MISSION:
The key to our mission is research, for only through meaningful research will the causes of sight-threatening disorders be elucidated and new treatment strategies developed.
FOCUSING BEYOND

SERI has forged a network of research teams and facilities with its affiliates, encompassing clinicians and researchers from all institutions involved in vision research in Singapore to constantly develop new research initiatives.
CHAIRMAN’S MESSAGE

Once in a lifetime an ophthalmic development emerges in Asia ready to compete with and challenge the world’s leading eye centres in research. This exciting development is none other than the Singapore Eye Research Institute. The world-class research that SERI conducts will help spread the international influence of Singapore as we move towards our goal of being a global city and a leading nation influencing developments in Asia and the world.

It is wonderful that ophthalmic research in Singapore has reached such a high level in just ten years. We must acknowledge the remarkable contributions of two Singapore pioneers - the late Professor Chew Sek Jin and currently, Professor Donald Tan.

Having achieved world-class standards in ocular research, there is a tendency to rest on our laurels and be contented with what we have achieved. But if ophthalmic research in Singapore is to continue to produce outstanding results and be featured in leading international publications we cannot afford cosy indifference. We must seize every opportunity. This is the fascinating and challenging task for Donald Tan and his team in 2006 and beyond.

I am confident he will succeed.

PROFESSOR ARTHUR LIM
Chairman
INSTITUTE DIRECTOR’S REPORT

The major objective this year is to maintain the level of activity and scientific output within our four established research divisions, namely, the Clinical Research Unit, the Epidemiological Unit, the Visual Psychophysics Unit and the Laboratory Sciences Unit. Within these units, we continued to develop our major initiatives in ocular proteomics, genomics, ocular stem cell biology, ocular drug delivery, development of animal models of ocular diseases, visual performance studies and clinical trials in ophthalmic pharmaceuticals, lasers and surgery. Research priorities remain those most relevant to Asian eye disease such as myopia, angle closure glaucoma, ocular surface diseases and diabetes.

Overview of the items and activities during the year:

**Myopia research**
A second large-scale clinical trial on the use of atropine eyedrops in school age children to retard myopia progression, and to determine the bioavailability of atropine to optimize atropine usage was initiated. Additionally, laboratory work continued on the role of cellular pharmacological receptor and pathways for atropine on the scleral fibroblasts, including use of our current pig and mouse models of myopia. Our randomised clinical trials on NeuroVision treatment in low and mid-myopic individuals in the SAF are currently mid-way. Plans are currently underway to develop a randomised controlled trial on the use of NeuroVision treatment in schoolchildren with progressive myopia. Our epidemiology studies on school myopia continued to progress unabated, and we published a total of 6 papers relating to myopia research this year.

**Ocular surface diseases**
Having proven our concept of cultivating cultured conjunctival equivalents for conjunctival and ocular surface reconstruction, our efforts this year focused on evaluating the ability of our conjunctival constructs in replacing corneal epithelium in limbal stem cell deficiency, and re-evaluate concepts of conjunctival epithelial transdifferentiation in these eyes. We successfully performed cultured conjunctival transplants as corneal surface replacements in 4 eyes of 3 patients this year. Proteomic tear and ocular surface work will continue to evaluate new ocular defensins and biomarkers for dry eye disease, and early results of our work on antimicrobial peptides are promising and need to be followed up. Four publications in this field of research were published this year. In addition, one of our key stem cell clinician scientists, Dr Leonard Ang, was awarded the 2005 Singapore National Academy of Sciences (SNAS) Young Scientist Award for his contribution to the program.

**Glaucoma**
Clinical trials on acute angle closure glaucoma, including evaluation of new technology for population screening, and our new RCT on the use of prophylactic laser iridotomy in preventing acute angle closure glaucoma in high risk patients were performed this year. Genetic studies relevant to glaucoma including linkage studies and the identification of candidate genes continued to be major programs underway. A total of 8 publications relating to glaucoma research were published this year.
Diabetes, retinal vascular disorders and a new retinal stem cell program
Our main focus remained the epidemiological study of retinal vascular disease such as diabetic and hypertensive retinopathy as a predictor for cardiac or cerebrovascular disease, using retinal imaging as a screening modality. In addition, work relating to ocular angiogenesis progressed well with regards to our pig model of retinal capillary closure and our rat model of retinal hypoxia. In addition, we have initiated a new retinal stem cell research program this year, headed by Dr Henry Klassen. Over 64 scientific articles in this field were published this year, and A/Prof Wong was awarded both the Woodward Medal for Science and Technology at the University of Melbourne, and the Fred Hollows Lecture in Ophthalmic and Visual Science at the Australian Ophthalmic and Visual Sciences Meeting in Australia, this year, for his work in retinal vascular disease epidemiology.

Psychophysics and Visual Neuroscience
Studies on multifocal ERG in myopia were completed this year, with 3 publications on retinal electrophysiological function in high myopia, myopia associated with retinitis pigmentosa, and in myopia study subjects treated with atropine eyedrops to retard myopia progression. Studies currently ongoing in electrophysiology include projects on optic neuritis, diabetic macula edema and post-retinal detachment surgery.

Several perceptual learning studies evaluating NeuroVision treatment in low and mid-myopia and post-refractive surgery are currently in progress, including 2 RCTs with the SAF on visual improvement and contrast sensitivity enhancement in military subjects.

Research Outcome
In 2005, SERI scientists and clinicians published 129 scientific articles in peer reviewed ophthalmology and visual science journals (Pages 32-38), presented 89 scientific abstracts (Pages 39-44) at local and international clinical and research meetings and initiated 39 new research projects (Pages 21-24).

SERI scientists and affiliated clinicians were awarded a total of $3,433,762 in individual research grants and commercially funded grants. This represented additional extramural research funding equivalent to 93% of SERI’s IBG of $3,675,000.

During the year, SERI scientists and clinicians were presented with a total of 6 awards for research excellence [Page 31].

Major New Research Initiatives in 2005/06 with clinical impact
A Randomised, Double-Masked, Study to Compare the Safety and Efficacy of Bilateral 0.5%, 0.1% & 0.01% Atropine Treatment in Controlling Progression of Myopia in Children

Myopia is associated with an increased lifelong risk of blinding conditions such as myopic macular degeneration, retinal detachment and glaucoma. The high prevalence and increasing severity of myopia in East Asian countries such as Singapore, makes it a major public health concern. We recently demonstrated that progression of myopia in children can be reduced significantly through topical application of 1% atropine. However, this treatment has drawbacks attributable to unwanted side-effects of pupillary dilatation and cycloplegia.
The study aims to establish an optimal dose of topical atropine for preventing the rapid progression of myopia in children and to evaluate a treatment regimen developed for the routine management of childhood myopia by general ophthalmologists.

Preschool Refractive Error, Amblyopia, and Strabismus in Singapore Study

Myopia is a common early childhood ocular disorder affecting more than half of school-going children in Singapore. Other visual abnormalities, particularly squints, may also affect eye development, leading to visual loss. To address this, the Singapore Eye Research Institute, Singapore National Eye Centre, Alexandra Hospital and the National University of Singapore submitted an application to the National Medical Research Council to perform a population-based prevalence survey on refractive error, amblyopia and strabismus in Singaporean Chinese Preschoolers. The application received funding from the National Medical Research Council in

The proposed study will identify the prevalence (burden) of ocular disorders, namely refractive error, strabismus and amblyopia, in a representative population-based sample of young children. The familial, biologic, ethnic, and lifestyle risk factors, especially the early effects of near work activity on the development of early-onset myopia, will be closely evaluated.

An Investigation into the Genetic Basis of Partial Phenotype, Characteristic of Autosomal Dominant Retinitis Pigmentosa Locus on Chromosome 19q13.4 (RP11)

The study aims to identify and test possible mechanisms responsible for the differential expression of PRPF31 alleles. Genetic mechanisms that govern disease severity of RP are important to understand due to their direct impact on disease progression and therefore on prognosis and clinical management of disease. Once the actual genetic cause of differential expression PRPF31 alleles is identified, a PCR-based diagnostic tool/protocol can be designed and used in offspring of carrier individuals to test for the presence of either a high or low expressing wild type allele. This will enable a more accurate prognosis of disease progression in pre-symptomatic children and allow any therapy to be targeted to those patients where retinal disease would be expected. This is highly significant as successful gene therapy in RP patients may depend upon early diagnosis and intervention in the earliest stages of disease.

Quantitative Proteomics of Tear Biomarkers for Dry Eye

Dry eye is a problem that affects millions of people around the world as it is a disease of the aging eye and post-menopausal women. From published studies the prevalence rates in Asia appear to be higher than in the US and Europe. The visual difficulties associated with dry eye extend from constant irritation, blinking, blurry vision to more serious events such as increased infections of the ocular surface.

A diagnostic and therapeutic problem with dry eye has been the lack of objective biomarkers of the disease. In this study, combining a clinical scientific knowledge of the disease with unique and proven methodology in mass spectrometry for tear analysis, we will find new biomarkers of the disease and quantify these for future more detailed clinical epidemiological studies of dry eye. The results of the proposed study will provide new diagnostic and therapeutic indicators for dry eye and be useful to speed the development of new pharmacological treatments.
A Search for Quantitative Trait Loci in Angle Closure Glaucoma

This study aims to determine if angle closure glaucoma is caused by genes that control eyeball size.

A better understanding of eye development may in turn lead to more accurate diagnosis and prognosis of ocular development, and inevitably to the emergence of novel classifications based on knowledge of the molecular pathology. Such knowledge may lead to more rational disease classification, better diagnostic tests, and improved prognostic accuracy. This is of particular relevance to glaucoma since there is a shortage of early reliable diagnostic tests and much evidence that the early commencement of treatment can arrest progressive symptomless loss of vision for which the disease is renowned. The identification of an expanding array of developmental genes paves the way for investigations into gene-gene and gene-environment interactions. Study of the modifying nature of these interactions offers the possibility to discover ways of influencing the phenotypic effect of a genetic mutation in clinical practice. Thus it can be predicted that the identification of the PACG gene, responsible for both glaucoma and probably anterior segment malformations, will be of major importance to both medicine and biology[51].

Table 1: SERI Scientific Publications 1991-2005/06

<table>
<thead>
<tr>
<th>Year</th>
<th>Clinical Research</th>
<th>Epidemiological Research</th>
<th>Basic Research</th>
<th>Others</th>
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<td>9</td>
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<td>47</td>
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<td>13</td>
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<td>56</td>
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<td>2002/03*</td>
<td>39</td>
<td>38</td>
<td>20</td>
<td>0</td>
<td>97</td>
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<tr>
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<td>54</td>
<td>31</td>
<td>18</td>
<td>0</td>
<td>103</td>
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<tr>
<td>2004/05*</td>
<td>82</td>
<td>29</td>
<td>8</td>
<td>1</td>
<td>120</td>
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<tr>
<td>2005/06*</td>
<td>79</td>
<td>35</td>
<td>12</td>
<td>3</td>
<td>129</td>
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<tr>
<td>TOTAL</td>
<td>515</td>
<td>177</td>
<td>93</td>
<td>4</td>
<td>789</td>
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</table>

* inclusive of publications from National Healthcare Group Institutions
Institute Director's Report (cont’d)

Figure 1: SERI Scientific Publications (1991-2005/06)

Figure 2: Total Impact Factor

Figure 3: Mean Impact Factor per Publication
New Research Grants and Research Projects

This year, a total of 40 new research projects were submitted and approved by the SERI Institutional Review Board. During the same period, a total of 18 research projects were completed.

