Annual Report 05

Includes a review of the activities of:

Centre for Eye Research Australia
University of Melbourne Department of Ophthalmology
Eye Research Australia Foundation
Our Vision...

"The elimination of vision loss and blindness in our community"

Centre for Eye Research Australia
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Vision, Mission and Goals

1. VISION
   The elimination of vision loss and blindness in our community.

2. MISSION
   To become the pre-eminent centre for eye research in Australia, renowned for our work in the prevention, treatment and rehabilitation of eye disease, vision loss and blindness, through our research and teaching.

3. GOALS
   (i) Conduct Quality Research
       > Identify major factors leading to vision impairment
       > Develop early detection of potential vision impairment
       > Develop intervention strategies
       > Develop models of optimum care
   (ii) Application of Research into Best Practice
       > Develop and promote preventative behaviours through community awareness to reduce the incidence and severity of eye disease
       > Develop and promote screening activities for treatable eye diseases and other causes of vision loss
       > Develop and promote models of best practice in the management of eye disease
   (iii) Foster a Quality Learning Environment
       > Promote a learning environment
       > Undertake regular reviews of the range, objectives and structure of teaching
       > Provide a positive environment for student recruitment, assessment and support
   (iv) Effective and Efficient Management
       > Develop and continuously improve management processes relating to:
         › People and organization development
         › Business management and marketing
         › Finance and administration
Looking back over 2005, I am pleased to recall all the achievements the Centre for Eye Research Australia has made throughout the year.

A number of highlights stand out. The awarding by the State Government of a Science, Technology and Innovation Grant to Associate Professor Tien Wong to establish and develop the Retinal Vascular Imaging Centre at the Royal Victorian Eye and Ear Hospital was a major landmark for us. Another milestone for 2005 was the launch in June of our second report with Access Economics, “Investing in Sight: Strategic Interventions to Prevent Vision Loss in Australia”. Congratulations to all those involved in the production of this important document that outlines for the first time a cost-effective intervention package to address the burden of eye disease in our community.

The creation of two new Professorial positions and the subsequent appointment of two outstanding candidates for these roles was another major development in 2005. We are most grateful for the support we received from the University of Melbourne, the Royal Victorian Eye and Ear Hospital, Alcon Australia, Bausch & Lomb, the Vision Group, Glaucoma Australia, the Victorian Lions Foundation, the Royal Australian and New Zealand College of Ophthalmologists, and the Victorian State branch of the College that has made this possible. We look forward with much anticipation to the arrival in 2006 of Jonathan Crowston as our new Professor of Glaucoma and Rasik Vajpayee as our new Professor of Anterior Segment Surgery.

As alluded to in my Report last year, 2005 saw the merger of two of our stakeholders, the Royal Victorian Institute for the Blind and the Vision Australia Foundation, with the Royal Blind Society, to form the new entity, Vision Australia. As a consequence, Ms Rosanne Cunningham and Mr Malcolm Daubney, who had represented the first two bodies respectively on our Board, resigned, with Mr Gerard Menses, the newly appointed Chief Executive Officer of Vision Australia, taking over as the new entity’s representative. Echoing my sentiments from last year, I would again like to thank Rosanne and Malcolm for their valued contributions to the Centre. I am also most pleased to welcome Gerard as the newest member of our Board. In addition, I take this opportunity to thank our other committed and loyal stakeholders, the University of Melbourne, the Royal Victorian Eye and Ear Hospital, Christian Blind Mission International, Ansell Ophthalmology Foundation, Victorian Lions Foundation and Victorian branch of the Royal Australian and New Zealand College of Ophthalmologists, and my fellow Directors, for their support over 2005.

I must commend Professor Taylor for the outstanding role he plays as Managing Director of the Centre, and it was with great pleasure that we recognised his accomplishments and achievements this year on his 15th anniversary as Head of Department.

To all our private and public benefactors we are very appreciative of the generous support for our research, and to our many partners, collaborators, colleagues and friends, many thanks for the continued and valued relationship with the Centre.

I look forward with enthusiasm to 2006 when a whole new vista of opportunities will await us.
Managing Director’s reports easily can become far too wordy. This is an increasing problem as organizations grow as there is so much more to report and many more people to recognise.

The Centre for Eye Research Australia is growing, and growing well. When you step back from the day-to-day activities you appreciate how much things are changing and developing. And how much we have achieved.

2005 has been a great year for our research, teaching and community involvement. Our success rests on our people, our resources and our collaborators.

PEOPLE

Our superb staff is our greatest asset. We work hard to keep them well supported, happy and productive. The wonderful work of Associate Professor Tien Wong was recognised by the very prestigious award of the Sir Edward Woodward Medal from the University of Melbourne.

Two medals are given each year to University faculty to recognise the most significant contributions made in the fields of science and technology and the humanities in the preceding three years. We were delighted to see Tien’s contribution in understanding retinal vascular changes recognised in this way.

At the start of the year, Associate Professor David Mackey was awarded a Pfizer Fellowship which will fund his research for the next five years. This is the first time this prestigious award has been given to someone in a surgical discipline. At the end of the year, David made a superb presentation on the genetics of ocular disease as the Sir Norman Gregg Lecturer at the Royal Australian and New Zealand College of Ophthalmology Congress.

Associate Professor Jill Keefee was one of the keynote speakers at the major international meeting on low vision, Vision 2005, held in London and Associate Professor Robyn Guymer was elected to the Macular Society.

We all join in congratulating the individuals on their recognition, but as they would be the first to recognise, their success is based on the joint effort of all those in their respective teams.

Through the year, we were recruiting for two new senior positions and in the last week of the year, we were delighted to invite Rasik Vajpayee as the new Professor in Anterior Segment Surgery and Jonathan Crowston as the new Professor in Glaucoma. Both will take up their new positions during the course of 2006.

We were delighted to be able to recruit Ms Gerlinde Scholz who will become our General Manager in 2006. This is a newly created position to manage the combined activities of the Centre and the Foundation.

One very well kept secret was the surprise reception the Board and staff gave me in August to mark the 15 years that I have been Head of Department. It is not often that I am caught short for words and it was just wonderful to catch up with so many colleagues and friends from so many different fields.

RESOURCES

We started the year in the middle of renovations and also completed the year in the middle of renovations.
Fortunately, they were not the same renovations. In March, the renovations of the McComas Lab were completed for the Ocular Genetics Unit and the staff have benefitted greatly from the improved work environment.

Tien Wong’s State Government Science, Technology & Innovation (STI) Grant started in the middle of the year. This grant of $2 million from the State Government is to support the Retinal Vascular Imaging Centre (RetVIC) Project. Partner contributions bring the total project to more than $6 million over three years. This STI grant has enabled us to redevelop the seventh floor of the Smorgon Wing in the Royal Victorian Eye and Ear Hospital to accommodate RetVIC.

The redevelopment will include a new glaucoma laboratory, space for clinical genetic studies and a state-of-the-art redevelopment of the Lions Eye Bank, to enable organ culture. We gratefully appreciate the support from the Victorian Lions Foundation. These ambitious renovations should all be completed in the first months of 2006.

In addition to the STI Grant, we have continued to be successful with National Health and Medical Research Council and Australian Research Council applications and also very significant support from a number of trusts and foundations as is set out elsewhere in this report. The Eye Research Australia Foundation gave significant support to a number of our activities and we thank all the donors to the Foundation for their support and encouragement. Without the support in the form of grants and donations our research would not be possible.

COLLABORATORS

Vision CRC

We are proud to be one of the four core partners in the Vision Co-operative Research Centre (Vision CRC). This is an enormous undertaking with partners selected from the best in the field around the world.

One of the projects we are involved with in the Vision CRC is the development of a non-mydriatic retinal camera. Many of you may have seen Mr Greg Koennecke and his camera as finalists for the New Invention of the Year on the ABC show The New Inventors.

University of Melbourne

The Centre and the University Department of Ophthalmology work very closely together and we try to make the interaction as seamless as possible. Although the Centre is an independent research institute, it highly values its close links with the University and looks forward to participating in the challenges implicit in the University’s new direction outlined in “Growing Esteem”. We recognise and appreciate the support we receive from the Dean, Professor James Angus, and all those in the University.

Royal Victorian Eye and Ear Hospital

The Eye and Ear is also a major stakeholder in the Centre and we highly value our close clinical and research
people who were blind in the world had decreased. This success, in part, is due to the successful implementation of the VISION 2020 Global Initiative and was documented in a report entitled “State of the World’s Sight” of which I was a co-author. This report also highlighted the important contributions made by the Centre, including the economic analysis we released in 2004, “Clear Insight”.

OUR COMMUNITY INVOLVEMENT

In June we launched a new report, “Investing in Sight: Strategic Interventions to Prevent Vision Loss in Australia”, prepared in collaboration with Access Economics. This report built on our first report “Clear Insight: The Economic Impact and Cost of Vision Loss in Australia” and set out a suite of strategic interventions to prevent vision loss in Australia. This report has also been widely acclaimed and has helped frame the discussion of eye care delivery in Australia.

At the end of the year, three government reports were released. Each has built on our research findings and together they may well change the way eye care is delivered in Australia.

These reports include the Victorian Ophthalmology Service Planning Framework, and the National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss, and the National Trachoma Surveillance Unit and Strategy, both released by the Commonwealth Government. We hold much hope that with their full implementation, these programs will significantly improve the eye health of all Australians.

ACKNOWLEDGEMENTS

Finally I must thank the Board and particularly the Chairman, Ms Tina McMeckan, for their help and support throughout the year. We greatly appreciate the experience and perspective the Board brings. I also want to thank all those who serve on the Board Committees and the other internal committees we have within the Centre.

In addition, I want to recognise the contribution made by the Eye Research Australia Foundation Trustees and Fundraising Committee and particularly recognise the contributions of Professor John Funder and Mr Peter Nankivell. Funding from the Foundation enables us to start innovative new projects and is critical for our success. I also want to thank Laurie Staub for her contribution. We were sorry to farewell her at the end of the year.

Finally let me congratulate all the staff on their great achievements through the year and wish them well and every future success. There are too many to mention individually and still aspire to be succinct. Their achievements ring throughout this report which we all present with pride.

Professor Hugh R. Taylor AC
Awards for 2005

"The Centre for Eye Research Australia’s major resource, without question, is its people"

RESEARCH AWARD
Dr Gabriella Tikellis

RESEARCH ASSISTANT/ ADMINISTRATION AWARD
Ms Lisa Kearns

TRAVEL AWARD
Dr Heathcote Wright

Dr Gabriella Tikellis is the recipient of the 2005 CERA Research Award for her outstanding contribution to the Retinal Vascular Imaging Centre (RetVIC) over the last 12 months.

Gabriella has established and managed the creation of the grading unit – the absolute heart of RetVIC’s aims and objectives. She has set a shining example that all image analysis staff should aim to aspire to through the creation of unique grading protocols. These have greatly assisted RetVIC in the assessment of retinal images. Along with this great achievement, Gabriella has also found time to supervise students and be a key component of the management team in RetVIC. This activity has not prevented her from also working on many scientific presentations and papers.

