Research at Fort Lauderdale, Florida, USA, April 29-30, 2005.

K Purushotham Reddy

Won best poster award for his presentation 'Transdifferentiation of Human Bone Marrow Stromal Cells into Neuroglial Lineage – A Promising Development' at the 73rd annual general meeting of The Society of Biological Chemists (India), Pantnagar, Uttaranchal, India, November 21-24, 2004.

Dr Virender S Sangwan

Won the Col V Rangachary Award for best paper at All India Ophthalmological Society (AIOS) meeting, Bhubaneswar, Orissa, January 13-16, 2005. The paper was entitled 'Clinical Outcome of Cultivated Limbal Epithelium Transplantation – first 100 cases'.

Dr G Chandra Sekhar

Elected unanimously as President of the Glaucoma Society of India, November 2004.

Dr Savitri Sharma

Elected Chief Editor of the Indian Journal of Medical Microbiology for the second term at the 27th Annual Congress of Indian Association of Medical Microbiologists at Lucknow, India, from November 25-28, 2004.

Nominated by Department of Biotechnology, Government of India, to the Institutional Board of Safety Committee of Shanta Biotech Pvt. Ltd., Hyderabad.

Afia Sultana

Won a prize for her poster 'Genes, Evolution and Complex Diseases' at the International Symposium on Human Origins & Genetics, National Centre for Biological Sciences, Bangalore, India, February 17-19, 2005.

Dr Geeta K Vemuganti

Awarded National Bioscience Award for Career Development for 2003 – 2004 by Ministry of Science and Technology, Department of Biotechnology, Government of India, New Delhi. She also received the CHEMTECH PHARMABIO 'Outstanding Contribution' Award (Biotech) for 2005 from the CHEMTECH Foundation.

Special award for LVPEI at IAPB

LVPEI's support to the organization of the seventh General Assembly of the International Agency for the Prevention of Blindness (IAPB) received special mention during the Assembly at Dubai from September 20 - 24, 2004. A plaque was presented to LVPEI, which was received by Prof Ravi Thomas, Director.

Product Development

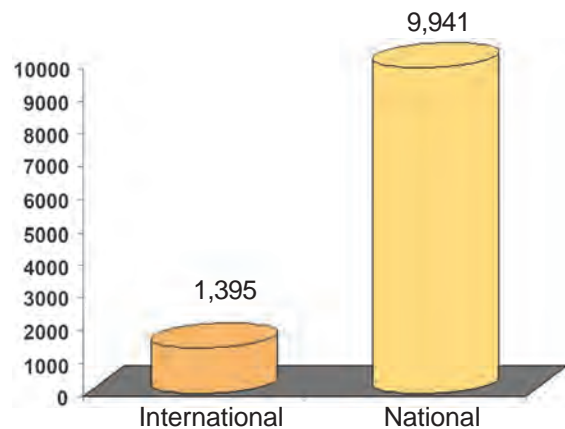
Rotary Club of Hyderabad Corneal Preservation Medium Centre

A total of 12,080 MK medium vials were produced during the year. We distributed 11,336 vials of MK medium to 140 eye banks nationally and 6 eye banks internationally.

AMNIOTIC MEMBRANE

Amniotic membrane pieces of specific sizes were made available to ophthalmologists, including LVPEI alumni (fellows), for use in patients with ocular disorders requiring surface reconstruction surgeries and for research at LVPEI.

- Surgery - 376 pieces (77 were distributed to LVPEI alumni fellows)
- Research - 180



Distribution of Corneal Preservation Medium

International

Bangladesh
Nepal
Philippines
Turkey

Angamaly
Bangalore
Barrackpore
Bathinda
Bhavnagar
Bhopal
Bhubaneswar
Bilaspur
Chandigarh
Chennai
Coimbatore
Cuttack
Dehradun
Dinazpur
Durgapur
Erode

Gorakhpur
Guntur
Gurgaon
Guwahati
Hanumangarh
Hissar
Hospet
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Low vision assessment kit

The Vision Rehabilitation Centres have developed and designed a low vision assessment kit to enable eye care professionals to assess, understand and manage patients with vision loss. The kit will also help them to identify persons with low vision, thus allowing eye care professionals to integrate the component of low vision care into general eye care services.