SERI scientists and affiliate clinicians continued to be highly successful in competitive research grants during this period - from April 2004 to March 2005, a total of $3,391,288 in individual and program research grants were attained (Table 2). This represented additional extramural research funding equivalent to 98% of SERI’s Institutional Block Grant of $3,449,730.

Table 2: Competitive Research Grant Funding in 2005/2006

<table>
<thead>
<tr>
<th>Funding Body</th>
<th>No. of Grants</th>
<th>Total Grant Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Medical Research Council (NMRC)</td>
<td>5</td>
<td>$1,356,473</td>
</tr>
<tr>
<td>Biomedical Research Council (BMRC)</td>
<td>2</td>
<td>$1,075,612</td>
</tr>
<tr>
<td>Singapore Health Services (SingHealth)</td>
<td>3</td>
<td>$355,240</td>
</tr>
<tr>
<td>Industry Sponsored Trials</td>
<td>4</td>
<td>$541,312</td>
</tr>
<tr>
<td>SNEC Discretionary Research Fund</td>
<td>5</td>
<td>$52,272</td>
</tr>
<tr>
<td>SNEC Health Endowment Fund</td>
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<td>$10,379</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>27</strong></td>
<td><strong>$3,391,288</strong></td>
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</table>

IN APPRECIATION

Once again, it leaves me to thank our Board of Directors and all the staff at SERI, the various committees, our clinical partners, industry sponsors, study patients and their families for the support, contributions, commitment and encouragement. I would also like to thank the National Medical Research Council for the continued funding support.

DONALD TAN
Director
SYNERGY IN VISION

SERI provides an infrastructure to complement and facilitate basic and clinical research undertaken at the Singapore National Eye Centre and other institutions involved in the study of visual disorders.
BOARD MEMBERS

The SERI Board comprises representatives from the Singapore Health Services, National Healthcare Group as well as institutions involved in vision research such as the Defence Medical Research Institute and the National University of Singapore.

Prof Lim Siew Ming, Arthur
Chairman

Cl Prof Ang Chong Lye
Medical Director,
Singapore National Eye Centre

BG, Assoc Prof Lee Kim Hock, Lionel
Director,
Defence Medical and Environmental Research Institute

Prof Lim Mong King
Deputy President,
Nanyang Technological University

Prof Lim Yean Leng
Chairman,
National Medical Research Council

Prof Tan Chorh Chuan
Director of Medical Services,
Ministry of Health

Prof Donald Tan Tiang Hwee
Director,
Singapore Eye Research Institute
Deputy Director,
Singapore National Eye Centre
Head, Dept of Ophthalmology,
National University of Singapore

Prof John Wong Eu Li
Dean, Faculty of Medicine
National University of Singapore

Wong Yew Meng
Partner,
PriceWaterHouseCoopers

Sia Kheng Hong
Company Secretary
Singapore Health Services

as at 30 August 2006

Standing (L-R):
Mr Sia Kheng Hong (Company Secretary, SHS),
Cl Prof Ang Chong Lye (Director, SNEC),
Mr Wong Yew Meng (Partner,
PriceWaterHouseCoopers)
Prof Donald Tan (Director, SERI)
Prof Roger Beuerman (Scientific Director, SERI),
Prof Lim Mong Kin (Deputy President, NTU),
Ms Karen Chee (Senior Manager, SERI)

Seated (L-R):
Prof Wallace S Foulds (Senior Consultant, SERI),
Assoc Prof Lionel Lee (Director, DMEI),
Prof Arthur Lim (Chairman, SERI),
Prof Tan Chorh Chuan (Director of Medical Services, MOH)
MANAGEMENT COMMITTEE

The committee is chaired by the Director of the Institute and members include the Heads of Research Groups and representatives from the National Healthcare Group as well as Defence Medical Research Institute. The SERI Management Committee is the major administrative body of the Institute and is responsible for the approval of project fundings, research direction and management.

CHAIRMAN
Prof Donald Tan,
Director,
SERI

MEMBERS
Cl Prof Ang Chong Lye,
Director,
SNEC

Assoc Prof Aung Tin,
Associate Director,
Education & Training,
SERI

Prof Roger W Beuerman,
Scientific Director,
SERI

Mrs Karen Chee-Hansen,
Assistant Director,
International & Corporate Affairs,
SERI

Prof Wallace S Foulds,
Senior Consultant,
SERI

Dr Khoo Chong Yew,
IRB Chairman,
SERI

Ms Charity Wai,
Chief Operating Officer,
SNEC

Assoc Prof Wong Tien Yin,
Associate Director,
International Activities,
SERI
INSTITUTIONAL REVIEW BOARD

The Institutional Review Board is an important component of SERI. The IRB reviews, approves and monitors all research projects conducted at SERI and SNEC. The IRB safeguards the rights, safety and well-being of all research subjects in accordance with the guidelines set out in the Singapore Good Clinical Practice Guidelines adapted from the Declaration of Helsinki. The IRB is chaired by a visiting consultant to the SNEC and members include a lawyer, independent consultants who are specialists in ethical and legal aspects and a senior nursing representative.

**CHAIRMAN**
Dr Khoo Chong Yew, 
Visiting Consultant, 
SNEC

**MEMBERS**
Dr Ang Beng Chong, 
Clergy, 
Hebron Bible Presbyterian Church

Cl Prof Ang Chong Lye, 
Medical Director, 
SNEC

Prof Roger Beuerman, 
Scientific Director, 
SNEC

Dr Chan Tat Keong, 
Consultant, 
Cataract & Comprehensive, SNEC

Prof Wallace S Foulds, 
Senior Consultant, 
SERI

Matron Ho Shin Hiong, 
Director of Nursing, 
SNEC

Dr Lim Kuang Hui, 
Ophthalmologist, 
Eye Clinic Mount Elizabeth

Dr Dominic Leung, 
Dental Surgeon, 
TP Dental Surgeons

Dr Piyah Phong, 
Ophthalmologist, 
Eye Associates Clinic & Surgery

Mr Suresh Sachi, 
Legal Director, 
A*STAR

Prof Donald Tan, 
Director, 
SERI, 
Deputy Director, 
SNEC, 
Head, 
Dept of Ophthalmology, 
Yong Loon Lin School of Medicine, 
NUS

**SECRETARY**
Ms Sharmila Kannan, 
Assistant IRB Manager, 
SERI
SCIENTIFIC COMMITTEE

The Scientific Committee is a sub-committee of the Executive Committee. Membership includes the Director of SERI, Scientific Director and representatives from participating institutions. A major remit of the committee is to review all research protocols and consider the scientific merit, assess the methodology of the study and its relevance to Singapore.

CHAIRMAN
Prof Donald Tan,
Director,
SERI,
Deputy Director,
SNEC,
Head,
Dept of Ophthalmology,
Yong Loon Lin School of Medicine, NUS

MEMBERS
Prof Roger W Beuerman,
Deputy Director,
SERI,
Scientific Director,
SERI

Dr Chan Wing Kwong,
Head,
Refractive Surgery, SNEC

Assoc Prof Chee Soon Phaik,
Head,
Ocular Inflammation & Immunology Service, SNEC

Assoc Prof Paul Chew,
Chief,
Dept of Ophthalmology, NUH

Dr Choo Chai Teck,
Head,
Aesthetic Eye Plastic Service, SNEC

Prof Wallace S Foulds,
Senior Consultant,
SERI

Dr Yvonne Ling,
Head,
Paediatric Ophthalmology, SNEC

Dr Francis Oen,
Head,
Glaucoma Service, SNEC

Assoc Prof Saw Seang Mei,
PhD,
Dept of Community, Occupational & Family Medicine, NUS
STAFF
(Apr 05 – Mar 06)

INSTITUTE DIRECTOR:
Prof Donald Tan

SCIENTIFIC DIRECTOR/DY DIRECTOR:
Prof Roger Beuerman

ASSOC DIRECTOR
[INTERNATIONAL]:
Assoc Prof Wong Tien Yin

ASSOC DIRECTOR
[EDUCATION]:
Assoc Prof Aung Tin

SENIOR CONSULTANT:
Prof Wallace Foulds

SENIOR MANAGER:
Ms Karen Chee

SCIENTISTS (PHD):
Baskaran Mani
Chi Luu
Eranga Vithana
Henry Klassen
Kek Wee Kuan
Li Jing
Liu Shou Ping
Rajesh Sasikumar
Wong Yong Wee
Zhou Lei
Zhu Xiao

RESEARCH ASSISTANTS/TECHNICIANS:
14

CLINICAL STAFF:
29

ACCOUNTS:
3

HUMAN RESOURCES:
2

INSTITUTIONAL REVIEW BOARD SECRETARIAT:
2

Seated (L-R):
Chia Joo Yi, Angeline Neo, Bill Chan, Cindy Lee, Peck Chye Fong, Karen Chee, Wallace S Foulds, Donald Tan, Roger Beuerman, Zhou Lei, Eranga N Vithana, Li Jing, Zhu Xiao, Liu Shou Ping, Kek Wee Kuan, Chi Luu.

1st row (L-R):
Jackson Kwok, Chan Lai Choo, Zhang Jia Qin, Serene Ho, Evelin Tan, Kelly Wong, Koh Ling Jia, Grace Lim, Jolene Ong, Marilina Tay, Victor Yong, Martin Kwan, Shen Jiang Bo, Sung Rhan, Barathi, Andrea Liu, Lavanya Raghavan, Han Tun Aung, Wei Rui Hua, Brendon Zhou, Maisie Ho, Andy Ang, Liew Wei Sen.

2nd row (L-R):
TEACHING AND TRAINING

SERI had four postgraduate students pursuing various ophthalmic research degrees during the year.

MD Degree, National University of Singapore (part time)
Dr Leonard Ang
Dr Lee Sao Bing

Graduate Program
Richard Teo Keng Siang
Louis Tong Hak Tien

4 students completed their candidature, with 1 student being conferred Doctor of Philosophy and 3 student been conferred Master in Science by the National University of Singapore.

Doctor of Philosophy, National University of Singapore
Amutha Barathi

Master in Science, National University of Singapore
Goh Sui Sin
Wei Ruihua
Prathiba Janardhanan

SERI participated in the Biotechnology Industrial Attachment Programme for Biotechnology students. The attachment which lasted three to four months each, allowed the students to gain valuable work and learning experience with the scientists at SERI.

- Bai Jing, Nanyang Technological University
- Cai Wei Yu, Nanyang Technological University
- Eric Xie Jiang, Nanyang Technological University
- Ng Soon Guan, Nanyang Polytechnic
- Daryl Yuen, Ngee Ann Polytechnic
- Lim Ruiy, Ngee Ann Polytechnic
- Melvin Kwong, Ngee Ann Polytechnic
- Shintya Goh, Ngee Ann Polytechnic
- Wan Mei Xian Janice, Ngee Ann Polytechnic
- Chan Kian Kai, Temasek Polytechnic
- De Souza Andrew Nigel, Temasek Polytechnic
- Kelvin John Selva, Temasek Polytechnic

SERI conducts weekly educational seminar to share research findings.
SERI Research Report 05 | 06

TEACHING AND TRAINING (cont’d)

EDUCATION & TRAINING
SERI continues to conduct weekly educational seminar, which provides the platform for SERI scientists and staff to share their research findings. In addition, local and international researchers in both ophthalmic and non-ophthalmic fields were also invited to speak at the SERI weekly seminar.