In short, Gabriella has made a contribution to the establishment of RetVIC that is significantly “above and beyond” her contracted commitment. She is a key asset to the Centre and is most deserving of this recognition.

Ms Lisa Kearns is the recipient of the 2005 Research Assistant / Administration Award.

Lisa has efficiently organised a large amount of fieldwork in Tasmania, Queensland and Victoria, as well as co-ordinating the submission, review and publication of 14 papers in the last 12 months. This has involved liaising with over a dozen overseas co-authors and dealing with all the complications of getting signatures for submission. Lisa also managed the Clinical Genetics Unit’s move and temporary relocation during the recent renovations to the Hospital’s 7th Floor, and took on the added responsibility for all the other Units involved.

Lisa communicates well with patients, study families, and Centre and Hospital staff at all levels. She works long hours and often interstate. She is currently undertaking a genetic counselling course at the University of Melbourne that will assist greatly in future genetic eye research projects.

Dr Heathcote Wright is the recipient of the 2005 CERA Travel Award. This will allow him to present results from the research he is doing for his PhD on the evaluation of the health impact of swimming pools in remote indigenous communities of the Northern Territory, at the Annual Research in Vision and Ophthalmology Meeting in Fort Lauderdale in May 2006.
A baby in an African village taking part in vision testing, courtesy of Professor Taylor
Activities as a World Health Organization Collaborating Centre

The Centre was first designated a WHO Collaborating Centre for the Prevention of Blindness in 1992. In 2002, this designation was renewed for a third time.

The terms of reference of the Centre are to:

- participate actively in the development of activities for the prevention of blindness
- provide facilities for the training of personnel at different professional levels, especially from developing countries
- conduct applied field research on the epidemiology, management and operational aspects of avoidable blindness
- foster a multidisciplinary approach to the promotion of eye health and to the delivery of eye care, including rehabilitation, to all
- participate in the collection, elaboration and distribution of pertinent information.

The Centre complies rigorously with the WHO’s terms of reference and Professor Taylor and Associate Professor Jill Keeffe are active proponents of the WHO’s prevention of blindness programmes. As part of this commitment, Associate Professor Keeffe visited Pakistan in June to review projects supported by Sight Savers International, was an invited speaker at the Congress of the Brazilian Low Vision Society in Sao Paulo also in June, and facilitated a low vision workshop in Nairobi, Kenya, organised by Sight Savers International, in July. Professor Taylor is an adviser to the WHO Alliance for the Global Elimination of Trachoma and in this capacity represented the Centre at two WHO meetings in Geneva in March. As detailed next, we also host the VISION 2020 Co-ordinator for the Western Pacific Region and work closely with the WHO Regional Office in Manila.
Children in Fiji taking part in vision testing
VISION 2020: The Right to Sight
A Global Initiative for the Elimination of Blindness

VISION 2020: The Right to Sight, a global initiative to eliminate avoidable blindness by the year 2020, was launched in 1999. The successful implementation of this initiative, that builds on the alliance between WHO and IAPB, has contributed greatly to a decrease in the number of people blind and vision impaired in the world for the first time ever, as announced by WHO on World Sight Day this year, Thursday 13 October, and documented in the 2005 WHO publication, “State of the World’s Sight, VISION 2020: The Right to Sight 1999 – 2005”.

This report confirms that the Centre’s “Clear Insight: The Economic Impact and Cost of Vision Loss in Australia” is the most comprehensive national-level assessment of the economic cost of visual impairment prepared to date.

Dr Richard Le Mesurier is the Regional Co-ordinator for the Western Pacific for VISION 2020 and Professor Taylor is Regional Chairman. Steady progress continues in the Region, with the WHO Regional Office in Manila continuing to be supportive as eye care integrates further with non-communicable and lifestyle diseases.

Highlights in the Western Pacific for 2005 included:

i) The increasing support by the Philippines Government for the National Vision Action Plan.


iii) VISION 2020 presentations at the very successful 57th Clinical Ophthalmology Congress of the Japanese Ophthalmology Society held in Hokkaido in October.

iv) The first East Asia Eye Health Forum held in Mongolia with participants from China, Japan, South Korea, Taiwan, Russia and Mongolia, as well as WHO and IAPB.

v) The presentation on the current situation in Vietnam at the IAPB Council of Members meeting in Hanoi in September.

vi) The publication in November 2005 by the Australian Government of a National Eye Health Framework.

vii) Movement in New Zealand to adopt and plan for the development of a VISION 2020 New Zealand National Plan.

viii) The official launch of the Fiji National Plan by the Ministry of Health in April 2005.

ix) The revision and improvements to the University of Papua New Guinea Masters and Diploma courses in Ophthalmology, sponsored by the Fred Hollows Foundation.

VISION 2020: THE RIGHT TO SIGHT AUSTRALIA
Vision 2020: The Right to Sight Australia, was launched in October 2000 by the then Director-General of WHO, Dr Grö Brundtland, and the Federal Minister for Health, the Hon. Dr Michael Wooldridge. With 47 partner organizations, Vision 2020 Australia initiates public awareness activities, facilitates opportunities for partner collaboration and leads advocacy efforts aimed at the prevention of avoidable blindness, vision loss and improved vision care.

Of particular note this year was the important role Vision 2020 Australia played in the nationwide consultation process that resulted in the publication by the Federal Government in November of the National Eye Health Framework.
The Vision Initiative in Victoria

The Vision Initiative is a large-scale public health program committed to improving the vision of the community by health promotion and the development of best professional practice for eye care services.

The Centre’s research findings and public health and health promotion activities formed the basis for this program that is managed by Vision 2020 Australia and funded by the Victorian Government. We are very pleased to be involved in the monitoring and evaluation of this program as part of our work in the Vision Co-operative Research Centre.

On 17 August, we were invited to State Parliament to promote The Vision Initiative and the importance of regular eye examinations. It was a most successful event, with members of our field team conducting eye tests on 71 Parliamentarians, including Ministers and Opposition Members. Our thanks to the Hon. Glenyys Romanes MLC for her help in facilitating and co-ordinating this event.

Professor Taylor, the Hon. Bronwyn Pike MP, Minister for Health, and Associate Professor Jill Keefé at Parliament House
Vision Co-operative Research Centre

The five Vision CRC projects with which the Centre is engaged include:

> the genetics of myopia
> monitoring and evaluation of The Vision Initiative
> eye care delivery models
> enabling technology
> Aboriginal eye health

Research staff involved in the Vision Care Delivery projects attended a two-day workshop at the Centre at the end of May that resulted in the development of a common framework for documentation and evaluation of eye care projects and the formulation of short and long term goals for each of the projects.

A meeting of the Vision CRC Executive was also held at the Centre in May 2005, and Ms McMeckan, Professor Taylor and Dr Paul Baird, Head of the Centre's Ocular Genetics Unit, attended meetings at the LV Prasad Eye Institute, another of the core participants of the Vision CRC, in Hyderabad, India in November.

Research Assistant Ms Pam Garoufalis examines a participant in our study on the genetics of myopia

The Centre continues its important role as one of the four core participants in the Vision CRC, and both our Chairman, Ms McMeckan, and Managing Director, Professor Taylor, are members of the Vision CRC Board.
Research Assistant Ms Kelly Pertile, Ocular Genetics Unit
Basic Science Division

Director:
Professor Hugh R. Taylor AC

The Basic Science Division comprises the Ocular Genetics Unit, headed by Dr Paul Baird, and the Corneal Research Unit, headed by Dr Graeme Pollock.

OCULAR GENETICS UNIT

Research in this Unit focuses on two of the major causes of visual impairment and blindness in Australia, myopia and age-related macular degeneration (AMD).

Myopia: As part of our work with the Vision CRC, research commenced in 2003 to investigate the genetics of myopia.

1. Identification of myopia disease genes: One thousand, seven hundred and forty eight individuals with myopia of <-3.0D were invited to participate in this study through the Melbourne Excimer Laser Group. Two hundred and ninety individuals with a positive history of myopia were identified, from whom 980 individual family members have been recruited. Recruitment of additional probands (people forming the starting point for the genetic study of a family) is also ongoing. Three of the largest families have been genotyped at the Australian Genome Research Facility. Of the largest family, which contains 35 individuals, half are affected with myopia of –0.5D or less. Statistical genetic analysis of these families is to commence shortly.

2. Gene-environment interaction – twin study: A twin study to investigate features of myopia that are inherited, as well as to better establish the heritability of previously described myopia variables, continues. Twin recruitment through the Australian Twin Registry has been completed, and 620 twin pairs have been examined. Statistical analysis of data generated from these examinations is now underway.

3. Case control association study: The Myopia-2 locus (MYP2) on chromosome 18p11 was identified originally as a region exhibiting linkage to high myopia (<-6D). Subsequent studies have limited the minimal disease interval to approximately 2.2cM. A study investigating the use of single nucleotide polymorphisms (SNPs) to identify if association exists with high myopia is currently in progress.

Age-related Macular Disease:

Three major studies were undertaken in 2005:

1. Donor eye collection: Thirty donor eyes, collected through the Lions Eye Bank and St Vincent’s Hospital in Melbourne, and Flinders Medical Centre in South Australia, have undergone testing for a range of antibodies against proteins typically associated with neurodegenerative disorders including Alzheimer’s disease. In addition, collaborative research is being undertaken with the University of Melbourne and St Vincent’s Hospital to investigate the expression of a number of genes and their pathways in samples from these eyes.

2. Genetic analysis in AMD: The recently described Y402H change in the complement factor H (CFH) gene of the alternative complement pathway was examined in the Unit’s collection of AMD patients. A significantly increased association of this variant with disease was identified.

Previous research in this Unit has demonstrated association of the apolipoprotein (APOE) gene in both case control studies of AMD and also in progression of disease. Studies using SNPs are currently underway on the APOE and adjacent APOC1 genes that will allow definition of disease-associated haplotypes for the APOE/APOC1 gene region in AMD.
3. Twin study: A questionnaire, eye exam and DNA sample have been taken from 340 twin pairs aged over 50 years recruited through the Australian Twin Registry from Victoria, to examine those phenotypic features of AMD that have a genetic basis. Data analysis is currently underway.

CORNEAL RESEARCH UNIT

This Unit incorporates the Lions Corneal Donation Service, the research activities of the Melbourne Excimer Laser Group, and Corneal Studies:

Corneal Studies

1. The Bacterial Keratitis Clinical Trial is a clinical trial of three topical antibiotic regimes (Moxifloxacin versus Ofloxacin or a combination of Tobramycin / Cefazolin) for the treatment of microbial keratitis. Two hundred and twenty nine patients with the most severe corneal infections were enrolled in this prospective randomised control trial that was completed in October this year. Our results confirm that all treatments were equally safe and well tolerated, with no serious events related to therapy being reported.