Central Audio-Visual Unit

This has been a productive year for the video production department. Two prizes were awarded at the **XXII European Society of Cataract and Refractive Surgeons Congress (ESCRS) ALCON Video Competition**, held from September 18-22, 2004 at Paris. These are:

Educational Category

HSV Keratitis in Children: An Introduction to Different Clinical Presentations

2nd Prize: Nibaran Gangopadhyay, India

New Contributors Category

Lamellar Keratoplasty in Limbal Dermoid

1st Prize: Nibaran Gangopadhyay, India

We received an invitation from world-renowned ophthalmologist Dr Robert H Osher to publish two of our video titles in the prestigious **Video Journal of Cataract and Refractive Surgery (VJCRS)** of USA. These titles are:

Management of Posterior Lenticonus with Cataract – Dr Nibaran Gangopadhyay

Late Spontaneous Dislocation or Disenclavation of Iris Claw Intraocular Lens – Dr Mittanamalli S Sridhar

We also entered some of our video productions for a couple of national and international video competitions.

Total videos produced during the year 44, edited 585.

Videos Produced

- The Technique of Single Suture Trabeculectomy – Dr Anil K Mandal
- LASIK-induced Bilateral Peripheral Infiltrative Keratitis: A New Clinical Entity – Dr M S Sridhar
- Tectonic Lamellar Keratoplasty for Keratoglobus with Mechanical Lagophthalmos – Dr Merle Fernandes
- Clinical Features, Natural Course and Surgical Techniques in the Management of Keratoglobus – Dr Merle Fernandes
- Acne Rosacea: Is it Common or Commonly Overlooked in Asia? – Dr Nibaran Gangopadhyay
- Giant Epibulbar Dermoid in Newborns: How far can we go? – Dr Nibaran Gangopadhyay
- Management of Posterior Lenticonus with Cataract – Dr Nibaran Gangopadhyay
- Management of Traumatic and Dislocated Cataract – Dr Nibaran Gangopadhyay
- Evaluation of Congenital Ptosis – Dr Roshmi Gupta & Dr Santosh G Honavar
- Fasanella-Servat Procedure – Dr Roshmi Gupta & Dr Santosh G Honavar
- Levator Resection – Dr Roshmi Gupta & Dr Santosh G Honavar
- Tarso-Frontal Sling Surgery – Dr Roshmi Gupta & Dr Santosh G Honavar
- Myogenic Ptosis – Dr Roshmi Gupta & Dr Santosh G Honavar
- Early Intervention Series 'Starting Early, Staying Ahead,' Part 1 and 2: Gross Motor Development & Fine Motor Development – Mallineni Sharmila
- Management of Late-onset Leaking Bleb (AIOS) – Dr Partha Mandal
- Scleral-fixated IOL Implantation: Indications, Surgical Technique and Complications – Dr Merle Fernandes & Dr Avinash Pathengay
- Laser Assisted Sub Epithelial Keratomileusis – Dr A K Bansal
- Exophthalmometry: Principles and Applications – Dr Santosh G Honavar, Dr Milind N Naik & Ms Garima Tyagi
- Vitamin A and the Eye (Medical education) – Dr Nibaran Gangopadhyay
- Cricket Ball Injuries and the Eye: Wearing a Helmet at Play – Dr Subhadra Jalali
- Intracameral Injection of Perfluoropropane Gas (C₃F₈) in Acute Corneal Hydrops – Dr M S Sridhar
- External Dacryocystorhinostomy: Therapeutic Probing for Congenital Nasolacrimal Duct Obstruction – Dr Santosh G Honavar & Dr Milind N Naik
- Jones Procedure for Lower Eyelid Senile Entropion: Lateral Tarsal Strip Procedure – Dr Milind N Naik & Dr Santosh G Honavar

Dubbed into Spanish

- Blumenthal Technique of Manual Small Incision Cataract Surgery
- Therapeutic Penetrating Keratoplasty
- Tissue Adhesives in the Management of Corneal Perforations
- A Better Way to Manage Phacolytic Glaucoma – Dr A K Mandal & Dr Jyoti Matalia
- Vitamin A and the Eye (Patient Education) – Dr Gullapalli N Rao & Dr Nibaran Gangopadhyay

Our Support

Our steady growth and commitment to quality has been possible because of the compassion and generosity of our patrons, supporters and contributors. We are grateful to individuals, institutions and the industry, across the world, who have brightened many lives by their munificence.