4 April 2005
Screening for Angle Closure Glaucoma in East Asia
Dr Winnifred Nolan
Associate Consultant
National University Hospital

11 April 2005
A New Software Tool for Comprehensive Bio-Medical Web Searching
Mr Affinin
Retriwa Solutions
School of Computing, Incubation Center
National University of Singapore

25 April 2005
The Role of Parkin in Parkinson’s Disease
Dr Lim Kah Leong
Head, Neurodegeneration Research Laboratory
National Neuroscience Institute

9 May 2005
Rabbit Conjunctival Wound Healing
Dr Zhu Xiao
Research Fellow
Singapore Eye Research Institute

16 May 2005
Matrix Metalloproteinases Expression and Regulation in the Pathogenesis of Pterygium
Dr Lee Sao Bing
Associate Consultant, Department of Ophthalmology
National University Hospital

30 May 2005
Gene Expression in the Sclera of an Experimental Model of Myopia in the Mouse
Dr Wong Yong Wee
Research Fellow, Singapore Eye Research Institute

6 June 2005
Characterization of Bietti Crystalline Dystrophy Patients with CYP4V2 Mutations
Dr Kelvin Lee
Registrar, Singapore National Eye Centre

13 June 2005
Pathogen Recognition Mechanism on Ocular Surface
Dr Li Jing
Research Fellow
Singapore Eye Research Institute

20 June 2005
Molecular Mechanisms in Obligodendrogial Maturation
Dr Ang Beng Ti
Clinical Scientist, Dept of Neurosurgery
National Neuroscience Institute

27 June 2005
Potential Strategies for Future Glaucoma Research in Singapore
A/Prof Paul Chew
Chief, Dept of Ophthalmology
National University of Hospital

4 July 2005
Reduced Intensity Blood Stem Cell Transplant as Cell Therapy for Cancer
Dr Toh Han Chong
Senior Consultant, Dept of Medical Oncology
National Cancer Centre

11 July 2005
Identification of a Novel Adult-onset Primary Open-angle Glaucoma (POAG) Gene on 5q22.1
Mr Victor Yong
Research Officer
Singapore Eye Research Institute

18 July 2005
The Effects of Cysteine Mutations at the C-Terminus of the Ectodomain on the Functional Characteristics of the Thyrotropin Receptor
Dr Ho Su Chin
Consultant and Clinician-Scientist, Dept of Endocrinology
Singapore General Hospital

25 July 2005
Overview of Cataract Genetics
Dr Ashwin Reddy
Consultant Paediatric Ophthalmologist
Moorfields Eye Hospital and Royal London Hospital
TEACHING AND TRAINING (cont’d)

1 August 2005
Acute Angle Closure: A Potential Model for Studying Neuroprotection?
Dr Aung Tin
Consultant, Glaucoma Service
Singapore National Eye Centre

8 August 2005
Acute Brain Injury-Strategies for Brain Salvage and Repair
Dr Ivan Ng
Head, Dept of Neurosurgery
National Neuroscience Institute

15 August 2005
Of Stalling Forks and Surviving Stagnation: Cell Cycle Checkpoints
A/Prof Utam Surana,
Principal Investigator
Institute of Molecular and Cell Biology

22 August 2005
Visual Object Processing Changes with Age: Evidence from Functional Magnetic Resonance Imaging
A/Prof Michael Chee
Clinician Scientist, SingHealth

29 August 2005
Angle-closure Glaucoma- What We Know and What We Need to Know
Dr Paul Foster
Senior Lecturer,
Institute of Ophthalmology
University College London
Consultant, Moorfields Eye Hospital

7 September 2005
Role of NF-Kappa beta in Ocular Surface Inflammation
Dr Michael Stern
Principal Scientist Allergan Pharmaceuticals

12 September 2005
Comparative Genomics Approach for Identifying Functional Elements in the Human Genome
A/Prof Byrappa Venkatesh
Principal Investigator
Institute of Molecular and Cell Biology (IMCB)

19 September 2005
Isolated Perfused Eye Model
Dr Kek Wee Kuan
Research Fellow
Singapore Eye Research Institute

26 September 2005
Pathways Regulating Cell Shape and Contractibility Downstream of Cdc42
A/Prof Ed Manser
Principal Investigator, GSK-IMCB
Institute of Molecular and Cell Biology

3 October 2005
DMER@DSO: Programs and Opportunities
A/Prof Shabbir Moochhala
Programme Director
DMERI @ DSO

10 October 2005
Insulin-like Growth Factor Binding Protein 3: A Novel Biomarker for Diagnosis and Prognosis of Hepatocellular Carcinoma
A/Prof Huynh Hung
Molecular Endocrinology Lab
National Cancer Centre of Singapore

17 October 2005
The Chennai Glaucoma Survey
Dr Baskaran Mani
Research Fellow
Singapore Eye Research Institute

24 October 2005
Insights from Major Clinical Trials of Diabetic Retinopathy
A/Prof Wong Tien Yin
Associate Director
Singapore Eye Research Institute
University of Melbourne

31 October 2005
Visual Electrophysiology Quantifying Visual Function
Dr Audrey Chia
Consultant Paediatric Ophthalmology and Stabismus
Singapore National Eye Centre

7 November 2005
Is Retrospective Clinical Research of Value? Preparation for and Obstacles to Retrospective Clinical Research
Prof Jack Rootman
Professor of Ophthalmology & Pathology University of British Columbia

14 November 2005
Objective Perimetry with Multifocal ERG
Dr Lim Boon Ang
Consultant, Dept of Ophthalmology
Tan Tock Seng Hospital

21 November 2005
Cancer as a Disease of Stem Cells
Dr Carol Tang
Head, Neuro-Oncology
National Neuroscience Institute

28 November 2005
Ethical Considerations in Research involving Human Tissue
Dr Chin Jing Jih
Consultant, Dept of Geriatric Medicine
Tan Tock Seng Hospital

5 December 2005
Biodegradable Biopolymers in Ocular Surgery and Drug Delivery
Prof Hannu Uusitalo
Chairman, Dept of Ophthalmology
University of Kuopio, Finland

9 January 2006
Movement Disorders: From the Bedside to the Laboratory
Dr Tan EK
Senior Consultant and Clinician Scientist
National Neuroscience Institute
Singapore General Hospital

16 January 2006
From Traditional to Molecular Epidemiology
Prof Chia Kee Seng
Director, Centre for Molecular Epidemiology
National University of Singapore
TEACHING AND TRAINING (cont’d)

23 January 2006
Quantitative Analysis of Tear Proteins in Patients with Dry Eye
Dr Zhou Lei
Senior Research Fellow
Singapore Eye Research Institute

6 February 2006
Gene Expression Based Molecular Diagnostics of Breast Cancer
Dr Patrick Tan
Principal Investigator,
National Cancer Centre Group Leader,
Genome Institute of Singapore

13 February 2006
Immune Mechanisms in Anaemia and Chronic Obstructive Pulmonary Disease
Prof Mike Kemeny
Head,
Dept of Microbiology

20 February 2006
The Relationship of Glucose to Retinopathy: Revisiting a Key Criterion in the Definition of Diabetes
A/Prof Wong Tien Yin
Associate Director (International Activities)
Singapore Eye Research Institute

27 February 2006
Orchestration of Telomeres and DNA Repair Factors in Mammalian Cells: Implications for Cancer and Ageing
A/Prof M. Prakash Hande
Dept of Physiology
Yong Loo Lin School of Medicine
National University of Singapore

28 February 2006
A New Phase of Ocular Development - Tightly Coordinated Reductions in Lens Power
Dr Kathryn Rose
School of Applied Vision Science
University of Sydney

Myopia - Focus on Schooling and Outdoor Activities
Dr Ian Morgan
ARC Centre of Excellence in Vision Australian National University Canberra

6 March 2006
Steroid/Nuclear Receptors and Human Health
Prof Yong Eu Leong
Professor & Senior Consultant in Obstetrics & Gynecology
National University of Singapore

13 March 2006
Targeting the Protein Prenylation Pathway in Cancer and Eye Disease
Prof Patrick J. Casey
James B. Duke Professor of Pharmacology and Cancer Biology
Duke University of Medical Center

20 March 2006
Functional Dissection of the Cone Pathway
Dr Chi Luu
Research Fellow
Singapore Eye Research Institute

27 March 2006
Lessons from the Chennai Glaucoma Study
Dr Mani Baskaran
Research Fellow
Singapore Eye Research Institute

SERI also participated actively in Continuing Medical Education programmes at local institutions

25 May 2005
“Osteo-Odonto Keratoprosthesis - A Tooth for an Eye”
Professor Donald Tan
Director, SERI, Deputy Director,
SNEC

26 October 2005
“Cornea Case Presentation”
Dr Andrea Liu,
Research Associate
Singapore Eye Research Institute

18 January 2006
“New Non-Contact Screening Methods: SPAC and IOL Master”
Dr Baskaran Mani,
Research Fellow
Singapore Eye Research Institute

5 September 2005
IP Policy Roadshow “Intellectual Property Protection and the types of IP including patents, trademarks, trade-secrets, copyrights, design”
Dr Peter Saunders,
Deputy Director
SingHealth Research Secretariat

28 March 2006
Stem Cell Club Meeting
“The use of CEA in the Management of Third Degree Burns and the use of Human Epidermal Stem Cell for the Development of Composite Bilayered Skin Substitutes”
Prof S T Lee,
Senior Consultant
Singapore General Hospital
Burn Centre

“Mammalian Retinal Stem Cells - Transplantation and Proliferation”
Dr Henry Klassen,
Senior Scientist
Singapore Eye Research Institute
DEVELOPING INSIGHT

SERI aims to provide greater insight into eye diseases and conditions that are relevant to Singapore and Asia such as myopia, angle closure glaucoma, ocular surface diseases and diabetes.
NEW PROJECTS APPROVED
(April 2005 - March 2006)

1. A Randomised, Double-Masked, Study to Compare the Safety and Efficacy of Bilateral 0.5%, 0.1% & 0.01% Atropine Treatment in Controlling Progression of Myopia in Children (R359/17/2004)
   PI : Donald Tan
   Co-PI : Chua Wei Han
   Collaborators : Vivian Balakrishnan, Yvonne Ling, Quah Boon Long, Audrey Chia, Chan Yiok Huak, Saw Seang Mei, Louis Tong
   Source of Funding : SingHealth Research Fund

2. Argon Laser Peripheral Iridoplasty for Primary Angle Closure Glaucoma: A Randomized Controlled Trial (R399/57/2004)
   PI : Aung Tin
   Collaborators : N.A.
   Source of Funding : N.A.

   PI : Kek Wee Kuan
   Co-PI : Wallace S Foulds
   Collaborators : Chi Luu
   Source of Funding : N.A.