2. Two randomised clinical trials of Cyclosporin A were conducted this year, one in the management of acute corneal graft rejection, the other on treatment of steroid dependent allergic conjunctivitis. In the former trial, still ongoing, 97 of 125 patients have been recruited in an effort to assess whether topical cyclosporin A has a demonstrable effect when used in conjunction with topical steroids in the treatment of acute graft rejection.

3. A retrospective review of all keratitis patients with positive fungal cultures from corneal or associated samples, presenting to the Royal Victorian Eye and Ear Hospital from July 1996 to May 2004, was undertaken. Ocular trauma, chronic steroid use and ocular
surface disease were found to be the major predisposing factors, with *Candida albicans* being the most common fungal isolate.

4. Construction of bio-engineered basement membrane combined with ex-vivo amplification of corneal epithelium for ocular surface transplantation: As noted in the Annual Report last year, we have been successful in cultivating and maintaining corneal epithelial stem cells for four weeks. The next step is to combine the manufacture of a bio-engineered culture of ocular surface cells with tissue engineering of an artificial basement membrane, using polymers (biological and synthetic) in the cell culture plates to improve cell transfer. In this way, it is hoped to replace an abnormal and diseased ocular surface with a bio-engineered healthy replacement, using the patient’s own cells as the source of this renewed ocular surface. This next stage of research commenced in November.

**Excimer Laser Refractive Surgery Research**

The Centre continues to have a role in the ongoing evaluation of excimer laser procedures, both in the correction of refractive error and in the treatment of corneal disease.


2. The genetics of myopia and keratoconus.

3. The role of excimer laser phototherapeutic keratectomy in the treatment of painful bullous keratopathy. This study has been completed and the data are currently being analysed.


5. The evaluation of quality of life pre- and post- refractive surgery.

**Lions Corneal Donation Service**

As the name implies, the Lions Corneal Donation Service supplies donor corneal tissue, sclera and amniotic membrane to surgeons for transplantation procedures, with over 6,000 separate items of human tissue being provided during the Service’s nearly 15 years of operation.

In a follow up to previous research conducted in 2002 that examined the medical potential for eye and tissue donation in a public metropolitan hospital, audit and examination of records has continued over the ensuing years, enabling an analysis of changing patterns of suitability from 2002 – 2005.

To celebrate the 100 year anniversary of the first corneal donation and transplant, a press briefing was held at the Royal Victorian Eye and Ear Hospital on 7 December 2005. Present were three transplant recipients and the widow of one of our corneal donors. Our thanks to them all for their help in promoting the important issue of corneal donation to help restore the sight of others.
Executive Assistant Ms Fulya Torun and Ophthalmology Resident Dr Andrea Grosso, Retinal Vascular Unit
Clinical Epidemiology Division

Director: Associate Professor Tien Wong

The Clinical Epidemiology Division comprises the Retinal Vascular Unit, headed by Associate Professor Wong, and the Education Unit, headed by Associate Professor Deb Colville.

RETINAL VASCULAR UNIT

Four major research programs are currently in progress:

1. Retinal Vascular Disease - Epidemiology, Cardiovascular Risk and Significance: The objectives of this research are to examine the relationship of retinal vascular signs to subclinical and clinical cardiovascular disease, to determine the predictive ability of retinal vascular signs in clinical settings and to further develop retinal vessel imaging technology. This research comprises seven Australian and six international epidemiological studies, in addition to computer developmental work undertaken in collaboration with the School of Computing at the University of Melbourne.

2. Epidemiology of Eye Diseases: The objectives of this research are to study the epidemiology of major eye diseases including myopia, angle-closure glaucoma, cataract and diabetic retinopathy. This undertaking comprises a total of seven local and international studies.

3. Clinical Treatment of Retinal Vascular Diseases: The objectives of this research are to study the epidemiology and treatment of eye disease, in particular diabetic retinopathy. Two clinical trials, one National Health and Medical Research Council funded, the other supported by Novartis Pharmaceuticals Australia, are currently in progress to test suitable clinical treatments.

4. Retinal Vascular Imaging Centre: The announcement on 14 April 2005 of State Government Science, Technology & Innovation (STI) funding for the Retinal Vascular Imaging Centre (RetVIC) allowed us to commence building of this new facility within the Centre that will provide capability in diagnostic analysis of retinal images for early prediction of vascular diseases. Previous studies have shown that retinal vascular changes predict the risk of heart disease, stroke, diabetes, hypertension, dementia, kidney and other vascular conditions, and RetVIC will translate this research into clinical use. To promote adoption of the new technology, state-of-the-art computer-based imaging systems with telemedicine capability will be developed. RetVIC will co-ordinate and conduct clinical trials and community screening studies and perform cost-benefit and feasibility analyses to demonstrate the clinical utility of retinal vessel imaging for risk prediction.
As a result of our successful bid for STI funding, the State Government is providing $2 million over three years towards the establishment of the Retinal Vascular Imaging Centre.

This funding has allowed the development of a dedicated space for RetVIC on the 7th Floor of the Royal Victorian Eye and Ear Hospital, purchase of imaging equipment, hire of scientific, technical and administrative staff, the running of clinical studies and trials, and the operating costs of imaging. Collaborating partners in this venture are:

> The Baker Medical Research Institute
> BSC Electronics Pty Ltd
> Centre for Vision Research, University of Sydney
> Diabetes Australia
> Eastern Clinical Research Unit, Monash University, Department of Epidemiology
> National Heart Foundation Victorian Division
> National Stroke Foundation
> National Stroke Research Institute
> Pfizer Pty Ltd
> Royal Melbourne Hospital, Department of Neurology
> Royal Victorian Eye and Ear Hospital and St Vincent’s Health, Department of Medicine.

RetVIC will be opened by State Treasurer, the Hon. John Brumby MP, in May 2006.

EVENDE UNIT

Under the auspices of the Standing Committee on Ophthalmology, the Department of Ophthalmology develops curriculum and co-ordinates teaching and assessment in ophthalmology. In addition, undergraduate medical graduates are selected for enrolment in the Advanced Medical Science year that gives them training in various aspects of ophthalmology research.

Undergraduate training of optometry students is undertaken in liaison with the Department of Optometry. Both the Department and the Centre also assist with the provision of lecturers and help facilitate the clinical training in the clinics of the Royal Victorian Eye and Ear Hospital.

Postgraduate education in ophthalmology is conducted under the direction of the Hospital’s Clinical School. Postgraduate research training is also an important component of the Centre’s activities, with postgraduate candidates listed later in this report.
Clinical Research Division

Director:
Associate Professor Robyn Guymer

The Clinical Research Division comprises the Macular Research Unit headed by Associate Professor Robyn Guymer, the Glaucoma Unit headed by Dr Julian Rait, Clinical Genetic Studies headed by Associate Professor David Mackey, and Paediatric Studies headed by Dr Wendy Marshman.

MACULAR RESEARCH UNIT

The Macular Research Unit concentrates on research into age-related macular degeneration (AMD), the leading cause of irreversible vision loss in Australia today. Seven main avenues of research have been developed to investigate this disease, specifically:

1. Determination of the genetic components of AMD: Two studies are currently in progress. The first, the AMD Inheritance Study, concentrates on the collection and maintenance of AMD cases and families to allow the study of genes that might influence this disease. The second is a classic twin study that investigates the various characteristics of the macula using traditional markers of disease together with novel techniques to analyse the macula.

2. Understanding epidemiological risk factors in AMD: One aspect of this research focuses on interpretation of the data obtained following our investigation of the association between cardiovascular health and AMD. A second study aims to investigate simultaneously dietary, genetic and other protective / risk factors for AMD in a large cohort of elderly participants from Health 2000 – The Melbourne Collaborative Cohort Study that was set up in the early 1990s to investigate prospectively the role of diet and other lifestyle factors in causing common chronic diseases in middle-aged Australians. A third approach is based on recent observations that suggest exposure to Chlamydia pneumoniae may be associated with AMD and its progression. This work will continue with the use of donor eyes. The relationship between exposure to C. pneumoniae infection and incidence of AMD will be investigated utilising participants from the Blue Mountains Eye Study conducted in Sydney by Professor Paul Mitchell.

3. Delaying the progression of AMD: The age-related maculopathy statin study aims to determine whether or not statin treatment for three years to people with high risk fundus changes can slow the progression of AMD. Traditional fundus photography and grading of the fundus lesion, as well as a range of novel visual function tests, are being employed to monitor this. The observation that statins can improve retinal function and thereby perhaps limit the decline in function caused by high fat diets has also led to the development of a rat model of high cholesterol intake that hopefully will mimic a model of compromised Bruch’s membrane that may reflect AMD changes.

4. A functional predictive test of AMD: The aim of this project is to identify visual function tests that are highly sensitive and specific indicators of risk of progression to visually devastating complications of AMD. The actual testing suite, developed with Associate Professor Algis Vingrys from the Department of Optometry and Visual Sciences, has been developed to produce best results and approximately 100 people have now been tested.

5. Pathogenesis of AMD: The Unit has continued to co-ordinate the collection of retinal tissue for immunohistochemical studies, with current studies including the...
Associate Professor Robyn Guymer injecting a patient with a new treatment for AMD
staining of retina for fibulins and the new gene Factor H that has been linked with the progression of AMD.

6. International drug trials in AMD: Six international drug company sponsored intervention studies in AMD (two Alcon, two Pfizer, one Novartis and one Genera) are currently in progress.

7. Macular Telangiectasis: An international collaboration has commenced to follow the natural history of this rare disease that manifests as a permanent dilation of groups of capillaries and venules in the macula. It is hoped that understanding this disease may help in its management and provide clues to a better understanding of other macular diseases such as AMD.

GLAUCOMA UNIT

One aspect of this Unit’s research is to conduct clinical trials for various drug companies. In 2005, a five year post marketing safety study of Latanoprost (Xalatan) compared to usual care (Pfizer) was completed, and work continued on the trial of a neuroprotector for Allergan (this trial is due for completion in 2007). In addition, a Computerised Decision Support System for the Management of open-angle glaucoma is being developed. The aim of this project, funded by Allergan, is to improve the visual functioning and quality of life of people with open-angle glaucoma. Ophthalmologists are being recruited from all over Australia to test this software that underwent a major revision to improve functionality and ease of use for participants as a result of a survey of participating ophthalmologists conducted during 2005.

CLINICAL GENETIC STUDIES

Research in this Unit focuses on two areas, dissecting the genetics of glaucoma and its risk factors using a twin study, and investigation of the molecular basis of strabismus (squint).

PAEDIATRIC STUDIES

Research in this area focuses on the anatomy of extraocular muscles as a cause of squints in children.
Population Health Division

Director:
Associate Professor Jill Keeffe

The Population Health Division comprises the Eye Health Promotion Unit, headed by Dr Andreas Müller, the Health Services Research Unit, headed by Dr Ecosse Lamoureux and the Prevention of Blindness Unit headed by Associate Professor Jill Keeffe.