They are our extended family – we are indebted to all of them.



So that they may see....

In each issue of our Activity Reports (Quarterly and Annual), we present selected profiles of our major supporters. In the next few pages we present some interesting stories of these generous individuals and dedicated organizations.

(In the past issues, we have presented profiles of Mr Sreekanth Ravi and Mr Sudhakar Ravi of California, USA; Dr K Anji Reddy of Dr Reddy's Laboratories Limited, Hyderabad, India; Mr Subba Rao Makineni, California, USA; and Mr P K Kanoria, Kolkata, India).

L V Prasad Eye Institute is managed by two trusts: Hyderabad Eye Institute and Hyderabad Eye Research Foundation. All donations made to Hyderabad Eye Research Foundation are 125% exempt under section 35 (i) (ii) and donations made to Hyderabad Eye Institute are 50% exempt under section 80G of the Income Tax Act.

From our archives

A far-sighted donor who made it all happen



Dr GN Rao, Late Mr LV Prasad, then Chief Minister of Andhra Pradesh Mr NT Rama Rao, and Governor of Andhra Pradesh Mr Sushil Kumar Shinde, then Finance Minister of Maharashtra, at the foundation stone laying ceremony of LV Prasad Eye Institute

In 1982, Dr Gullapalli N Rao decided to give up his successful career at Rochester, USA, and return to India to set up the best possible eye centre in Hyderabad. By 1986 he had mobilized some funds by networking in the United States and India with support from family and friends.

It was around this time that noted film producer Mr L V Prasad, based in Hyderabad, was looking for a good medical or educational project to lend support to. His Hindi film *Ek Duije ke Liye* had been a great hit and he wanted to use the profits for a socially relevant cause.

“We had just acquired a large tract of land in Banjara Hills, and had a fund of about Rs 1 crore, which we thought could be used for a multi-speciality hospital,” says Mr Ramesh Prasad, Mr L V Prasad’s son and now chairman and managing director of Prasad Film Laboratories.

Mr Ramesh Prasad met Dr G N Rao through a common friend, Dr Mullapudi, a successful cardiac surgeon in USA, (now Founder and Chairman of Usha Mullapudi Cardiac Centre in Hyderabad). Dr Rao’s proposal to set up an eye centre in Hyderabad was put forward to Mr Ramesh Prasad. The idea was accepted by Mr L V Prasad, who felt it was absolutely fitting that the fund should be used to make it possible for others to appreciate the visual beauty of life.

He offered Dr Rao five acres of the tract he had acquired for Prasad Laboratories in Banjara Hills, a prime part of the city, for the eye hospital. In October 1986 Dr Rao returned from the United States to break ground on the allocated land. Soon the new hospital was under construction.

On June 1, 1987, a little over six months since the first spades hit the ground next to Prasad Film Laboratories, L V Prasad Eye Institute was ready for its first patients. One who would pay, another who could not. The first two patients were an industrialist’s son and a gardener from Prasad Laboratories. This would be the model by which the hospital would operate. Fifty percent of all services reserved for those who could not afford to pay.

Mr Ramesh Prasad continues to be involved as a Trustee, contributing every year through Prasad Charities to support L V Prasad Eye Institute and its programs to fight avoidable blindness.

A beacon of light across the continents



Sight Savers International (SSI), UK, was set up in the 1950s by Sir John Wilson, with a mission to help people in the world's poorest countries to see again and to promote the rights of people whose blindness could not be cured. He laid the foundation for an international organisation for restoring sight in the developing world.

Sight Savers works with local partners in developing countries, providing support to eye health, education and rehabilitation projects as well as helping to develop partner capacity and advocacy work. It does not implement projects directly, preferring to work through government and local non-government organisations to set up appropriate, sustainable and cost-effective services in poor and underserved areas. The partners implement the programs, using local staff for service delivery. Today it has a presence in 32 countries, focussing on developing services appropriate to local needs.