4. Investigation of Delivery Rate and Droplet Size of Nebulised Fluorescein for Clinical Use (R410/05/2005)
   PI : Wallace S Foulds
   Co-PI : Kek Wee Kuan
   Collaborators : N.A.
   Source of Funding : SERI Core Consumables

5. An Investigation into the Genetic Basis of Partial Phenotype, Characteristic of Autosomal Dominant Retinitis Pigmentosa Locus on Chromosome 19q13.4 (RP11) (R411/06/2005)
   PI : Eranga N Withana
   Collaborators : Ruan Yijun, Liu Jianjun, Aung Tin
   Source of Funding : SingHealth Research Fund

6. The Effectiveness of Diabetic Counseling for Patients with Diabetic Retinopathy (R412/07/2005)
   PI : Aw Ai Tee
   Collaborators : Wong Ching Yee, Choo Su Ching, Shau Keng Yee, Edmund Wong
   Source of Funding : SNEC HEF

7. Evaluating the Risk of Raised Intra-Ocular Pressure after Pupil Dilation among Patients with Diabetic Retinopathy (R413/08/2005)
   PI : Chitra Vallei D/O Govindasamy
   Collaborators : Wong Ching Yee, Aw Ai Tee, Ian Yeo, Aung Tin
   Source of Funding : SNEC HEF

   PI : Lee Shu Yen
   Co-PI : Chi Luu
   Collaborators : Ang Chong Lye, Ong Sze Guan, Doric Wong
   Source of Funding : SNEC HEF

9. Optical Coherence Tomography Imaging of the Posterior Segment in High Myopia (R415/10/2005)
   PI : Laurence Lim
   Collaborators : Bobby Cheng, Aung Tin
   Source of Funding : SNEC DRF
NEW PROJECTS APPROVED (cont’d)

10. A Search for Quantitative Trait Loci in Angle Closure Glaucoma (R418/13/2005)
   PI: Aung Tin
   Collaborators: N.A.
   Source of Funding: National Medical Research Council

11. INTACS for Keratoconus (R419/14/2005)
   PI: Donald Tan
   Co-PI: Lim Li
   Collaborators: Wei Ruihua
   Source of Funding: SNEC DRF

12. Association between Multifocal Electrotoretinogram and Myopia Progression (R420/15/2005)
   PI: Chi Luu
   Collaborators: Chua Wei Han, Donald Tan
   Source of Funding: N.A.

13. Effects of Reading on Accommodative Responses (R421/16/2005)
   PI: Anna Yeo
   Co-PI: Wilfred Tang
   Collaborators: Chew Lay Khim Irene, Chan Mei Ling, Tan Ai Ling
   Source of Funding: N.A.

   PI: Saw Seang Mei
   Co-PI: Wong Tien Yin
   Collaborators: Rohit Varma, Sonal Farzanvandi, Audrey Chia, Leo Seo Wei, David Koh, Au Eong Kah Guan, Donald Tan, Joanne Katz, Quah Boon Long, Yvonne Ling
   Source of Funding: National Medical Research Council

15. Investigating the Genetic Basis of Glaucoma: Role of Polymorphisms in the IL-1 Gene Cluster (R423/18/2005)
   PI: Alicia How
   Co-PI: Aung Tin
   Collaborators: N.A.
   Source of Funding: SERI Pilot Grant

16. Selective Laser Trabeculoplasty for Primary Angle-Closure Glaucoma: A Pilot Study (R424/19/2005)
   PI: Ho Ching Lin
   Collaborators: Paul Chew, Francis Den, Aung Tin, Hoh Sek Tien
   Source of Funding: Laserex

   PI: Roger Beuerman
   Collaborators: Eric Yap, Wong Yong Wee, Amutha Barathi
   Source of Funding: National Medical Research Council

18. Effects of Reading on Contrast Sensitivity Function (R428/23/2005)
   PI: Anna Yeo
   Co-PI: Wilfred Tang
   Collaborators: Chew Lay Khim Irene, Chan Mei Ling, Tan Ai Ling
   Source of Funding: N.A.

19. Pathological Changes in Levator Aponeurosis and Muller’s Muscle Complex in Involutional Ptosis (R429/24/2005)
   PI: Shantha Amrith
   Collaborators: Amanda Charlton, Lee Yoke Sun, Angela Takano, Gangadharar Sundar
   Source of Funding: SERI Pilot Grant

20. Comparative Study of Three Intraocular Lens Power Calculation Formulae for Asian Eyes with Axial Lengths Less Than 22mm and Greater Than 25mm (R430/25/2005)
   PI: Zainah Alsagoff
   Collaborators: Chua Wei Han, Lee Mun Wai, Chan Wing Kwong, Ang Chong Lye
   Source of Funding: N.A.
NEW PROJECTS APPROVED (cont’d)

PI : Chan Wing Kwong
Collaborators : Donald Tan, Peter Tseng, Wee Tze Lin, Chua Wei Han
Source of Funding : SNEC DRF

PI : Aung Tin
Collaborators : Sunny Shen
Source of Funding : N.A.

23. A Multi-Center, Prospective, Subject-Masked, Bilateral, Randomized, Controlled Trial to Compare the Safety and Effectiveness of Two Versions of the Bausch & Lomb Zyoptix™ Tissue Saving Aspheric Algorithm to the Current Zyoptix™ Tissue Saving Algorithm when Used for Myopia and Myopic Astigmatism Lasik Treatment (R435/30/2005)
PI : Chan Wing Kwong
Collaborators : Wee Tze Lin
Source of Funding : Bausch & Lomb

PI : Ian Yeo
Collaborators : Ranjana Mathur, Aung Tin, Doric Wong
Source of Funding : N.A.

PI : Daniel Su
Co-PI : Aliza Jap
Collaborators : Chee Soon Phaik, Ang Chong Lye, Donald Tan, Lim Wee Kiak, Bobby Cheng, Kristine Bacsal, Tan Ban Hock, Ashok Kurup, Helen Oh
Source of Funding : SERI Pilot Grant and SNEC DRF

PI : Kristine Bacsal
Collaborators : Chee Soon Phaik, Lim Wee Kiak, Daniel Su
Source of Funding : N.A.

PI : Kristine Bacsal
Collaborators : Chee Soon Phaik, Bobby Cheng, Lim Wee Kiak
Source of Funding : N.A.

PI : Chen Yen
Collaborators : Seah Lay Leng, Fong Kee Siew, Chan Ling Ling, Teoh Swee Hin
Source of Funding : SNEC DRF

29. To Audit the Accuracy of SRK/II in Predicting the Target Postoperative Intracocular Lens Refraction in Singapore National Eye Centre (R441/36/2005)
PI : Lin Lee Hooi
Collaborators : Lee Shu Yen, Ang Chong Lye
Source of Funding : N.A.

30. Quantitative Proteomics of Tear Biomarkers for Dry Eye (R446/41/2005)
PI : Roger Beuerman
Collaborators : Zhou Lei, Donald Tan
Source of Funding : National Medical Research Council

31. A 3-Year, Phase 3, Multicenter, Masked, Randomised, Sham-Controlled Trial to Assess the Safety and Efficacy of 700mg and 350mg Dexamethasone Posterior Segment Drug Delivery System (DEX PS DDS) Applicator System in the Treatment of Patients with Diabetic Macular Edema (R447/42/2005)
PI : Edmund Wong
Collaborators : Bobby Cheng, Ranjana Mathur, Yeo Kim Teck
Source of Funding : Allergan
NEW PROJECTS APPROVED (cont’d)

   PI : Chee Soon Phaik
   Collaborators : Kristine Bacsal
   Source of Funding : N.A.

33. Comparison of Safety and Efficacy of Brinzolamide/ Timolol Fixed Combination vs COSOPT(r) in Patients with Open-Angle Glaucoma or Ocular Hypertension (R449/44/2005)
   PI : Aung Tin
   Collaborators : Francis Oen
   Source of Funding : Alcon

34. Comparative Study of Cycloplegic Refraction and Subjective Refraction with Fogging in School Age Children (R456/05/2006)
   PI : Yvonne Ling
   Collaborators : Lee Mun Wai
   Source of Funding : N.A.

35. Multi Center Prospective Study to Investigate the Pattern of Vogt Koyanagi Harada Disease in South East Asia (R457/06/2006)
   PI : Chee Soon Phaik
   Collaborators : Lim Wee Kiak, Bobby Cheng, Kristine Bacsal
   Source of Funding : SNEC DRF

36. Spectrum of Vogt Koyanagi Harada Disease in Singapore (R458/07/2006)
   PI : Chee Soon Phaik
   Collaborators : Kristine Bacsal
   Source of Funding : N.A.

37. Diurnal Variation of Intraocular Pressure in Primary Angle Closure (R459/08/2006)
   PI : Aung Tin
   Collaborators : N.A.
   Source of Funding : SERI Pilot Grant

   PI : Donald Tan
   Collaborators : Saw Seang Mei, Wong Tien Yin, Aung Tin, Lim Li, Roger Beuerman, Chan Wing Kwong, Khor Wei Boon
   Source of Funding : SERI Pilot Grant

   PI : Aung Tin
   Collaborators : Kelvin Lee, Hoh Sek Tien, Baskaran Mani, Rajesh S Kumar
   Source of Funding : SERI Pilot Grant
**PROJECTS COMPLETED DURING THE YEAR**
(April 2005 - March 2006)

<table>
<thead>
<tr>
<th>Project Title</th>
<th>PI</th>
<th>Collaborators</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Changes in the refractive components in myopic and emmetropic eyes: A two-centre study (SERI/MG/97-04/0005)</td>
<td>Saw Seang Mei</td>
<td>Donald T H Tan, Chua Wei Han, Louis Tong, Chia Kee Seng, Audrey Chia, Allan Fong, David Koh</td>
<td>National Medical Research Council</td>
</tr>
<tr>
<td>2. Topical atropine in the control of school myopia (R115/22/98)</td>
<td>Donald T H Tan, Co-PI: Vivian Balakrishnan</td>
<td>Yvonne Ling, Quah Boon Long, Chua Wei Han, Louis Tong, Saw Seang Mei</td>
<td>National Medical Research Council</td>
</tr>
<tr>
<td>3. Developing molecular tests for rapid identification of clinical pathogens causing severe ocular infections (SERI/MG/99-03/0018)</td>
<td>Chan Tat Keong</td>
<td>Song Keang Peng, Donald Tan</td>
<td>National Medical Research Council</td>
</tr>
<tr>
<td>6. A multi-centre, randomised, double-masked controlled study to evaluate the safety and efficacy of an intravitreal fluocinolone acetonide (0.5 or 5mg) implant in patients with non-infectious uveitis affecting the posterior segment of the eye (BLP 415-004) (R269/13/2002)</td>
<td>Chee Soon Phaik</td>
<td>Lim Wee Kiak, Bobby Cheng Ching Li</td>
<td>Bausch &amp; Lomb</td>
</tr>
<tr>
<td>7. A prospective, randomised, trial evaluating the operational efficacy of LASIK vs PRK for the correction of low and moderate myopia in the Singapore Armed Forces (R277/21/2002)</td>
<td>Donald Tan, Co-PI: Benjamin Seet, Allan Yeo</td>
<td>Chan Wing Kwong, Andrew Carkeet, Saw Seang Mei, Julian Theng, Mohd Farook</td>
<td>DMERI</td>
</tr>
</tbody>
</table>
9. Prospective clinical trial on the use of Osteo-Odonto Keratoprosthesis in the surgical rehabilitation of severe endstage corneal and ocular surface disorders (R298/42/2002)

   PI : Donald Tan
   Collaborators : Julian Theng, Andrew Tay
   Funding Source : SNEdiscretionary Research Fund