EYE HEALTH PROMOTION UNIT

Research in this Unit focuses on The Vision Initiative, a comprehensive public health program designed to prevent avoidable blindness and to reduce the impact of vision impairment on individuals and the community. During the first half of 2005, Vision 2020 Australia carried out various eye health promotion campaigns with the slogan “Save Your Sight”, mainly via television, radio and newspaper. As part of our remit to evaluate these health promotion activities, a second round of fieldwork, identical to that completed in 2003 to collect baseline data, was undertaken in 17 randomly selected metropolitan suburbs. A total of 1,728 older Victorians were screened and the data obtained are currently being analysed and will be compared with our results from 2003 to evaluate the effectiveness of the “Save Your Sight” eye health promotions.

A second research priority within the Unit is the Lions Eye Health Program-Australia (LEHP-Australia), a community-based health program to prevent vision loss and blindness. This program concentrated initially on diabetic eye disease and glaucoma but was broadened in 2005 to include information on the impact of age-related macular degeneration and the needs of people with low vision.

HEALTH SERVICES RESEARCH UNIT

Two major projects were conducted in 2005:

1. Vision impairment and quality of life: the development of a new education and self-management program. Evidence from our work at the Centre and from overseas suggests that current multidisciplinary low vision rehabilitation programs have a limited impact on improving quality of life in individuals with low vision. To rectify this, the effectiveness of a new low vision rehabilitation model that incorporates a self-management program using a randomised controlled trial design is being investigated. A structured course that aims to improve the participants’ abilities and confidence to manage vision related problems will be evaluated as a supplement to the current low vision care. A vision specific quality of life questionnaire, the Impact of Vision Impairment, will be the major outcome measure and secondary ones will include general health, self efficacy and assessments of emotional health, the results providing the basis for an innovative model for access to quality care for the increasing number of older people with vision impairment.

2. Falls and vision impairment: determination of the circumstances and predictors of falls in visually impaired people. Although visual impairment has been identified as a critical determinant of falls, there is limited information about the relationship of components of vision function. To better understand this association, a study of 600 patients recruited from the Royal Victorian Eye and Ear Hospital and Vision Australia low vision clinics has commenced to develop prevention and treatment strategies.
PREVENTION OF BLINDNESS UNIT

Research in this Unit concentrates on the development of effective models of vision care delivery.

Economic Evaluation of Rehabilitation Programs for People with Impaired Vision: There are two components to this research, the Vision and Quality of Life Index (VisQoL) that has been demonstrated to be a useful add-on dimension to the existing generic quality of life utility instrument, AQoL11, and the investigation of personal costs for people with vision impairment.

Impact of Vision Impairment (IVI): The IVI was administered to over 300 people at Vision Australia to understand more about the impact of vision impairment on quality of life and the need for vision rehabilitation. Some modifications were made to the method of scoring the IVI, making it a valuable and practical research tool.

Eye Care Delivery Models: The main areas of research in this project relate to the development of tools for the creation and evaluation of eye care delivery models. Two new quality of life instruments are currently being developed, both based on the IVI. A children’s version is in the second stage of development to assist in planning services for children with low vision. A Melanesian version of the IVI is also being trialled in Vanuatu. A low vision network representative of institutions, agencies and professions in Victoria has recently been formed in collaboration with Vision 2020 Australia, one of its aims being to work on the development of innovative models of low vision care to increase access to services by people with low vision.

Aboriginal Eye Health: A health impact study of the construction of swimming pools in two Aboriginal communities in the Northern Territory is being undertaken to measure the reduction in prevalence of eye (trachoma), ear and skin infections. This study is an integral part of the swimming pools in remote communities project funded jointly by the Federal and Territory Governments and the communities concerned. Baseline data have demonstrated the high prevalence of trachoma in both the coastal and central desert communities, with a significantly higher rate in the latter. Follow up data will be obtained following the installation of swimming pools in 2006 to determine their health impact in terms of disease reduction.

Development of a Non-Mydriatic Fundus Camera: In collaboration with Vision Instruments, the first prototype for a non-mydriatic fundus camera optimised for retinal screening in public health, developing countries and remote areas, has been developed. Field-testing of the first prototype will commence in 2006.
Postgraduate Research Training

Postgraduate research training is an important component of the Centre's activities. The following students are currently enrolled.

DEGREES AWARDED IN 2005

**Doctor of Philosophy**

Dr Van Lansingh: “Primary health approach to trachoma control”.

Dr Reuben Phiri: “Diabetic retinopathy screening: use of the Polaroid non-mydriatic camera versus the digital non-mydriatic camera”.

**Master of Medicine**

Dr Amy Cohn: “Autosomal Dominant Optic Atrophy: correlating disease severity and optic disc appearances.”

**Advanced Medical Science**


THESES IN PROGRESS

**Doctor of Philosophy**

Dr Matthew Chamberlain: “Heritability of macular function and age-related macular degeneration: a twin study.”

Dr Christine Chen: “Identification of genes in myopia.”

Dr Lei Chen: “Development and validation of appropriate methods for the prediction of risk of future cardiovascular events in the contemporary Australian population.”

Dr Elaine Chong: “New dietary risk factors in age-related macular degeneration.”

Ms Shiao-Lan Chou: “Economic evaluation of rehabilitation programs for people with impaired vision.”

Ms Beula Christy: “Comprehensive rehabilitation at all levels of eye care service delivery.”

Ms Gillian Cochrane: “The development of a model for support services for children with low vision.”

Mr Peter Dimitrov: “Predicting progression of age-related macular degeneration.”

Mr Mohamed Dirani: “The heritability of refractive errors and ocular biometrics – a twin study.”

Ms Rishita Nutheti: “Structural equation modeling and its application to the quality of life of visually impaired people.”

Dr Cong Sun: “Gene-environmental interaction of retinal microvascular signs and cardiovascular disease.”

Dr Heathcote Wright: “An evaluation of the health impact of swimming pools in remote indigenous communities of the NT.”

**Master of Medicine**

Dr Michelle Baker: “Retinal microvascular signs in acute stroke.”

Dr David Francis: “Construction of a bio-engineered basement membrane combined with ex-vivo amputation of a corneal epithelium for ocular surface transplantation.”

**Master of Public Health**

Dr Tamara Mackean: “A qualitative review of the Victorian Eye Health Program with regard to sustainability.”

**Advanced Medical Science**

Mr Sandeep Gadgil: “The determinants of falls in the visually impaired.”

Ms Gargi Kothari: “Gender, cataract surgery and curriculum.”

Ms Ee Wei Ong: “AV diameter ratio grading in age-related maculopathy and diabetic retinopathy.”

Mr Chit Loong Saw: “The contents of a self-management tool for visual rehabilitation.”

Ms Bronwyn Scarr: “Quality Of Life questionnaire for Melanesian Island (Vanuatu) populations in regard to post cataract surgery.”
Eye Research Australia

Investing in Sight

Strategic Interventions to Prevent Vision Loss in Australia

A report prepared by Access Economics Pty Limited
Investing in Sight: Strategic Interventions to Prevent Vision Loss in Australia

Following on from the release of our landmark report “Clear Insight: the Economic Impact and Cost of Vision Loss in Australia” in August 2004, a companion report was commissioned with Access Economics to outline clear and strategic intervention strategies to prevent vision loss in Australia, and to show that addressing preventable and treatable vision impairment in Australia is not just cost effective, but cost saving over the long term. This second report, entitled “Investing in Sight: Strategic Interventions to Prevent Vision Loss in Australia”, was launched to wide acclaim on 22 June 2005. We were delighted to work with Lynne Pezzullo and her colleagues on this project.

As with our first report, we gratefully acknowledge the unrestricted grant from Alcon Australia that enabled this work to be undertaken, and the support of our other sponsors, the Royal Australian and New Zealand College of Ophthalmologists and the Vision CRC.

As documented in our first report, “Clear Insight”, three quarters of vision impairment is caused by just five conditions: age-related macular degeneration, cataract, diabetic eye disease, glaucoma and undercorrected refractive error. We proposed and tested 14 specific interventions in four groups of activities: Awareness, Detection and Prevention; Models of Treatment and Care; Research and Development; Professional Education and Workforce. The benefit gained from each intervention was also costed. The intervention package identified in “Investing in Sight” to address the burden of eye disease would have cost $188.8 million for 2005 – 2006 and save the community $911 million in the first year, an overall five-fold return on investment.

Some of the specific intervention strategies were:

- promotion of regular vision testing
- improved access to subsidised spectacle programs
- reduction in cataract surgery waiting lists
- promotion of the use of sunglasses / protective eye wear
- promotion of cessation of smoking
- increased support for eye research development and its prioritisation
- provision of sustainable funding for retinal photography
- promotion of low vision rehabilitation services

A third report has been commissioned with Access Economics to look at the dynamic economic modelling of macular degeneration. Funded by Novartis Pharmaceuticals Australia, this report is due for release early in 2006.

ALCON VISITING PROFESSOR PROGRAM

Alcon Australia continued to fund a Visiting Professor Program in 2005, and we are most grateful for their ongoing support. There were two invited speakers this year:

May:
Associate Professor Ian McAllister, Deputy Director (Clinical Services), Lions Eye Institute, Perth

October:
Professor Denis O’Day, Professor of Ophthalmology and Visual Sciences, Vanderbilt University, Nashville, Tennessee

Professor Denis O’Day

Professor John Funder AO at the launch of Investing in Sight
Centre for Eye Research Australia Board,  
Eye Research Australia Foundation Trustees,  
Centre and University Staff

CENTRE FOR EYE RESEARCH AUSTRALIA BOARD OF DIRECTORS
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Ms Rosanne Cunningham (until January 2005)  
Mr Malcolm Daubney (until March 2005)  
Professor John Funder AO  
Mr Graeme Houghton  
Mr John Jeffries  
Hon. Dr Barry Jones AO  
Mr Gerard Menses (from March 2005)  
Mr Philip Molyneux, Treasurer  
Professor Hugh R. Taylor AC, Managing Director  
Mr David Welsh  
Dr Robert West  
Hon. Dr Michael Wooldridge  
Company Secretary: Mr David Doyle

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Professor James Angus (until June 2005)  
Professor John Funder AO  
Professor John Hopper (from June 2005)  
Mr Philip Molyneux  
Professor Terence Nolan  
Professor Hugh R. Taylor AC  
Professor Bob Williamson AO (from June 2005)

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Professor James Angus (until June 2005)  
Professor John Funder AO  
Associate Professor Jill Keefee  
Professor Terence Nolan  
Associate Professor Justin O’Day AM  
Professor Bob Williamson AO (from June 2005)

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Mr Andrew Fairley

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Mr David Doyle, Secretary  
Mrs Belinda Hope  
Mr Charles Macek  
Ms Tina McMeckan  
Mr Philip Molyneux, Treasurer  
Mr Peter Nankivell  
Mr David Rath  
Professor Hugh R. Taylor AC

Staff
Ms Romy Johnston, Acting Executive Director (from November 2005)  
Ms Laurie Staub, Executive Director (until October 2005)  
Ms Kelly Mallia  
Ms Catherine De Micheli (from June – December 2005)  
Mr Jude Sebastian (until February 2005)