Nine out of 10 blind people live in developing nations and 75 per cent of the global blindness can be prevented or cured. Since its inception Sight Savers International has helped restore sight to over five million people and treat over 70 million people for potentially blinding conditions. In addition to providing treatment for curable blindness, Sight Savers encourages equal rights, responsibilities and opportunities for people who are irreversibly blind or severely visually impaired. Their pioneering work includes the first statistical evaluation of blindness in Africa (which revealed that a large percentage of blindness was

preventable); groundbreaking research in West Africa to identify the cause of river blindness (onchocerciasis) followed by a disease control programme; and the launch of cataract surgeries in India through village camps.

Sight Savers was also one of the driving forces behind the establishment of the World Health Organization's Prevention of Blindness (PBL) Programme and the International Agency for the Prevention of Blindness (IAPB), to raise global awareness about the need to prevent blindness. It developed a comprehensive eye services model, linking eye care, education and rehabilitation services. Besides providing treatment to restore sight, the organization also supports efforts towards the rehabilitation of those who are irreversibly blind.

Sight Savers' partnership with LVPEI started in 1990 in the area of education; they were the first international non-governmental development organisation (INGDO) to support the fellowship programmes at LVPEI to encourage human resource development that would contribute to excellence in eye care all over India and other developing countries. Subsequent years saw SSI's bond with LVPEI getting stronger with the development of the first dedicated Children's Eye Care Centre in the developing world, low vision rehabilitation programmes, more HRD, and significant involvement in the Institute's rural eye health programme at all levels. Till date, SSI remains LVPEI's largest INGDO partner.

A Pioneering Partner

Dr Badrinarayan Ramulal Barwale's association with LVPEI began nearly 15 years ago. In 1991, he first supported the setting up of a Library and Resource Center at the Institute. The Barwale Mathoshri Library has come to symbolise a critical component of LVPEI's Education Centre through which scores of eye care professionals pass each year from all parts of the world. The unique features are its accessibility to everyone in the country and elsewhere round the clock.

Dr Barwale's interest in eye care was sparked off in 1987 when he developed glaucoma. His condition was treated successfully using the Yag laser, a facility then available only in a few Indian cities. This led him to set up an advanced eye care center, Shri Ganapati Netralaya, in his hometown Jalna, Maharashtra.

Chairman of Maharashtra Hybrid Seed Company (Mahyco), Dr Barwale has been a pioneer in India's private seed industry. Coming from a family of land-owners, he had settled down naturally to farm on the family land. A chance encounter in the late 1950s set him on the course of what was to be his mission in life. At the World Agricultural Fair in New Delhi, he met scientists of the Indian Agricultural Research Institute who gave him seeds for a new high-yielding okra (*bhindi*) hybrid. The seeds yielded nearly twice as much as regular seeds, so Dr Barwale turned to seed production. When he discovered that dealers were selling the seeds to farmers at exorbitant prices, he began marketing the seeds directly to farmers at fair prices.

As India's largest private sector seed company, Mahyco has used pioneering technologies to boost the nation's food supply. Dr Barwale has received a lot of recognition, including the Padma Bhushan and the World Food Prize, which is equivalent to the Nobel Prize for food.

Dr Barwale considers the sense of sight to be the most precious sense of human beings. He also believes that technological advances should benefit the rich and poor alike. He has been a supporter of LVPEI for several years,



Barwale Mathoshri Library at LVPEI

contributing towards the Institute's infrastructure and for the advanced training of ophthalmologists. He has also provided significant support in the areas of non-paying patients' care and education.

He believes in not just giving but in giving wisely, in terms of one's wealth, time and experience. Dr Barwale thinks that giving wealth is easy, but fulfilling the dream behind the act of giving is difficult and the recipient has the responsibility of realizing the donor's dreams. We, at LVPEI, hope he is content with the trust he has reposed in us.

A vision for the world



In 1853 John Jacob Bausch, a German immigrant in Rochester, New York, set up a small optical shop. His friend Henry Lomb loaned him \$60 when money was tight, on the assurance that he would be made partner if the business prospered. Business was good and soon the Bausch & Lomb partnership was formed.