   PI : Wong Tien Yin
   Collaborators : Ng Tze Pin, Saw Seang Mei, Wynne Hsu, Lee Mong Li, Paul Mitchell
   Funding Source : SERI Pilot Grant

11. The effectiveness of educational materials on increasing patient knowledge and allaying anxiety in cataract surgery (R323/16/2003)

   PI : Tan Joon Fong
   Collaborators : SNEC Listing Room Staff, SNEC Day Ward Staff, other SNEC Staff
   Funding Source : SNEC Nursing Department

12. An investigation into the correlation between retinal nerve fiber layer and optic disc changes after acute primary angle closure (R327/20/2003)

   PI : Aung Tin
   Collaborators : Steve Seah, Allan Tong
   Funding Source : SERI Pilot Grant

13. A prospective multicenter clinical trial to evaluate the safety and effectiveness of the AcuFocus Corneal Inlay (ACI™) in presbyopic subjects (R332/25/2003)

   PI : Donald Tan
   Collaborators : Chan Wing Kwong, Wee Tze Lin
   Funding Source : AcuFocus Inc


   PI : Lee Shu Yen, Co-PI: Ian Yeo
   Collaborators : NA
   Funding Source : NA

15. Investigation of the role of the myocilin gene in primary angle closure glaucoma (R356/14/2004)

   PI : Aung Tin
   Collaborators : Paul Chew, Steve Seah
   Funding Source : NUS-ARF

16. Is recurrent anterior segment inflammation in Vogt-Koyanagi-Harada disease (VKH) accompanied by choroidal inflammation and if so, is this treatable? (R360/18/2004)

   PI : Chee Soon Phaik
   Collaborators : Bobby Cheng, Chi Luu, Aliza Jap
   Funding Source : NA

17. Retrospective case review of 20 cases with compressive optic neuropathy (R366/24/2004)

   PI : Chee Soon Phaik
   Collaborators : Fong Kee Siew
   Funding Source : NA

18. Clinical comparison of corneal clarity using Sovereign Whitestar™ phacoemulsification system for cataract extraction, bimanual microincision vs coaxial phacoemulsification - A pilot trial (R375/33/2004)

   PI : Chee Soon Phaik
   Collaborators : Ti Seng Ei, Kristine Bacsal
   Funding Source : SNEdiscretionary Research Fund


   PI : Chee Soon Phaik
   Collaborators : NA
   Funding Source : SERI Pilot Grant


   PI : Daniel Su
   Co-PI : Bobby Cheng
   Collaborators : Chee Soon Phaik, Amutha Barathi, Zhu Xiao, Chi Luu, Elizabeth Cheah
   Funding Source : SERI Pilot Grant
## PROJECTS COMPLETED DURING THE YEAR (cont'd)

21. A Singapore pilot study to evaluate the efficacy of a computerized system for the vision enhancement of people with visual aids (R393/51/2004)

<table>
<thead>
<tr>
<th>PI</th>
<th>Wilfred Tang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-PI</td>
<td>Donald Tan</td>
</tr>
<tr>
<td>Collaborators</td>
<td>NA</td>
</tr>
<tr>
<td>Funding Source</td>
<td>NA</td>
</tr>
</tbody>
</table>

22. The management of orbital cellulitis in children (R407/02/2005)

<table>
<thead>
<tr>
<th>PI</th>
<th>Morgan Yang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-PI</td>
<td>Audrey Looi</td>
</tr>
<tr>
<td>Collaborators</td>
<td>Seah Lay Leng, Quah Boon Long</td>
</tr>
<tr>
<td>Funding Source</td>
<td>NA</td>
</tr>
</tbody>
</table>

23. Investigation of delivery rate and droplet size of nebulised fluorescein for clinical use (R410/05/2005)

<table>
<thead>
<tr>
<th>PI</th>
<th>Wallace Foulds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-PI</td>
<td>Kek Wee Kuan</td>
</tr>
<tr>
<td>Collaborators</td>
<td>NA</td>
</tr>
<tr>
<td>Funding Source</td>
<td>SERI Core</td>
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</tbody>
</table>


<table>
<thead>
<tr>
<th>PI</th>
<th>Aw Ai Tee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-PI</td>
<td>Wong Ching Yee</td>
</tr>
<tr>
<td>Collaborators</td>
<td>Choo Su Ching, Shau Keng Yee, Edmund Wong</td>
</tr>
<tr>
<td>Funding Source</td>
<td>SNEC Nursing Fund</td>
</tr>
</tbody>
</table>

25. Comparison scanning peripheral anterior chamber depth analyser (SPAC) with modified von Herrick grading system (vH) in normal and narrow angle subjects (R417/12/2005)

<table>
<thead>
<tr>
<th>PI</th>
<th>Aung Tin</th>
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</thead>
<tbody>
<tr>
<td>Collaborators</td>
<td>Baskaran Mani</td>
</tr>
<tr>
<td>Funding Source</td>
<td>NA</td>
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</table>

26. Association between multifocal electroretinogram and myopia progression (R420/15/2005)

<table>
<thead>
<tr>
<th>PI</th>
<th>Chi Luu</th>
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<td>Collaborators</td>
<td>NA</td>
</tr>
<tr>
<td>Funding Source</td>
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</table>

27. Investigating the genetic basis of glaucoma: Role of polymorphisms in the IL-1 gene cluster (R423/18/2005)

<table>
<thead>
<tr>
<th>PI</th>
<th>Alicia How</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-PI</td>
<td>Aung Tin</td>
</tr>
<tr>
<td>Collaborators</td>
<td>NA</td>
</tr>
<tr>
<td>Funding Source</td>
<td>SERI Pilot Grant</td>
</tr>
</tbody>
</table>

28. Prognostic factors in dengue maculopathy (R438/33/2005)

<table>
<thead>
<tr>
<th>PI</th>
<th>Kristine Bacsal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborators</td>
<td>Chee Soon Phaik, Bobby Cheng, Lim Wee Kiak, Daniel Su</td>
</tr>
<tr>
<td>Funding Source</td>
<td>NA</td>
</tr>
</tbody>
</table>

29. Ocular manifestations of dengue fever - case series and review of literature (R439/34/2005)

<table>
<thead>
<tr>
<th>PI</th>
<th>Kristine Bacsal</th>
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<td>Kristine Bacsal</td>
</tr>
<tr>
<td>Funding Source</td>
<td>NA</td>
</tr>
</tbody>
</table>
COLLABORATIONS
as at September 2006

LOCAL INSTITUTIONS
- Changi General Hospital
  - Dept of Ophthalmology
- Defence Medical & Environmental Research Institute
- Genome Institute of Singapore
- Health Promotion Board
- John Hopkins Singapore
- KK Women’s and Children’s Hospital
  - Dept of Ophthalmology
- National Cancer Centre
- National Dental Centre
- National Heart Centre
- National University of Singapore
  - Dept of Anatomy
  - Dept of Community, Occupational and Family Medicine
  - Dept of Microbiology
  - Dept of Ophthalmology
  - Dept of Physiology
- Nanyang Technological University
- Singapore Armed Forces
- SingHealth Research
- Singapore Polytechnic
  - Optometry Centre
- Singapore General Hospital
  - Burns Laboratory
  - Dept of Clinical Research
  - Dept of Endocrinology
  - Dept of Experimental Research
  - Dept of Experimental Surgery
  - Dept of Obstetrics and Gynaecology
- The Eye Institute, National Healthcare Group
  - Alexandra Hospital
  - National University Hospital
  - Tan Tock Seng Hospital

OVERSEAS INSTITUTIONS
- Bascom Palmer Eye Institute, USA
  - Center for Eye Research Australia, University of Melbourne, Australia
- Center National De La Recherche Scientifique, France
- Cleveland Eye Clinic, Cleveland, Ohio, USA
- Eccles Institute of Human Genetics, University of Utah, UT, USA
- Institute of Ophthalmology, University College London, UK
- Johns Hopkins University, USA
- Kyoto Prefectural University of Medicine, Kyoto, Japan
- Lions Eye Institute, Perth, Australia
- Mahidol University, Salaya Campus (Institute of Molecular Biology), Thailand
- Moorfields Eye Hospital, UK
- National Eye Institute, National Institutes of Health
- Philippines Academy of Ophthalmology
- Sankara Nethralaya
- Strathclyde University, Glasgow, UK
- The Feinberg School of Medicine, Northwestern University, Chicago, Illinois, USA
- The University of Glasgow, UK
- Tianjin Medical University, Eye Centre, Tianjin, PR China
- Tongren Hospital, Beijing, PR China
- University of Aberdeen, UK
- University of British Columbia, Canada
- University of Hiroshima, Hiroshima, Japan
- University of Pennsylvania, USA
- Dept of Ophthalmology, University of Sydney, Australia
- University of Wisconsin, Madison, USA
- Xiamen Eye Centre, PR China
- Yamanashi Medical University, Yamanashi, Japan

INDUSTRY COLLABORATIONS
- Acufocus, USA
- Advanced Medical Optics (AMO)
- Alcon
- Allergan
- Bausch & Lomb, USA
- Carl Zeiss
- HOYA Corporation, Japan
- Keravision, USA
- Menicon, Japan
- NeuroVision Inc, USA
- Novartis Pharma AG, Switzerland
- Oculex Pharmaceuticals, USA
- Proneuron
- Pfizer (S) Pte Ltd
- Regenera Ltd, Australia
- SOLA International Holdings Ltd
SPREADING BEYOND

Having achieved world-class standards in vision research, SERI has established ongoing worldwide alliances and collaborations with leading research institutions, pharmaceutical corporations and industry.
EVENTS

INTERNATIONAL ACTIVITIES
SERI staff and associates participated actively in overseas conferences during the year to establish links with overseas institutes, meet up with overseas collaborators and to promote and enhance SERI’s presence in the international scene.