Fundraising Committee
Mr Peter Nankivell, Chairman  
Mrs Susie Daniell  
Associate Professor Elizabeth Dax AM  
Mrs Bernadette Funnell (until October 2005)  
Mrs Belinda Hope  
Ms Tina McMeckan
Director Operations, Chief Fire Officer
Tony Murphy AFSM
Mr David Rath
Mr Andrew Skinner (until December 2005)
Ms Laurie Staub (until October 2005)
Professor Hugh R. Taylor AC
Mr Rod Watts

BASIC SCIENCE DIVISION
Professor Hugh R. Taylor AC, Division Director

Ocular Genetics Unit
Dr Paul Baird, Unit Head
Ms Pam Garoufalis, Research Coordinator
Dr Amirul Islam, Biostatistician
Mrs Teresa Liistro, Administrative Assistant (until November 2005)
Ms Kelly Pertile, Research Assistant
Ms Andrea Richardson, Senior Research Assistant / Lab Manager

Postgraduate Students
Dr Christine Chen
Mr Mohamed Dirani

3rd Year Science Students
Mr Timothy Ward
Ms Melissa Leung

3rd Year Orthoptic Student
Ms Taryn Lemke

Undergraduate Summer Student
Ms Debbie Farrell

Volunteer
Ms Edith Lipka

Corneal Research Unit
Dr Graeme Pollock, Manager, Lions Corneal Donation Service
Mr Marios Constantiou, Clinical Trial Coordinator and Orthoptist
Dr Mark Danieli, Senior Lecturer
Dr Prema Finn, Senior Donor Transplant Coordinator, Lions Corneal Donation Service
Mr David Shearer, Donor Transplant Coordinator, Lions Corneal Donation Service
Dr Grant Snibson, Senior Lecturer, Medical Director, Lions Corneal Donation Service

Postgraduate Student
Dr David Francis

Melbourne Excimer Laser Group
Mr Terry Couper, Unit Manager
Ms Kate Craig, Orthoptist
Ms Caroline Gibbs, Orthoptist
Ms Ilona Probyn, Receptionist

CLINICAL EPIDEMIOLOGY DIVISION
Associate Professor Tien Wong, Division Director

Retinal Vascular Unit
Associate Professor Tien Wong, Unit Head & Director of RetVIC
Ms Jane Barnes, Retinal Grader (from July – December 2005)
Mr Stephen Bowditch, Business Development Manager, RetVIC (from July 2005)
Ms Theresa Dolphin, Photographer/Grader

Ms Julie Ewing, Photographer/Grader/ Clinical Trials Assistant (from May 2005)
Dr Alex Harper, Senior Lecturer & Head, RVEEH Medical Retinal Clinic
Dr Amirul Islam, Research Fellow/Statistician (from January 2005)
Ms Rachel McIntosh, Clinical Studies and Grants Manager
Dr Quresh Mohamed, Medical Retinal Fellow
Ms Sophie Rogers, Epidemiologist/Statistician (until November 2005)
Dr Cong Sun, Research Assistant/ Epidemiologist (from January 2005)
Ms Irene Tarn, Photographer/Grader (until August 2005)
Ms Bich Thai, Retinal Grader (from July – December 2005)
Dr Gabriella Tikellis, Research Fellow/Imaging Manager (from March 2005)
Ms Fulya Torun, Executive Assistant

Postgraduate Students
Dr Michelle Baker
Dr Lei Chen
Dr Cong Sun

Research Students
Ms Ekaterina Alibrahim, Medical Student
Ms Kristin De Haseth, Research Student

Education Unit
Associate Professor Deb Colville, Unit Head

CLINICAL RESEARCH DIVISION
Associate Professor Robyn Guymer, Division Director

Macular Research Unit
Associate Professor Robyn H Guymer, Unit Head
Dr Penny Allen, Fellow
Mr Khin Zaw Aung, Research Assistant
Dr Guy Bylsma, Novartis Medical Retinal Fellow (from February to July 2005)
Ms Melinda Cain, Research Nurse
Mr Peter Dimitrov, Research Assistant
Ms Theresa Dolphin, Research Assistant
Dr Alex Harper, Senior Fellow
Ms Amanda Lancaster, Administrative Assistant (until May 2005)
Dr Damien Louis, Fellow
Ms Rebecca Maxwell, Personal Assistant (from July 2005)
Dr Salmaan Qureshi, Fellow
Dr Luba Robman, Senior Researcher
Ms Mary Varsamidis, Research Assistant

Postgraduate Students
Dr Matthew Chamberlain
Dr Elaine Chong
Mr Peter Dimitrov

Elective Student
Dr Dhanu Meleth, University of Alabama

Glaucoma Unit
Dr Julian Rait, Unit Head
Dr Richard Clark, Senior Research Fellow
Ms Danielle Healey, Clinical Trials Coordinator (until November 2005)

Ms Rachel McIntosh, Clinical Trials Coordinator

Clinical Genetic Studies
Associate Professor David Mackey, Unit Head
Dr Alex Hewitt, Honorary Research Assistant
Ms Lisa Kearns, Orthoptist (from February 2005)
Dr Johan Poulsen, Research Fellow (from February 2005)

Paediatric Studies
Dr Wendy Marshman, Unit Head

POPULATION HEALTH DIVISION
Associate Professor Jill Keeffe, Division Director

Eye Health Promotion Unit
Dr Andreas Müller, Unit Head
Ms Lisa Cipollone, Research Assistant (from August 2005)
Ms Camille Collins, Research Assistant (from August 2005)
Mr Erik Draganovic, Research Assistant (from June 2005)

Ms Martina Eaton, Research Assistant (from August 2005)
Ms Fiona McLachland, Research Assistant (from August 2005)
Mrs Leanne Mazzoni, Research Assistant (until November 2005)
Ms Alicia Sergiejeew, Research Assistant (from August 2005)
Mr John Simpson, Program Manager
Ms Betty Tellis, Research Assistant (from March 2005)

Health Services Research Unit
Dr Ecosse Lamoureux, Unit Head
Ms Jennifer Hassell, Research Assistant
Ms Melanie Larizza, Research Assistant
Dr RoseAnne Misajon, Senior Research Assistant (until January 2005)
Dr Gwyneth Rees, Research Fellow (from June 2005)
Dr Elaine Wong, Research Associate

Postgraduate Students
Ms Shiao-Lan Chou

AMS Students
Mr Sandeep Gadgil
Mr Chit Loong Saw

Prevention of Blindness Unit
Associate Professor Jill Keeffe, Unit Head
Dr Alex Harper, Senior Lecturer
Mr Nick Johnson, Data Analyst
Dr Richard Le Mesurier, IAPB/VISION2020 Regional Co-ordinator
Ms Betty Tellis, Research Assistant
Ms Jessica Towers, Personal Assistant
Dr Hien Vu, Biostatistician (until September 2005)

Postgraduate Students
Ms Shiao-Lan Chou
Ms Beula Christy
Ms Gillian Cochrane
Dr Tamara Mackean
Ms Rishita Nutheti
Dr Heathcote Wright

Mr Peter Coates, Finance Officer, Corporate Services Division
In 2005, Associate Professor Alicia Jenkins was awarded the Voiceless Eureka Prize for Research which replaces the use of animals or animal products, in recognition of her discovery of a novel way to use small sections of human artery in research into blood vessel growth.
Attendances at Conferences and Meetings in 2005

INTERNATIONAL

Alcon Research Institute 24th Anniversary Awards Symposium, Fort Worth, February - Professor Hugh Taylor

Working Group on the Elimination of Trachoma, Johns Hopkins University, Baltimore, February - Professor Taylor

IAPB Board of Trustees Meeting, Geneva, February – Professor Taylor

2nd Singapore Eye Research Institute – ARVO, Singapore, February – Associate Professors David Mackey and Tien Wong, Mr Marios Constantinou, Ms Melanie Larizza

Moorfields Bicentenary Meeting, London, March - Professor Taylor

WHO Trachoma Scientific Informal Workshop, Geneva, March - Professor Taylor

9th Meeting of the WHO Alliance for the Global Elimination of Blinding Trachoma, Geneva, March - Professor Taylor

20th Asia Pacific Academy of Ophthalmology Meeting, Kuala Lumpur, March - Professor Taylor, Associate Professor Wong and Dr Richard Le Mesurier (image below)

2nd SingHealth Research Network Forum, Singapore, March – Associate Professor Wong

Vision 2005, London, April - Professor Taylor, Associate Professor Jill Keeffe and Ms Jennifer Hassell

Association for Research in Vision and Ophthalmology Meeting, Fort Lauderdale, May – Professor Taylor, Associate Professors Deb Colville, Robyn Guymer, Keeffe, Mackey, and Wong, Drs Paul Baird, Matt Chamberlain, Ecosse Lamoureux, Andreas Müller, Johan Poulsen, Julian Rait and Hien Vu

Congress of the Brazilian Low Vision Society, Sao Paulo, June - Associate Professor Keeffe

Washington Advisory Group, San Diego, June – Associate Professor Wong

44th Annual Meeting, Eye Bank Association of America, San Diego, June – Dr Graeme Pollock

3rd USM Ophthalmology Symposium. Kota Bharu, Malaysia, July – Associate Professor Wong

2nd Philippine Academy of Ophthalmology – Singapore Eye Research Institute Forum. Manila, Philippines, July – Associate Professor Wong

Sight Savers International Workshop, Nairobi, July – Associate Professor Keeffe

Ophthalmic Epidemiology Workshop, Taipei, Taiwan, August – Associate Professor Wong

IAPB Board of Trustees and Council of Members Meeting, Hanoi, September – Professor Taylor, Associate Professor Keeffe and Dr Le Mesurier (image below)

Mathematical Models of Trachoma Transmission and Control, Imperial College, London, September - Professor Taylor

59th Congress of Clinical Ophthalmology of Japan, October - Professor Taylor

Ocular Manifestations of Systemic Disease Symposium. Singapore National Eye Centre, Singapore, October – Associate Professor Wong

American Academy of Ophthalmology Meeting, Chicago, October - Professor Taylor and Associate Professors Guymer and Wong

1st China Doctoral Forum (Ophthalmology), Beijing, October – Associate Professor Wong

Genentech Squalamine Drug Trial Meeting, Prague, October – Associate Professor Guymer, Ms Melinda Cain and Ms Nicola Hunt
Vision CRC and Anti Myopia Meetings, LV Prasad Institute, Hyderabad, November - Professor Taylor and Dr Baird

Joint Philippines Academy of Ophthalmology / American Academy of Ophthalmology Meeting, Manila, November – Associate Professor Keeffe and Dr Le Mesurier

AUSTRALIA

XXII Cornea and Eye Bank Meeting, Sydney, March – Drs Mark Daniell, Pollock, Grant Snibson and Lawrence Sullivan, Mr David Shearer

Nossal Institute for Global Health Workshop, University of Melbourne, March - Professor Taylor and Dr Müller