By 1903, Bausch & Lomb owned several patents for microscopes, binoculars, and other technologically innovative products. The spectacle frames and other optical products that they manufactured called for great manufacturing precision. They produced the first optical quality glass in America, as well as revolutionary sunglasses for the army in World War – I. Their lenses were used for the cameras that took the first satellite pictures of the moon.

In 1971 Bausch & Lomb introduced the first soft contact lenses. A few years ago they launched a revolutionary method of correcting refractive errors using laser technology; their latest wavefront technology uses a customized Zyoptic laser. They continue to be the world's largest provider of eye care products, making soft and rigid gas permeable contact lenses and lens care products, in addition to ophthalmic surgical and pharmaceutical products. They are one of the most respected global healthcare brands.

L V Prasad Eye Institute's partnership with Bausch & Lomb (B&L) began in 1989 with the setting up of the Institute's

B&L Contact Lens Centre. This was followed by the development of the Indian Contact Lens Education Programme (ICLEP). Supported entirely by Bausch & Lomb, this program has trained over 3000 contact lens professionals thus far, raising the standards of contact lens practice throughout India.

In 2000 B&L responded to a need of the Institute, contributing in a big way towards the creation of a School of Optometry, named after Bausch & Lomb. The school successfully launched a Bachelor of Science Degree in Optometry, in collaboration with the Birla Institute of Technology and Science, thus partnering LVPEI in building human resources that are critically needed for the country. In addition to offering a degree in Optometry, the school trains 'Vision Technicians' (for providing primary eye care in remote rural areas) and ophthalmic technicians, while also offering refresher courses for Paramedical Ophthalmic Assistants (PMOAs) in the government sector.

Bausch & Lomb is also constantly updating the equipment used in patient care areas at the Institute, as well as at satellite and partner facilities. Our ophthalmologists provide important feedback to manufacturers like Bausch & Lomb in an attempt to improve products and services.

Both LVPEI and Bausch & Lomb share a common vision to make people see and see better and, through this partnership, have reached out to millions in this country and the region.

A collaborator in frontline eye research



The Institute for Eye Research (IER) is one of Australia's elite medical research institutes. Located in Sydney, the Institute focuses on excellence in eye and vision research through investment in people, systems and innovation.

The Institute for Eye Research makes significant contributions to national and international eye care research, education and business development and is involved in a range of projects in four key areas:

- ◆ Management, prevention or cure of refractive errors
- ◆ Management, prevention or cure of infection and inflammation of the cornea
- ◆ Vision and eye care education
- ◆ Public health

IER has worked closely with LVPEI in a number of important research and education areas. A key collaboration has been the clinical testing of new vision correction and care systems. The human eye presents a unique environment, which has proved impossible to accurately model in vitro. A feature of the LVPEI and IER research is the recognition that the only way to adequately assess certain important aspects of prototype behaviour is to conduct a clinical evaluation in human subjects.

LVPEI's clinical studies and patients have been incorporated into the work of IER's International Clinical Trial Centre, which is now a world premier site for the performance of clinical trials. The collaboration between the two organizations has contributed to new understanding of the eye, and to the development of new methods of

vision correction – bringing clear sight to thousands of people around the world.

LVPEI has also worked closely with the Institute of Eye Research in the development of educational programs to support the improvement of eye care. The Bausch and Lomb School of Optometry, established with the support of IER, trains students from across Asia in order to increase and improve eye care services. It will also conduct research in optometry to improve the standard of eye care practices in India and Asia.

The IER and LVPEI have also jointly developed educational materials for use by eye care practitioners, students, and educators around the world. Clinical guides such as the IER/LVPEI Differential Diagnosis Guide to Microbial Keratitis and Contact Lens Peripheral Ulcer is an invaluable resource for contact lens practitioners.

LVPEI and IER have a long history of conducting staff exchanges in a range of areas including clinical optometry, statistics, IT, and administration; contributing to skill enhancement and strengthening the links between the organisations.

Both LVPEI and IER, together with the International Centre for Eyecare Education and the Centre for Eye Research Australia, are now core participants in the Vision Cooperative Research Centre, which carries out major research programs in the areas of myopia, presbyopia and vision care delivery.

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