Conferences / meetings participated includes:

- 20th Asia Pacific Academy of Ophthalmology Congress (APAO)
  27 - 31 March 2005, Kuala Lumpur, Malaysia

- Congress of Ophthalmology and Optometry (COO)
  7 - 10 April 2005, Pudong, Shanghai

- World Cornea Congress V
  13 - 19 April 2005, Washington, USA

- American Society of Cataract & Refractive Surgery (ASCRS) World Cornea Congress
  15 - 20 April 2005, Washington

- Association for Research in Vision and Ophthalmology (ARVO)
  1 - 5 May 2005, Fort Lauderdale, USA

- International Society of Refractive Surgery/American Academy of Ophthalmology (ISRS/AAO) Meeting
  14 - 16 May 2005, Wanchai, Hong Kong

- IV Congresso Sicsso International Scientific Meeting
  2 - 4 June 2005, Venice

- 18th Asia-Pacific Association of Cataract & Refractive Surgeons (APACRS)
  Annual Meeting in Conjunction with 8th Congress of Chinese Cataract Surgery
  3 - 6 June 2005, Beijing, China

- 53rd American Society for Mass Spectrometry Conference
  5 - 9 June 2005, San Antonio, Texas

- BIO 2005 Annual International Convention
  19 - 22 June 2005, Philadelphia

- Royal Australian and New Zealand College of Ophthalmologists Conference (RANZCO)
  14 - 18 July 2005, Australia

- ESO International Vision Science and Optometry Conference (EIVOC)
  13 - 15 August 2005, Chennai, India

- Minneapolis - Ocular Surface Symposium 2005
  9 - 11 September 2005, Minneapolis, USA

- 109th Annual Meeting of American Academy of Ophthalmology (AAO)
  15 - 18 October 2005, Chicago, USA

- 2005 PAO-AAO Joint Meeting
  28 November - 1 December 2005, Philippines

- SM Jogjakarta Roadshow
  13 - 14 January 2006, Yogyakarta, Indonesia

- 64th Annual AIOS Conference
  9 - 12 February 2006, Bhopal, India

- Alcon Global Anterior Segment Leadership Council Meeting
  17 - 19 February 2006, Brazil

- World Ophthalmology Congress, 2006
  19 - 24 February 2006, Brazil

- Cornea Course
  11 - 12 March 2006, Bombay, India

- Corneal Society of Taiwan Academy of Ophthalmology
  12 March 2006, Taipei, Taiwan

- ASCRS Symposium in Cataract, IOL & Refractive Surgery/ASOA Congress in Ophthalmic Practice Management
  17 - 22 March 2006, San Francisco, USA
AWARDS

Prof Donald Tan, Director, SERI
AMERICAN SOCIETY OF CATARACT AND
REFRACTIVE SURGERY MEETING, USA
16 - 20 APRIL 2005

- First Prize in the Film Festival
  New Techniques – A Tooth for an Eye: The Osteo-Odonto Keratoprothesis
- Best Paper of Session: Cornea
  Cornea: Orthokeratology, Tissue, Presbyopia

Assoc Prof Aung Tin, Assoc Director, SERI
NATIONAL MEDICAL RESEARCH COUNCIL –
BIOMEDICAL RESEARCH COUNCIL CLINICIAN SCIENTIST AWARDS
April 2005

This is awarded to outstanding and talented researchers who desire to receive training in their areas of interest or to pursue an MSc or PhD in health and medical research in leading local or overseas institutions.

Dr Leonard Ang, Consultant, SNEC
SINGAPORE NATIONAL ACADEMY OF SCIENCE
September 2005

- Singapore National Academy of Science Young Scientist Award
  Awarded for his research on ocular stem cells, bioengineering of eye tissues and ocular surface transplantation for the treatment of eye disease. Dr Ang was the only recipient in the medical field among the 9 National Science and Technology award winners for the year. Dr Ang is also the first ophthalmologist in Singapore to receive this award.

Assoc Prof Wong Tien Yin

- DISTINGUISHED SERVICE AWARD,
  ASIA PACIFIC ACADEMY OF OPHTHALMOLOGY
- WOODWARD MEDAL FOR SCIENCE AND TECHNOLOGY,
  UNIVERSITY OF MELBOURNE, AUSTRALIA

A/Prof Wong Tien Yin was awarded the Woodward Medal in Science and Technology by the University of Melbourne, which is awarded annually for research considered to have made the most significant contribution in the field of science and technology in the University during the preceding three years.


PUBLICATIONS (cont’d)


76. Por YM, Chee SP. Late spontaneous anterior dislocation of an intraocular lens (IOL) with the capsular bag. Eye 2005. (Impact Factor: 1.496)
PUBLICATIONS (cont’d)


PUBLICATIONS (cont’d)


PUBLICATIONS (cont’d)


PRESENTATIONS
(April 2005 - March 2006)


PRESENTATIONS (cont’d)


22. Chua WH, Tan D, Balakrishnan V, Chan YH. Progression of childhood myopia following cessation of atropine treatment. The Association for Research in Vision and Ophthalmology (ARVO), 1-5 May 2005. Fort Lauderdale, USA.


31. How ACS, Aung T, Yong VHK, Tan DTH, Vithana EN. Analysis of known corneal endothelial dystrophy loci in a Chinese family with Fuchs endothelial dystrophy. The Association for Research in Vision and Ophthalmology (ARVO), 1 - 5 May 2005. Fort Lauderdale, USA.


45. Lim WK, Mahesh PS, Fujimoto C, Gery I, Chan CC, Li ZQ, Nussenblatt RB. Intravitreal injection of interleukin 1 receptor antagonist suppresses experimental autoimmune uveoretinitis in lewis rats. The Association for Research in Vision and Ophthalmology (ARVO), 1-5 May 2005. Fort Lauderdale, USA.


75. Tong LM, Li DQ, Pflugfelder SC. Transglutaminase and small proline rich proteins may be absent in putative limbal epithelial stem cells. 6th Annual Retreat Center for Cell and Gene Therapy, 10 - 11 November 2005. 2005. Galveston, Texas, USA.


EMBRACING CLARITY

SERI sets and maintains scientific and ethical standards for clinical and basic research in ophthalmology in Singapore.
DIRECTORS’ REPORT

The directors are pleased to present their report to the members together with the audited financial statements of Singapore Eye Research Institute (the “Company”) for the financial year ended 31 March 2006.

Directors

The directors of the Company in office at the date of this report are:

Prof Lim Siew Ming Arthur
Prof Donald Tan Tiang Hwee
CL A/Prof Ang Chong Lye
BG A/Prof Lee Kim Hock Lionel
Mr Wong Yew Meng
Prof Lim Mong King
Prof Wong Eu-Li

Arrangements to enable directors to acquire shares or debentures

Neither at the end of nor at any time during the financial year was the Company a party to any arrangement whose object is to enable the directors of the Company to acquire benefits by means of the acquisition of shares in or debentures of the Company or any other body corporate.

Directors’ interests in shares or debentures

According to the register kept by the Company for the purposes of Section 164 of the Singapore Companies Act, no director who held office at the end of the financial year had an interests in shares or debentures of the Company, or of related corporations, either at the beginning of the financial year or at the end of the financial year.

Directors’ contractual benefits

Except as disclosed in Note 14 since the end of the last financial year, no director has received or become entitled to receive a benefit, by reason of a contract made by the Company or a related corporation with the director or with a firm of which he is a member or with a company in which he has a substantial financial interest.

Auditors

Ernst and Young have expressed their willingness to accept re-appointment as auditors of the Company.

On behalf of the Board of Directors

Prof Donald Tan Tiang Hwee
Director

CL A/Prof Ang Chong Lye
Director

Singapore
2006
STATEMENT BY DIRECTORS

We, Prof Donald Tan Tiang Hwee and CL A/Prof Ang Chong Lye, being two of the directors of Singapore Eye Research Institute, do hereby state that in our opinion:

(a) the balance sheet, statement of income and expenditure and cash flow statement together with the notes thereto, set out on pages 5 to 21 are drawn up so as to give a true and fair view of the state of affairs of the Company as at 31 March 2006 and the results and cash flows of the Company for the year ended on that date; and

(b) at the date of this statement there are reasonable grounds to believe that the Company will be able to pay its debts as and when they fall due.

On behalf of the Board of Directors

Prof Donald Tan Tiang Hwee
Director
Singapore
2006

CL A/Prof Ang Chong Lye
Director
AUDITORS’ REPORT

to the Member of Singapore Eye Research Institute

We have audited the accompanying financial statements of Singapore Eye Research Institute (the “Company”) as set out on pages 5 to 21 for the year ended 31 March 2006. These financial statements are the responsibility of the Company’s directors. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Singapore Standards on Auditing. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the directors, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion,

[a] the financial statements are properly drawn up in accordance with the provisions of the Singapore Companies Act, Cap. 50 (the “Act”) and Singapore Financial Reporting Standards so as to give a true and fair view of the state of affairs of the Company as at 31 March 2006 and the results and cash flows of the Company for the financial year ended on that date; and

[b] the accounting and other records required by the Act to be kept by the Company have been properly kept in accordance with the provisions of the Act.

ERNST & YOUNG
Certified Public Accountants

Singapore
2006
## BALANCE SHEET
as at 31 March 2006

(In Singapore dollars)

<table>
<thead>
<tr>
<th></th>
<th>Note</th>
<th>2006 $</th>
<th>2005 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>3</td>
<td>3,829,235</td>
<td>3,714,115</td>
</tr>
<tr>
<td>Intangible assets</td>
<td>4</td>
<td>69,411</td>
<td>40,382</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and bank balances</td>
<td>5</td>
<td>3,019,330</td>
<td>1,615,415</td>
</tr>
<tr>
<td>Trade and other receivables</td>
<td>6</td>
<td>744,664</td>
<td>1,821,178</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td></td>
<td>3,763,994</td>
<td>3,436,593</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade and other payables</td>
<td>7</td>
<td>1,379,308</td>
<td>1,625,185</td>
</tr>
<tr>
<td>Employee benefits</td>
<td>8</td>
<td>84,280</td>
<td>89,601</td>
</tr>
<tr>
<td>Deferred capital expenditure grant</td>
<td>10</td>
<td>1,078,039</td>
<td>946,525</td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td></td>
<td>2,541,627</td>
<td>2,661,311</td>
</tr>
<tr>
<td><strong>Net current assets</strong></td>
<td></td>
<td>1,222,367</td>
<td>775,282</td>
</tr>
<tr>
<td><strong>Non-current liability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred capital expenditure grant</td>
<td>10</td>
<td>(2,791,686)</td>
<td>(2,805,407)</td>
</tr>
<tr>
<td><strong>Total non-current liability</strong></td>
<td></td>
<td>2,329,327</td>
<td>1,724,372</td>
</tr>
<tr>
<td><strong>Accumulated fund</strong></td>
<td>12</td>
<td>2,329,327</td>
<td>1,724,372</td>
</tr>
</tbody>
</table>

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.
### STATEMENT OF INCOME AND EXPENDITURE
for the year ended 31 March 2006

<table>
<thead>
<tr>
<th>(In Singapore dollars)</th>
<th>Note</th>
<th>2006 $</th>
<th>2005 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMRC operating expenditure grant</td>
<td>13</td>
<td>3,282,490</td>
<td>3,490,887</td>
</tr>
<tr>
<td>Other operating expenditure grant</td>
<td></td>
<td>1,692,762</td>
<td>1,747,343</td>
</tr>
<tr>
<td>NMRC capital expenditure grant</td>
<td>13</td>
<td>386,120</td>
<td>383,248</td>
</tr>
<tr>
<td>Other capital expenditure grant</td>
<td></td>
<td>379,156</td>
<td>362,656</td>
</tr>
<tr>
<td>Other income</td>
<td></td>
<td>1,182,282</td>
<td>1,710,096</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>6,922,810</strong></td>
<td><strong>7,694,230</strong></td>
</tr>
</tbody>
</table>

**Less: Expenses**

<table>
<thead>
<tr>
<th></th>
<th>Note</th>
<th>2006 $</th>
<th>2005 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff cost</td>
<td>14</td>
<td>3,762,301</td>
<td>3,263,910</td>
</tr>
<tr>
<td>Supplies and consumables</td>
<td></td>
<td>880,463</td>
<td>1,476,163</td>
</tr>
<tr>
<td>Depreciation of property, plant and equipment</td>
<td></td>
<td>733,094</td>
<td>723,818</td>
</tr>
<tr>
<td>Amortisation of intangible assets</td>
<td></td>
<td>27,473</td>
<td>21,737</td>
</tr>
<tr>
<td>Rental and utilities</td>
<td></td>
<td>180,639</td>
<td>166,229</td>
</tr>
<tr>
<td>Purchased and contracted services</td>
<td></td>
<td>129,699</td>
<td>123,663</td>
</tr>
<tr>
<td>Repair and maintenance</td>
<td></td>
<td>230,830</td>
<td>210,291</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td></td>
<td>373,356</td>
<td>682,238</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>6,317,855</strong></td>
<td><strong>6,668,049</strong></td>
</tr>
</tbody>
</table>

**Surplus before tax**

<table>
<thead>
<tr>
<th></th>
<th>Note</th>
<th>2006 $</th>
<th>2005 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income tax</td>
<td>17</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>604,955</strong></td>
<td><strong>1,026,181</strong></td>
</tr>
</tbody>
</table>

**Surplus after tax**

<table>
<thead>
<tr>
<th></th>
<th>2006 $</th>
<th>2005 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulated surplus brought forward</td>
<td></td>
<td>1,724,372</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>2,329,327</strong></td>
</tr>
</tbody>
</table>

The Company had no other changes in shareholders’ equity except for surplus after tax of $604,955 (2005: $1,026,181) for the financial year ended 31 March 2006.