General Meeting of the Victoria Branch of the Royal Australian and New Zealand College of Ophthalmologists, Yarra Valley, April – Professor Taylor, Associate Professor Guymer, Drs Christine Chen and Graeme Pollock

Southern Regional Congress 2005, Melbourne, May - Associate Professor Wong

Co-operative Research Centres Association Conference, Melbourne, May - Professor Taylor and Dr Baird

Beyond 2005 Diabetes Meeting, Sydney, June – Associate Professor Wong

Melbourne Ophthalmic Alumni Meeting, Royal Victorian Eye and Ear Hospital, Melbourne, July – Professor Taylor, Associate Professors Colville, Guymer, Keeffe, Wong, Drs Penny Allen, Khin Zaw Aung, Baird, Chen, Richard Clark, Alex Harper, Amiral Islam, Lamoureux, Wendy Marshman, Müller, Rait, Luba Robman, Cong Sun, Gabriella Tikellis, Vu, Heathcote Wright, Messrs Terry Couper, Mohamed Dirani, Ms Ekaterina Alibrahim, Pam Garoufalis, Hassell and Sophie Rodgers

University of Melbourne Faculty Planning Conference, Shepparton, August - Professor Taylor

University Head Spaces Annual Workshop, University of Melbourne, August - Professor Taylor

Alcon Glaucoma Management Trends Meeting, Cairns, August – Dr Rait

Australian Diabetes Society Meeting, Perth, September – Associate Professor Wong

37th Annual Scientific Congress of The Royal Australian and New Zealand College of Ophthalmology Congress, Hobart, November - Professor Taylor, Associate Professors Colville, Guymer, Mackey and Wong, Drs Allen, Chen, Clark, Harper, Marshman, Qureshi, Snibson and Wright, Mr Dirani

Australasian Ophthalmic and Visual Sciences Meeting, Melbourne, November – Professor Taylor, Associate Professors Keeffe, and Wong, Dr Baird, Centre staff and students

Inaugural Nossal Institute for Global Health Forum, University of Melbourne, December – Professor Taylor, Associate Professor Keeffe & Centre staff and students
Invited Lectures and Presentations 2005

PROFESSOR HUGH TAYLOR

Moorfields Bicentenary, London, March
“Blindness, its causes and regional differences from a global perspective”

20th Asia Pacific Academy of Ophthalmology Meeting, Kuala Lumpur, March
“Epidemiology of Cataract in Asia and the Demand for Cataract Surgery”
“Research Opportunities in Community Ophthalmology and Prevention of Blindness”

Vision 2005, London, April
“Epidemiology of Cataract in Asia and the Demand for Cataract Surgery”
“Research Opportunities in Community Ophthalmology and Prevention of Blindness”

American Academy of Ophthalmology Meeting, Chicago, October
“Refractive Error Correction: Epidemiology and Priority”
“What do Patients Know about Glaucoma”

37th Annual Scientific Congress of The Royal Australian and New Zealand College of Ophthalmology Congress, Hobart, November
“How much cataract surgery are we going to do?”

ASSOCIATE PROFESSOR ROBYN GUYMER

Association for Research in Vision and Ophthalmology, Fort Lauderdale, May
“The Impact of Vision Loss”
“Rivers and Pools, the Role of Water in Blindness”

School of Population Health, University of Melbourne, October
“Impact of Vision Loss”

ASSOCIATE PROFESSOR JILL KEEFFE

Vision 2005, London, April
“Personal costs of vision impairment”

ASSOCIATE PROFESSOR DAVID MACKEY:

2nd Singapore Eye Research Institute – Association for Research in Vision and Ophthalmology Meeting, Singapore, February
“Glaucoma genes in perspective: experience from the Glaucoma Inheritance Study in Tasmania”
37th Annual Scientific Congress of The Royal Australian and New Zealand College of Ophthalmology Congress, Hobart, November
Gregg Lecture: “Congenital cataract – from rubella to genetics”

DR ANDREAS MÜLLER
Association for Research in Vision and Ophthalmology, Fort Lauderdale, May
“Validity of a rapid assessment technique to monitor changes in visual impairment and eye care behaviour”

Melbourne Ophthalmic Alumni Meeting, Royal Victorian Eye and Ear Hospital, Melbourne, July
“Evaluating eye health promotion activities in Victoria – results from The Vision Initiative (TVI)”

DR JULIAN RAIT
Melbourne Ophthalmic Alumni Meeting, Royal Victorian Eye and Ear Hospital, Melbourne, July
“GEMS Trial update”
Alcon Glaucoma Management Trends Meeting, Cairns, August
“How relevant is it to switch therapies”

37th Annual Scientific Congress of The Royal Australian and New Zealand College of Ophthalmology Congress, Hobart, November
“Persistency of glaucoma medications in Australia”

ASSOCIATE PROFESSOR TIEN WONG
2nd Singapore Eye Research Institute – Association for Research in Vision and Ophthalmology Meeting, Singapore, February
“Retinal vascular signs and systemic diseases”
“The Singapore Malay Eye Study (SIMES)”

2nd SingHealth Research Network Forum, Singapore, March
“The Singapore Malay Eye Study (SIMES): Racial variation in eye diseases”

20th Asia Pacific Academy of Ophthalmology Meeting, Kuala Lumpur, March
“Hypertensive retinopathy: new insight and clinical implications”
“Current status and limitations of diabetic eye screening”

Association for Research in Vision and Ophthalmology, Fort Lauderdale, May
“Hypertensive retinopathy and cardiovascular eye disease. Beyond the eye - ocular findings as markers of systemic diseases”

Southern Regional Congress 2005, Melbourne, May
“Hypertensive retinopathy: current concepts”

Washington Advisory Group, San Diego, June
“Clinical management of myopia: present and into the future. Eye diseases in divergent populations: U.S. and international considerations”

Beyond 2005 Diabetes Meeting, Sydney, June
“Early retinal microvascular changes in diabetes: Insights into pathogenesis and prediction”

Alcon Visiting Professor Lecture, Lions Eye Institute, University of Western Australia, Perth, June. “Early retinal microvascular changes in diabetes and pre-diabetes”

Ocular Manifestations of Systemic Disease Symposium. Singapore National Eye Centre, Singapore, October: “The eye in hypertension”

1st China Doctoral Forum (Ophthalmology), Beijing, October
“Hypertensive retinopathy: current concepts and clinical significance”

Singapore Eye Research Institute Research, Singapore, October
“Insights from major clinical trials of diabetic retinopathy”

2nd RetVIC Lecture Series, Melbourne, October
“Retinal vascular imaging: building the evidence base for clinical prediction”

Australasian Ophthalmic and Visual Science Meeting, Melbourne, December
Fred Hollows Lecture in Ophthalmic Vision Science “Hypertensive retinopathy: a journey from fundoscopy to digital imaging”

management of diabetic retinopathy”
“Anti-angiogenesis, laser treatment and other experimental modalities in AMD”
“Current Concepts In Hypertensive Retinopathy”

Ophthalmic Epidemiology Workshop, Taipei, Taiwan, August
“Basic concepts and future challenges in epidemiological research in ophthalmology”
“The eye and hypertension: linking ocular and systemic diseases”
“Ophthalmic epidemiology in Singapore – the Tanjong Pagar Study and the Singapore Malay Eye Study”
“Epidemiology of diabetic retinopathy”

Australian Diabetes Society Meeting, Perth, September
“Diabetes: it’s in your eyes”

Department of Preventive Medicine, Northwestern University School of Medicine, Chicago, USA, October:
“Retinal microvascular signs: A new biomarker of cardiovascular risk?”

1st China Doctoral Forum (Ophthalmology), Beijing, October
“Hypertensive retinopathy: current concepts and clinical significance”

Singapore Eye Research Institute Research, Singapore, October
“Insights from major clinical trials of diabetic retinopathy”

2nd RetVIC Lecture Series, Melbourne, October
“Retinal vascular imaging: building the evidence base for clinical prediction”

Australasian Ophthalmic and Visual Science Meeting, Melbourne, December
Fred Hollows Lecture in Ophthalmic Vision Science “Hypertensive retinopathy: a journey from fundoscopy to digital imaging”
Visitors in 2005

VISITORS IN 2005

January
Investing in Sight Workshop, 21 January
- Mr Ian Bluntish, National President, Optometrists Association Australia
- Mr Joe Chakman, Executive Director, Optometrists Association Australia
- Ms Margaret Cox, Office for an Ageing Australia, Department of Health and Ageing
- Ms Sally Fearn, Australian Community Manager, Vision 2020 Australia
- Ms Chris Faulks, Director, Member Organization Services, Diabetes Australia
- Ms Bernadette Funnell, McPhersons Promotions
- Ms Jayne Gallo, General Manager, Community Services, Vision Australia Foundation
- Dr Robert Grogan, Executive Director, Clinical Services, Royal Victorian Eye and Ear Hospital
- Mr Bob Guest, Chief Executive Officer, Royal Australian and New Zealand College of Ophthalmologists
- Ms Julie Heraghty, Chief Executive Officer, Macular Degeneration Foundation
- Mr Tony Hill, Managing Director, Capital Hill Consulting
- Dr Masum Hossain, Medical Director, Pfizer Australia
- Hon. Dr Barry Jones AO, Chairman, Vision 2020 Australia
- Ms Paris Kostakos, Adviser to the Hon. Tony Abbott MP, Minister for Health and Ageing
- Dr Tamara Mackean, Indigenous Health Education, Department of Medical Education, Flinders Medical Centre
- Dr Mark McGree, McCullough Specialist Centre, Sunnybank, Queensland
- Mr Patrick Moore, President, Macular Vision Loss Support Society
- Ms Sarah Nesbitt, Economist, Access Economics
- Ms Lynne Pezzullo, Senior Economist, Access Economics
- Professor Richard Smallwood AO, Director, Vision 2020 Australia
- Dr John Stokes, Business Unit Head, Ophthalmics, Novartis Pharmaceuticals Australia
- Dr Michael Treplin, Vice President, Royal Australian and New Zealand College of Ophthalmologists
- Mr David Yates, National Sales Manager, Bausch & Lomb

Ms Alison Hughes, Public Health Group, Department of Human Services

February
Professor John Coghlan, Menzies Foundation
- Ms Sarah Nesbitt & Ms Lynne Pezzullo, Access Economics, Dr John Stokes, Novartis Pharmaceuticals Australia

March
Reopening of the McComas Family Laboratory, 9 March
- Centre Chairman and Directors
  - Ms Tina McMeckan
  - Mr Graeme Houghton

April
Hon. Dr Barry Jones AO
- Mr Gerard Menses
- Mr Philip Molyneux
- Victorian Lions Foundation:
  - Mr George Barnard
  - Mr Graeme Head
  - Mr Doug Lyons
  - Mr & Mrs Alan Roberts
  - Mr David Welsh
  - Mrs Alison Western
- Dr Robert Grogan, Royal Victorian Eye and Ear Hospital
- Mr Andrew McComas
- Mr John Macdonald, Designing
- Dr Padmaja Sankaridurg and Associate Professor Mark Willcox, Vision CRC

Mr George James, Harold and Cora Brennan Trust

May
Hon. John Brumby, MP, Treasurer, Minister for Innovation, Minister for Regional Development
- Associate Professor Saw Seang Mei, Department of Community, Occupational and Family Medicine, National University of Singapore
- Ms Mary Murnane, Deputy Secretary, Department of Health and Ageing

Ms Athena Foong, Project Manager, Singapore & Malay Eye Study
- Associate Professor Ian McAllister, Lions Eye Institute, Perth
June
Ms Cathy Mead, Executive Officer and Ms Julia Veitch, Project Officer, Victorian Public Health Research & Education Council

July
Professor Graham Brown, Department of Medicine, Melbourne Hospital/ Western Hospital
Ms Rebecca James, Adviser to the Hon. Tony Abbott MP, Minister for Health
Professor John Mathews, former Head of the National Centre for Disease Control, now Honorary Professorial Fellow with the School of Population Health, University of Melbourne
Mr Peter Nankivell and Ms Yan Li Wang, Herbert Geer & Rundle
Hon. Glenyys Romanes MLC, State Member for Melbourne Province

August
Dr Amanda Caples, Director Biotechnology, Department of Innovation, Industry and Regional Development

September
Dr Paul Foster, Institute of Ophthalmology, Moorfields Eye Hospital, London
Dr James Guest & Ms Robyn Reeves, Brockhoff Foundation
Mrs Margaret Ross AM, John T. Reid Charitable Trusts

October
Professor Margaret Hammerschlag, Department of Medicine, SUNY Health Center at Brooklyn, Brooklyn, New York
Mrs Gabi Hollows & Mr Brian Doolan, Fred Hollows Foundation
Professor Denis O’Day, Professor of Ophthalmology and Visual Sciences, Vanderbilt University, Nashville, Tennessee

November
Professor Ian Anderson, Director, Centre for Health & Society, School of Population Health, University of Melbourne
Mr John Hughes, Smart Health
Dr Matt Perugini, Bio 21 Institute, Melbourne
Dr Ellen Strahman, Vice President & World Wide Therapeutic Head, Global Research & Development, Ophthalmology, Pfizer and Dr Masum Hossain & Ms Nicola Leaney, Pfizer Australia
Dr Suman Thapa, Tilganga Eye Centre, Nepal
Professor Ravi Thomas, LV Prasad Eye Institute, Hyderabad, India
Mr Al & Mrs Val Rosenstrauss, Rebecca Cooper Foundation
Professor Junwen Zeng, Drs Mingguang He and Yingfeng Zheng, Zhongshan Ophthalmic Centre, Sun Yat-sen University, Guangzhou, People’s Republic of China
December
Retinal Vascular Imaging: Current Concepts and Future Directions Workshop, 5 December

> Dr Joey Chua, Department of Computer Science & Software Engineering, University of Melbourne
> Professor Mark Cooper, Baker Heart Research Institute, Melbourne
> Dr Michael Cree, Department of Physics & Electronic Engineering, University of Waikato, Hamilton, New Zealand
> Dr Fergus Doubai, Division of Clinical Neurosciences, Western General Hospital, Edinburgh
> Dr Peter Hand, Department of Neurology, University of Melbourne
> Dr Herbert Jelinek, School of Community Health, Charles Sturt University, Albury
> Associate Professor Wynne Hsu, School of Computing, National University of Singapore, Singapore
> Mr Larry Hubbard, Fundus Photograph Reading Centre, Madison, Wisconsin
> Professor Lee Kennedy, Professor of Medicine, James Cook University, Townsville
> Associate Professor Mong Li Lee, School of Computing, National University of Singapore
> Dr Gerald Liew, Department of Geriatric Medicine, Westmead Hospital, New South Wales
> Dr Bernhard Seitz, IMEDOS GmbH, Jena, Germany
> Associate Professor Jonathan Shaw, International Diabetes Institute, Melbourne
> Dr Jie Jin Wang, Centre for Vision Research, Westmead Hospital, New South Wales
> Professor Simon Thorn, NHLI, International Centre for Circulatory Health, St Mary’s Hospital & Imperial College, London
> Dr Walthard Vilser, IMEDOS GmbH, Jena, Germany
> Associate Professor Nick Haslam, Department of Psychology, University of Melbourne
> Dr Darryl Irwin and Ms Paige Stevenson, The Australian Genome Research Facility, Brisbane and Melbourne node managers
> Mr Graeme Lade, Australian Ambassador-designate, Nepal
> Associate Professor Cathy McCarty, Director, Marshfield Clinic Personalized Medicine Research Center, Marshfield Clinic, Marshfield, Wisconsin
> Dr Ian Morgan, Visual Sciences Group, Research School of Biological Sciences, ANU, Canberra
> Dr Kathy Rose, School of Applied Vision Science, Faculty of Health Sciences, The University of Sydney
> Ms Bonnie Parkinson, Access Economics
> Messrs Victor Previn Chairman, Malcolm Plunkett, Manager for Advanced Research, and Peter Falzon CEO, Ellex Medical Lasers Ltd, Adelaide
> Dr Rasik Vajpayee, RP Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi
Research Grants for 2005

**BASIC SCIENCE DIVISION**

**Ocular Genetics Unit**
- Commonwealth Government CRC: $299,940
- Myra Stoicesco Charitable Trust: $74,500
- Helen Macpherson Smith Trust: $50,000
- L.E.W. Carty Charitable Trust: $50,000
- The Angior Family Foundation: $44,000
- The Diana Browne Trust: $30,000
- Victorian Department of Human Services: $25,000
- Rebecca Cooper Medical Research Foundation: $12,000

**Corneal Research Unit**
- The Wenkart Foundation: $5,000

**CLINICAL EPIDEMIOLOGY DIVISION**

- Dept of Innovation, Industry & Regional Development: $681,000
- Victorian Lions Foundation: $178,000
- National Health & Medical Research Council (NHMRC): $129,300
- Pfizer Australia: $100,000
- National Heart Foundation: $60,000
- American National Institutes of Health: $52,618
- Singapore National Eye Centre: $27,402
- Eastern Clinical Research: $20,000
- University of Sydney: $17,000
- International Diabetes Institute: $15,000
- RVEEH Research Committee: $11,075
- University of Wisconsin: $6,510

**CLINICAL RESEARCH DIVISION**

**Macular Research Unit**
- NHMRC: $266,639
- Alcon Australia: $130,000
- Novotech (Australia): $116,087
- Vision Australia: $90,909
- Eyetech: $68,290
- Pfizer Australia: $53,909
- Novartis Pharmaceuticals: $50,000
- American Health Assistance Foundation: $49,040
- Ophthalmic Research Institute of Australia (ORIA): $40,000
- Macular Vision Loss Support Society: $16,400
- RVEEH Research Committee: $8,914
- Lowy Medical Research Institute: $4,178

**Glaucoma Research Unit**
- Allergan Australia: $83,543
- Pfizer Australia: $500

**Clinical Genetic Studies**
- NHMRC: $205,400
- ORIA: $41,000
- American Health Assistance Foundation: $39,394

**POPULATION HEALTH DIVISION**

- Commonwealth Government CRC: $315,060
- Wagstaff Fellowship: $206,818
- Lions Clubs International Foundation: $185,741
- Christian Blind Mission: $140,000
- Dorothy Edols Trust: $131,156
- Vision Australia: $117,000
- Victorian Lions Foundation: $100,000
- Brockhoff Foundation: $85,000
- Australian Research Council: $71,465
- International Agency for Prevention of Blindness: $67,073
- Victorian Department of Human Services: $67,000
- NHMRC: $66,000
- Melbourne University Early Career Researcher Scheme: $35,002
- Percy Baxter Charitable Trust: $25,500
- RVEEH Research Committee: $13,186
- The CASS Foundation: $2,450
- Ian Potter Foundation: $2,400
- William Angliss Charitable Fund: $2,000

**OTHER RESEARCH**

- Dept of Innovation, Industry & Regional Development: $272,042
- ORIA: $262,289
- Ansell Ophthalmology Foundation: $170,000
- Commonwealth Government CRC: $131,500
- Novartis Pharmaceuticals: $64,978
- Alcon Australia: $56,000
- Victorian Lions Foundation: $50,000
- Bausch & Lomb (Australia): $50,000
- Royal Australian and New Zealand College of Ophthalmologists: $20,000
- F J Waeman Estate: $6,200
Publications in 2005

REFEREED PUBLICATIONS IN SCIENTIFIC JOURNALS, LETTERS, REVIEWS, EDITORIALS, CHAPTERS AND REPORTS


CERA ANNUAL REPORT 2005


Melbourne Fire Brigade running in the City Square, helping raise money for the Foundation
Eye Research Australia Foundation Report

The Eye Research Australia Foundation was established in 1996 to support the work of the Centre for Eye Research Australia in researching the causes, prevention, treatment and rehabilitation of eye disease and vision impairment.

In 2005, the Foundation undertook all marketing, public relations and fundraising activities for the Centre.

FUNDRAISING

During 2005, the Foundation conducted two direct mail appeals and co-ordinated a Melbourne Marathon fundraising campaign. Thanks to the generosity of our donors, the Foundation was able to support the research departments of the Centre and significantly further the work of the scientists.

Funds raised through the end-of-tax-year mail campaign contributed to the development of a portable camera which takes images of the retina at the back of the eye and can detect diabetic eye disease, glaucoma and age-related macular degeneration. Engineer Greg Koennecke specifically designed it for use in communities that are not easily accessible, for example, in remote areas of Australia or in developing countries.

The camera was one of five finalists on the ABC’s New Inventors program, out of 123 inventions considered.

MARATHON

The Foundation co-ordinated the Centre’s participation in the Asics Melbourne Marathon 2005, which was held in October. We fielded a team of 42 runners and had a marquee at the finishing line to welcome all runners after a gruelling effort.

The support of the Melbourne Fire Brigade (MFB) Running Club continued in 2005 with President Phil Cuthbert organising a tin shake in the City Square in September. This raised close to $2,000 in support of the MFB Marathon Team.

We wish to acknowledge significant donations from Associate Professor Liz Dax AM and Mr Tony Murphy which enabled all runners to be refreshed and fed at the end of the race.

GRANTS

Foundation grants to the Centre for Eye Research Australia in 2005 included support for the following:

$90,000

The purchase of the portable retinal camera for the Population Health Division, Prevention of Blindness Unit, headed by Associate Professor Jill Keeffe.

$40,000

Development of the Retinal Vascular Imaging Centre, under the direction of Associate Professor Tien Wong, to provide Australia with world-leading capability in the diagnostic analysis of retinal images for early detection of heart disease, stroke, diabetes, hypertension, dementia, kidney disease and other vascular conditions.

$23,000

Support for the research of Associate Professor Robyn Guymer into Age-related Macular Degeneration.