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.
# STATEMENT OF CASH FLOWS
for the year ended 31 March 2006

(In Singapore dollars)

<table>
<thead>
<tr>
<th>Note</th>
<th>2006 $</th>
<th>2005 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surplus before income tax</td>
<td>604,955</td>
<td>1,026,181</td>
</tr>
<tr>
<td>Adjustments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation of property, plant and equipment</td>
<td>733,094</td>
<td>723,818</td>
</tr>
<tr>
<td>Amortisation of intangible assets</td>
<td>27,473</td>
<td>21,737</td>
</tr>
<tr>
<td>Loss on disposal of property, plant and equipment</td>
<td>11,674</td>
<td>685</td>
</tr>
<tr>
<td>Amortisation of deferred capital expenditure grant</td>
<td>(753,601)</td>
<td>(745,220)</td>
</tr>
<tr>
<td>Operating surplus before working capital changes</td>
<td>623,595</td>
<td>1,027,201</td>
</tr>
<tr>
<td>Decrease/(increase) in trade and other receivables</td>
<td>1,076,514</td>
<td>(448,956)</td>
</tr>
<tr>
<td>Decrease in trade and other payables</td>
<td>(251,198)</td>
<td>(2,449,195)</td>
</tr>
<tr>
<td><strong>Net cash generated from/(applied in) operating activities</strong></td>
<td><strong>1,448,911</strong></td>
<td><strong>(1,870,950)</strong></td>
</tr>
<tr>
<td>Cash flows from investing activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of property, plant and equipment</td>
<td>(859,888)</td>
<td>(637,903)</td>
</tr>
<tr>
<td>Purchase of intangible assets</td>
<td>(56,502)</td>
<td>(24,085)</td>
</tr>
<tr>
<td>Donations for capital expenditure</td>
<td>871,394</td>
<td>658,403</td>
</tr>
<tr>
<td><strong>Net cash generated from/[used in] investing activities</strong></td>
<td><strong>(44,996)</strong></td>
<td><strong>(3,585)</strong></td>
</tr>
<tr>
<td>Net increase/(decrease) in cash and bank balances</td>
<td>1,403,915</td>
<td>(1,874,535)</td>
</tr>
<tr>
<td>Cash and bank balances at beginning of year</td>
<td>1,615,415</td>
<td>3,489,950</td>
</tr>
<tr>
<td>Cash and bank balances at end of year</td>
<td>3,019,330</td>
<td>1,615,415</td>
</tr>
</tbody>
</table>

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.
NOTES TO THE FINANCIAL STATEMENTS
31 March 2006

(In Singapore dollars)

These notes form an integral part of the financial statements.

The financial statements were authorised for issue by the directors on 31 March 2006.

1. Domicile and Activities

The Company is a private limited company domiciled and incorporated in Singapore. The Company, incorporated in Singapore as a company limited by guarantee, is a wholly-owned subsidiary of Singapore National Eye Centre Pte Ltd. The ultimate holding company is MOH Holdings Pte Ltd. Both immediate and ultimate holding companies are incorporated in Singapore. The Company has been registered as a Charity, under the Charities Act, Cap. 37 with effect from 27 November 2002.

The address of the Company’s registered office is 11 Third Hospital Avenue, #07-00 SNEC Building, Singapore 168751. The address of its principal place of business is 11 Third Hospital Avenue, #05/06-00 SNEC Building, Singapore 168751.

The principal activity of the Company is to carry out eye-related medical research projects. There have been no significant changes in the nature of these activities during the financial year.

2. Summary of Significant Accounting Policies

(a) Basis of Preparation

The financial statements are prepared in accordance with Singapore Financial Reporting Standards (FRS) including related Interpretations promulgated by the Council on Corporate Disclosure and Governance.

The financial statements are presented in Singapore dollars and rounded to the nearest thousand, unless otherwise stated. They are prepared on the historical cost basis except for certain financial assets and financial liabilities which are stated at fair value.

Adoption of new and revised FRS

In 2005, the Company adopted the following new/revised FRSs which are relevant to its operations:

- FRS 1 (revised) Presentation of Financial Statements
- FRS 8 (revised) Accounting Policies, Changes in Accounting Estimates and Errors
- FRS 10 (revised) Events After the Balance Sheet Date
- FRS 16 (revised) Property, Plant and Equipment
- FRS 17 (revised) Leases
- FRS 21 (revised) The Effects of Changes in Foreign Exchange Rates
- FRS 24 (revised) Related Party Disclosures
- FRS 32 (revised) Financial Instruments: Disclosure and Presentation
- FRS 36 (revised) Impairment of Assets
- FRS 38 (revised) Intangible Assets
- FRS 39 Financial Instruments: Recognition and Measurement

There is no material impact as a result of adopting the new/revised FRS.
NOTES TO THE FINANCIAL STATEMENTS (cont’d)

2. Summary of Significant Accounting Policies (cont’d)

(a) Basis of Preparation (cont’d)

FRS and INT FRS not yet effective

The Company has not applied the following FRS and INT FRS that have been issued but are only effective for annual financial periods beginning on or after 1 January 2006:

(i) FRS 106 - Exploration for and Evaluation of Mineral Resources
This standard does not apply to the activities of the Company.

(ii) INT FRS 104 - Determining Whether an Arrangement Contains a Lease
This interpretation requires the determination of whether an arrangement is, or contains a lease to be based on the substance of the arrangement and requires an assessment of whether the arrangement is dependent on the use of a specific asset or assets and the arrangement conveys a right to use the asset.

(iii) INT FRS 105 - Rights to Interests Arising from Decommissioning, Restoration and Environmental Rehabilitation Funds
This interpretation is not expected to be relevant to the activities of the Company.

The Company expects that the adoption of the pronouncements listed above will have no impact on the financial statements in the period of initial application.

(iv) FRS 107 - Financial Instruments: Disclosure
This standard, effective for annual financial periods beginning on or after 1 January 2007, requires quantitative disclosures of nature and extent of risks arising from financial instruments in addition to the disclosures currently required under FRS 32. Adoption of this standard will result additional disclosures in the financial statement.

(v) INT FRS 106, Liabilities Arising from Participation in A Specific Market - Waste Electrical and Electronic Equipment (effective for annual financial periods beginning on or after 1 December 2005)
This interpretation does not apply to the activities of the Company.

(vi) INT FRS 107, Applying the Restatement Approach under FRS 29, Financial Reporting in Hyperinflationary Economies (effective for annual financial periods beginning or after 1 March 2006)
This interpretation does not apply to the activities of the Company.
2. Summary of Significant Accounting Policies (cont’d)

(b) Significant accounting estimates and judgements

The preparation of financial statements in conformity with FRSs requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying amounts of assets and liabilities that are not readily apparent from other sources.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised, if the revision affects only that period, or in the period of the revision and future periods, if the revision affects both current and future periods.

Key source of estimation uncertainty

The key assumption concerning the future and other key source of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year is discussed below.

Depreciation of property, plant and equipment

The cost of property, plant and equipment for the treatment of eye diseases, medical education and research in ophthalmology is depreciated on a straight-line basis over its useful lives. Management estimates the useful lives of these property, plant and equipment to be within 3 to 10 years. The carrying amount of the Company’s property, plant and equipment at 31 March 2006 was $3,829,235 (2005: $3,714,115). Changes in the expected level of usage and technological developments could impact the economic useful lives and the residual values of these assets, therefore future depreciation charges could be revised.

Critical judgement made in applying accounting policies

There are no critical judgements made in the preparation of the financial statements.

(c) Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses.

Low value assets costing less than $1,000 individually are written off in the period of outlay.

Donated property, plant and equipment received costing less than $1,000 are written off in the period of receipt. The corresponding donation income is recognised in the income and expenditure account in the period of receipt. Donated property, plant and equipment received costing more than $1,000 are capitalised and depreciated over their useful lives so as to match the related amortisation of the deferred income.

Property, plant and equipment acquired through finance leases are capitalised at the lower of its fair value and the present value of the minimum lease payments at the inception of the lease, less accumulated depreciation and impairment losses. Lease payments are apportioned between the finance charges and reductions of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly against the income and expenditure account. Capitalised leased assets are depreciated over the shorter of the economic useful life of the asset and the lease term.
2. Summary of Significant Accounting Policies (cont’d)

(c) Property, Plant and Equipment (cont’d)

Depreciation is provided on a straight-line basis so as to write off items of property, plant and equipment and major components that are accounted for separately, over their estimated useful lives as follows:

<table>
<thead>
<tr>
<th>Years</th>
<th>Computers</th>
<th>Medical and laboratory equipment</th>
<th>Office equipment</th>
<th>Furniture and fittings</th>
<th>Building improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>8</td>
<td>5</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

The carrying values of property, plant and equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable.

The useful lives and residual values, if not insignificant are reassessed annually.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset is included in the income and expenditure account in the year the asset is derecognised.

(d) Intangible Assets

Computer software, which is not an integral part of the related hardware, is accounted for as an intangible asset and is stated at cost less accumulated amortisation and impairment losses.

No amortisation is provided on software development-in-progress.

Amortisation of computer software is charged to the income and expenditure account on a straight-line basis over its estimated useful life of 3 to 5 years.

(e) Impairment

The carrying amounts of the Company’s assets are reviewed at each balance sheet date to determine whether there is any indication of impairment. If any such indication exists, the asset’s recoverable amount is estimated. For intangible assets that are not yet available for use, the recoverable amount is estimated at each balance sheet date.

An impairment loss is recognised in the income and expenditure account whenever the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. The recoverable amount is the greater of the asset’s net selling price and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.
NOTES TO THE FINANCIAL STATEMENTS (cont’d)

2. Summary of Significant Accounting Policies (cont’d)

(e) Impairment (cont’d)

An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset’s carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(f) Financial assets

Financial assets are recognised on the balance sheet when, and only, the Company becomes a party to the contractual provisions of the financial instrument.

Non-derivative financial assets with fixed or determinable payments that are not quoted in an active market are classified as loans and receivables. Such assets are initially recognised at fair value, plus directly attributable transaction costs and subsequently carried at an amortised cost using the effective interest method. Gains and losses are recognised in profit and loss account when the loan and receivables are derecognised or impaired, as well as through the amortisation process.

(g) Trade and Other Receivables

Trade and other receivables, including amounts due from subsidiary, are classified and accounted for as loans and receivables under FRS 39. These are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less allowance for impairment.

An allowance is made for uncollectible amounts when there is objective evidence that the Company will not be able to collect the debt. Bad debts are written off when identified.