$22,000

Ocular Genetics “The Genes in Myopia” study headed by Dr Paul Baird.
$20,000
Grant to Dr Paul Baird of the Ocular Genetics Unit for his work on the genotyping of families with Age-Related Macular Degeneration in order to identify a disease gene.

$2,500
For the clinical trials of Associate Professor David Mackey, who is investigating the genetic links associated with Glaucoma.

CROCK FELLOWSHIP

In 2003, the Centre for Eye Research Australia established the Gerard W. Crock Fellowship. Based at the Royal Victorian Eye and Ear Hospital, this Fellowship will provide talented young ophthalmologists with the opportunity to continue their research and academic work in Australia and share their new knowledge.

Professor Gerard Crock AO

In 1905, the first successful corneal donation and transplant took place in what is now the Czech Republic. The

MARKETING AND PR

In addition to fundraising, the Eye Research Australia Foundation manages all events, marketing and public relations for the Centre with the objective of raising awareness within government and the Australian community of the cost of eye disease to the community.

During 2005 the Foundation hosted events to celebrate the re-opening of the McComas Ocular Genetics Unit, the launch of the Access Economics Report “Investing in Sight: Strategic Interventions to Prevent Vision Loss In Australia”, eye testing at Parliament House and the 100th anniversary of the first corneal transplant.

MC COMMAS FAMILY LABORATORY

In 1994, descendants of the McComas family and other generous Ansell Foundation supporters provided the funding for the establishment of the McComas Family Laboratory that now houses the Ocular Genetics Unit. Since then, the Unit has grown progressively, requiring additional laboratory and other space. In March 2005 the extension to the McComas Ocular Genetics Unit was opened. The extension, supported by the Victorian Lions Foundation, was officially opened by PDG David Welsh, Chairman, Lions Corneal Donation Service. New facilities accommodate our scientists whose work increases our understanding of myopia.

INVESTING IN SIGHT

In June the Centre for Eye Research Australia launched the “Investing in Sight: Strategic Interventions to Prevent Vision Loss In Australia” report. Commissioned through Access Economics, this report discusses strategic interventions to prevent vision loss in Australia. Approximately 100 collaborators and stakeholders attended this event to hear about the direct health cost savings that could be realised through various eye care intervention programmes. The second of its kind, “Investing in Sight” follows the Centre’s “Clear Insight” report which outlines the economic impact and cost of vision loss in Australia and was released in August 2004.

EYE TESTING AT PARLIAMENT HOUSE

To promote awareness of the importance of vision testing the Centre for Eye Research Australia visited Victoria’s Parliament House in August to perform eye tests on parliamentarians. Hosted by the Hon. Gleryys Romanes MLC, The Vision Initiative team of the Centre for Eye Research Australia conducted tests on 71 parliamentarians. The team identified five parliamentarians who required further testing with eye specialists.

100TH ANNIVERSARY OF CORNEAL TRANSPANTATION

The first successful corneal donation and transplant took place in 1905 in what is now the Czech Republic. The
corneal transplant was the first ever successful human-to-human transplant of any kind. The 100th anniversary was marked with a celebration at the Centre for Eye Research Australia. Previous patients (who have had their sight restored), ophthalmologists and donor families were present. One of the patients attending the celebrations, Fiona Hutchinson, was the recipient of a cornea whose donor would have turned 100 in 2005!

TOURS
The Eye Research Australia Foundation conducts tours of the Centre for supporters to meet the scientists and learn more about the work undertaken at the Centre. Many of our supporters have a personal or family history of vision impairment and are eager to learn about the latest developments and what can done to help them and their loved ones in future years.

Visitors who attended tours in September and in November heard presentations from Professor Hugh Taylor AC, the Centre’s Managing Director, Associate Professor Robyn Guymer who discussed AMD, Dr Graeme Pollock who discussed corneal transplants and the work of this unit, Associate Professor Jill Keefe who discussed Population Health matters and Associate Professor Tien Wong introducing the RetVIC project.

We warmly welcome our supporters to visit us to learn more about the work of the Centre.

BEQUESTS
During 2005 the Foundation was among beneficiaries of three realised bequests valued at more than $480,000. Many of our benefactors have a personal or family history of vision impairment and are passionately committed to support the elimination of vision loss and blindness for generations to come.

ACKNOWLEDGEMENTS
The Foundation seeks to minimise operational costs so that maximum monies raised can go straight to the Centre’s research. To assist us in this aim we worked closely with, and extend special thanks to, the Fundraising Committee, chaired by Mr Peter Nankivell. Special thanks to Andrew Skinner who has generously dedicated five years to the Foundation whilst building his own advertising agency and to Associate Professor Liz Dax AM for her continued support especially her efforts surrounding the Melbourne Marathon.

If you would like to know more about the work of the Centre or the Foundation, making a bequest or contribution, or to be placed on our newsletter mailing list, please contact Kelly Mallia at the Foundation on +61 3 9929 8705 or via email at kmallia@unimelb.edu.au.
# Abridged Financial Statements

for the year ended 31 December 2005

Centre for Eye Research Australia Ltd

## INCOME AND EXPENDITURE

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Government</td>
<td>1,155,881</td>
<td>801,250</td>
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<td>State Government</td>
<td>978,201</td>
<td>442,929</td>
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<tr>
<td>Charitable Contributions</td>
<td>3,118,428</td>
<td>2,020,366</td>
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<tr>
<td><strong>Total Revenue</strong></td>
<td>5,252,510</td>
<td>3,264,545</td>
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<tr>
<td><strong>Less Expenditure</strong></td>
<td>4,228,798</td>
<td>3,527,833</td>
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<tr>
<td><strong>Surplus (Deficit) for the year</strong></td>
<td>1,023,712</td>
<td>(263,288)</td>
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## BALANCE SHEET

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Assets</strong></td>
<td>1,674,351</td>
<td>1,085,092</td>
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<tr>
<td><strong>Non-Current Assets</strong></td>
<td>1,304,390</td>
<td>389,492</td>
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<tr>
<td><strong>Total Assets</strong></td>
<td>2,978,741</td>
<td>1,474,584</td>
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<tr>
<td><strong>Current Liabilities</strong></td>
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<tr>
<td>Payables</td>
<td>514,675</td>
<td>288,921</td>
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<tr>
<td>Provisions</td>
<td>382,173</td>
<td>280,593</td>
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<tr>
<td>Other</td>
<td>585,808</td>
<td>432,694</td>
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<tr>
<td><strong>Total Current Liabilities</strong></td>
<td>1,482,656</td>
<td>1,002,208</td>
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<tr>
<td><strong>Non-Current Liabilities</strong></td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>Total Liabilities</strong></td>
<td>1,482,656</td>
<td>1,002,208</td>
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<tr>
<td><strong>Net Assets</strong></td>
<td>1,496,085</td>
<td>472,376</td>
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<tr>
<td><strong>Total Equity</strong></td>
<td>1,496,085</td>
<td>472,376</td>
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</table>

*The Centre for Eye Research Australia Limited is operated as a not for profit organization. Accordingly, accumulated surpluses are held in the form of working capital and fixed assets to support committed and planned research projects.*
# Abridged Financial Statements

for the year ended 31 December 2005

Eye Research Australia Foundation

## INCOME AND EXPENDITURE

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2004</th>
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<tbody>
<tr>
<td>Revenues from ordinary activities</td>
<td>959,386</td>
<td>570,284</td>
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<tr>
<td>Less Expenditure</td>
<td>241,302</td>
<td>391,039</td>
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<tr>
<td>Profit from ordinary activities</td>
<td>718,084</td>
<td>179,245</td>
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<tr>
<td>Less Distribution to CERA</td>
<td>154,500</td>
<td>80,000</td>
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<tr>
<td>Net Surplus (Deficit for the year)</td>
<td>563,584</td>
<td>99,245</td>
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## BALANCE SHEET

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Assets</td>
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<td>406,470</td>
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<td>Non-Current Assets</td>
<td>0</td>
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<tr>
<td>Total Assets</td>
<td>913,391</td>
<td>406,470</td>
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<tr>
<td>Total Liabilities</td>
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<td>68,441</td>
</tr>
<tr>
<td>Net Assets</td>
<td>901,614</td>
<td>338,029</td>
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<tr>
<td>Total Equity</td>
<td>901,614</td>
<td>338,029</td>
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Acknowledgements

> Mr Lindsay Davies, Ego Printing
> Messrs Bill Fazio & Peter Nankivell, Herbert Geer & Rundle
> Mrs Bernadette Funnell & Mr James McPherson, McPherson Promotions
> Mr Tony Hill, Capital Hill Consulting
> Mr Peter Jovic & Ms Sarah Wills, KPMG
> Mr Bill Karanatsios, VMIA
> Ms Jenni Lightowlers, Partner, Francis Abourizk Lightowlers
> Messrs John Macdonald & Gordon Steele, Designinc
> Ms Sarah Nesbitt & Ms Lynne Pezzullo, Access Economics Pty Ltd
> Mr Tony Pyman, Allens Arthur Robinson
> Mr Andrew Skinner, Skinner Advertising Services
How You Can Support the Centre for Eye Research Australia

The Centre for Eye Research Australia is financially supported through income received from the University of Melbourne, grants – both government and non-government – as well as donations from members of the public.

HOW WE USE YOUR DONATION
Donations received are used to support the work of the Centre for Eye Research Australia.

TAX DEDUCTIBILITY
All donations over $2 are tax-deductible as the Eye Research Australia Foundation, through which all public donations are processed, has endorsement as a deductible gift recipient (DGR).

VARIOUS METHODS OF SUPPORTING THE CENTRE
There are various ways in which you can support the work of the Centre:

Cash Donation
We appreciate all donations – both large and small – and are happy to direct your donation to a specific area of our work if you so request. All donations are acknowledged with a thank you letter and receipt.

All cheques should be made payable to ‘Eye Research Australia Foundation’.

Credit Card donations can be made over the phone on freecall 1300 737 757.

Donations can also be made on-line through Our Community. Please go to www.eraf.org.au and click on the “Donate to Eye Research Australia” Our Community link.

Bequest
The Eye Research Australia Foundation has established a Bequest program with the aim to build a permanent capital fund for the Centre for Eye Research Australia. The interest from this fund will help to finance vital research into the causes, prevention and treatment and rehabilitation of eye disease.

If you decide to support the Eye Research Australia Foundation by making a bequest, it would be very encouraging to receive advice of your intention. This advice will be treated in strict confidence. Please note that such notification does not imply a legal commitment of any kind; you will be under no obligation to proceed and will be free to change your will at any time in the future.

Wording for a Bequest
The following form of words may be adapted by your legal adviser depending on the type of bequest you wish to make:

"I give to the Eye Research Australia Foundation free of all duties (insert here the type of bequest you wish to leave, eg xx% of my estate) and I declare that the receipt of its Treasurer or other proper officer shall be full and sufficient discharge to my Executors."

Should you have any enquiries, please do not hesitate to contact the Foundation staff on the details below:

Telephone
Freecall 1300 737 757

Mailing address for donations
Eye Research Australia
Locked Bag 373
East Melbourne VIC 8002