(h) Cash and Cash Equivalents

Cash and cash equivalents comprise cash balances and fixed deposits. Cash and short-term deposits carried in the balance sheets are classified and accounted for as loans and receivables under FRS 39.

(i) Trade and Other Payables

Trade and other payables, which are normally settled on 30-90 day terms, are recognised initially at fair value. Interest-bearing liabilities are recognised initially at fair value less attributable transaction costs.

Subsequent to initial recognition, trade and other payables and interest-bearing liabilities are stated at amortised cost with any difference between cost and redemption value being recognised in the income and expenditure account over the period of the borrowings on an effective interest basis.

Gains and losses are recognised in the profit and loss account when the liabilities are derecognised as well as through the amortisation process.
2. Summary of Significant Accounting Policies (cont’d)

(j) Derecognition of financial assets and liabilities

(a) Financial assets
A loan and receivable is derecognised where the contractual rights to receive cash flows from the asset have expired which usually coincides with receipt of payments for the asset.

On derecognition, the difference between the carrying amount and the sum of the consideration received is recognised in the profit and loss account.

(b) Financial liabilities
A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires.

(k) Provisions
Provisions are recognised when the Company has a present obligation (legal or constructive) where, as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Where the Company expects some or all of a provision to be reimbursed, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the profit and loss account net of any reimbursement.

If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as finance costs.

Provisions are reviewed at each balance sheet date and adjusted to reflect the current best estimate. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

(l) Income Tax
Income tax expense is determined on the basis of tax effect accounting, using the liability method and is applied to all temporary differences at the balance sheet date between the carrying amounts of assets and liabilities and the amounts used for tax purposes.

Deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilised. The carrying amount of a deferred tax asset is reviewed at each balance sheet date and reduced to the extent that is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of the deferred tax asset to be utilised.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates at the balance sheet date.

The Company has been registered as a Charity, under Charities Act, Cap. 37 with effect from 27 November 2002. The tax liability on the Company’s income is regulated by Section 13M of the Singapore Income Tax Act.
NOTES TO THE FINANCIAL STATEMENTS (cont’d)

2. Summary of Significant Accounting Policies (cont’d)

(m) Revenue Recognition

(i) Donation/Grant Income

Revenue is recorded as earned based on the performance requirements as defined in the respective agreements.

Grants received, which is designated for property, plant and equipment purchases is taken to deferred capital expenditure grant in the year of receipt. The deferred capital expenditure grant is amortised over the useful life of the property, plant and equipment by crediting to the income and expenditure account an amount so as to match the related depreciation expense. The deferred capital expenditure grant is credited into the income and expenditure account to match the related net book value of the property, plant and equipment disposed.

(ii) Sponsorships

Sponsorships which are designated for specific events are taken to a sponsorship fund account. Sponsorship income are recognised in the income and expenditure account when relevant expenditures are incurred. Net surplus or deficit are only taken to income and expenditure account when the relevant event is completed.

(iii) Interest Income

Interest income from bank deposits is recognised on an accrual basis.

(n) Employee Benefits

(i) Defined contribution plans

The Company makes contributions to the Central Provident Fund Scheme in Singapore, a defined contribution pension scheme. Obligations for contributions to defined contribution pension plans are recognised as an expense in the income and expenditure account as incurred.

(ii) Short-term compensated absences

Short-term compensated absences are recognized as a liability when they accrue to employees. The estimated liability for compensated absences is recognised for services rendered by employees up to balance sheet date.

The expected cost of employee benefits in the form of unutilised short-term compensated absences is recognised in the income and expenditure account.

(o) Foreign Currencies

Monetary assets and liabilities in foreign currencies are translated into Singapore dollars at rates of exchange approximate to those ruling at the balance sheet date. Transactions in foreign currencies are translated at rates ruling on transaction dates. Translation differences are included in the income and expenditure account.
NOTES TO THE FINANCIAL STATEMENTS (cont’d)

2. Summary of Significant Accounting Policies (cont’d)

(p) Operating Leases

Where the Company has the use of assets under operating leases, payments made under the leases are recognised in the income and expenditure account on a straight-line basis over the term of the lease.

3. Property, Plant and Equipment

<table>
<thead>
<tr>
<th></th>
<th>Computers</th>
<th>Medical and laboratory equipment</th>
<th>Office equipment</th>
<th>Furniture and fittings</th>
<th>Building improvements</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As at 1.4.2004</td>
<td>194,766</td>
<td>4,740,003</td>
<td>89,922</td>
<td>519,371</td>
<td>988,594</td>
<td>6,532,656</td>
</tr>
<tr>
<td>Additions</td>
<td>24,555</td>
<td>571,772</td>
<td>2,900</td>
<td>8,180</td>
<td>30,496</td>
<td>637,903</td>
</tr>
<tr>
<td>Disposals</td>
<td>(6,672)</td>
<td>(23,100)</td>
<td>(2,588)</td>
<td>-</td>
<td>-</td>
<td>(32,360)</td>
</tr>
<tr>
<td><strong>As at 31.3.2005</strong> and 1.4.2005</td>
<td>212,649</td>
<td>5,288,675</td>
<td>90,234</td>
<td>527,551</td>
<td>1,019,090</td>
<td>7,138,199</td>
</tr>
<tr>
<td>Additions</td>
<td>165,990</td>
<td>669,758</td>
<td>-</td>
<td>24,140</td>
<td>-</td>
<td>859,888</td>
</tr>
<tr>
<td>Disposals</td>
<td>(20,283)</td>
<td>(4,057)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(24,340)</td>
</tr>
<tr>
<td><strong>As at 31.3.2006</strong></td>
<td>358,356</td>
<td>5,958,433</td>
<td>86,177</td>
<td>551,691</td>
<td>1,019,090</td>
<td>7,973,747</td>
</tr>
</tbody>
</table>

| **Accumulated depreciation** | | | | | |           |
| As at 1.4.2004 | 133,137 | 1,969,418 | 63,440 | 365,456 | 198,505 | 2,729,956 |
| Charge for the period | 33,014 | 528,556 | 9,205 | 52,157 | 100,886 | 723,818 |
| Disposals | (4,668) | (22,434) | (2,588) | - | - | (29,690) |
| **As at 31.3.2005** and 1.4.2005 | 161,483 | 2,475,540 | 70,057 | 417,613 | 299,391 | 3,424,084 |
| Charge for the year | 41,330 | 522,618 | 5,967 | 61,270 | 101,909 | 733,094 |
| Disposals | (11,180) | - | (1,486) | - | - | (12,666) |
| **As at 31.3.2006** | 191,633 | 2,998,158 | 74,538 | 478,883 | 401,300 | 4,144,512 |

| **Carrying amount** | | | | | |           |
| As at 31.3.2006 | 166,723 | 2,960,275 | 11,639 | 72,808 | 617,790 | 3,829,235 |
| As at 31.3.2005 | 51,166 | 2,813,135 | 20,177 | 109,938 | 719,699 | 3,714,115 |
NOTES TO THE FINANCIAL STATEMENTS (cont’d)

4. Intangible assets

<table>
<thead>
<tr>
<th>Note</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At beginning of year</td>
<td>87,714</td>
<td>63,629</td>
</tr>
<tr>
<td>Additions</td>
<td>56,502</td>
<td>24,085</td>
</tr>
<tr>
<td>At end of year</td>
<td>144,216</td>
<td>87,714</td>
</tr>
<tr>
<td>Accumulated amortisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At beginning of year</td>
<td>47,332</td>
<td>25,595</td>
</tr>
<tr>
<td>Charge for the year</td>
<td>27,473</td>
<td>21,737</td>
</tr>
<tr>
<td>At end of year</td>
<td>74,805</td>
<td>47,332</td>
</tr>
<tr>
<td>Carrying amount</td>
<td>69,411</td>
<td>40,382</td>
</tr>
</tbody>
</table>

5. Cash and Bank Balances

Cash at bank balances earn interest at floating rates based on daily bank deposit rates ranging from 1% to 1.5% (2004: 0.625% to 0.683%) per annum.

6. Trade and Other Receivables

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits and receivables</td>
<td>671,010</td>
<td>1,652,530</td>
</tr>
<tr>
<td>Amounts due from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- immediate holding company (trade)</td>
<td>-</td>
<td>168,648</td>
</tr>
<tr>
<td>- pen-ultimate holding company (trade)</td>
<td>73,654</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>744,664</td>
<td>1,821,178</td>
</tr>
</tbody>
</table>
## 7. Trade and Other Payables

<table>
<thead>
<tr>
<th>Note</th>
<th>Trade payable</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>538,429</td>
<td>255,991</td>
</tr>
<tr>
<td>Accrued operating expense</td>
<td>233,961</td>
<td>171,641</td>
<td></td>
</tr>
<tr>
<td>Amounts due to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- immediate holding company (trade)</td>
<td>16,572</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>- penultimate holding company (non-trade)</td>
<td>9,873</td>
<td>3,070</td>
<td></td>
</tr>
<tr>
<td>- related corporations (trade)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other payables</td>
<td>580,473</td>
<td>1,194,061</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,379,308</td>
<td>1,625,185</td>
</tr>
</tbody>
</table>

## 8. Employee benefits

<table>
<thead>
<tr>
<th>Liability for short term accumulating compensated absences</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>84,280</td>
<td>89,601</td>
</tr>
</tbody>
</table>

## 9. Due to Penultimate Holding Company (non-trade)

The balance outstanding last year was unsecured, interest-free and was repaid during the year.

## 10. Deferred Capital Expenditure Grant

<table>
<thead>
<tr>
<th>At cost</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>8,081,741</td>
<td>7,223,013</td>
</tr>
</tbody>
</table>

Less:

<table>
<thead>
<tr>
<th>Accumulated amortisation</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 1 April</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amortisation for the year</td>
<td>753,601</td>
<td>745,220</td>
</tr>
<tr>
<td>Disposal</td>
<td>(12,666)</td>
<td>(29,690)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At 31 March</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>4,212,016</td>
<td>3,471,081</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>1,078,039</td>
<td>946,525</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-current</th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>2,791,686</td>
<td>2,805,407</td>
</tr>
</tbody>
</table>

|              | 3,869,725 | 3,751,932 |
NOTES TO THE FINANCIAL STATEMENTS (cont’d)

11. Other Payables

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount held on behalf of researchers</td>
<td>$49,110</td>
<td>$57,499</td>
</tr>
<tr>
<td>Donation funds</td>
<td>$110,254</td>
<td>$148,039</td>
</tr>
<tr>
<td>Research funds</td>
<td>$347,920</td>
<td>$859,077</td>
</tr>
<tr>
<td>Others</td>
<td>$73,189</td>
<td>$129,446</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$580,473</td>
<td>$1,194,061</td>
</tr>
</tbody>
</table>

12. Accumulated Fund

The Company is limited by guarantee and has no share capital. The accumulated fund represents the cumulative surplus of the Company.

13. NMRC Operating/Capital Expenditure Grants

The Company’s operation is funded primarily from grants from National Medical Research Council (“NMRC”).

14. Staff Cost

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages, salaries and bonuses *</td>
<td>$3,332,146</td>
<td>$2,856,865</td>
</tr>
<tr>
<td>Pension contributions</td>
<td>$249,194</td>
<td>$210,065</td>
</tr>
<tr>
<td>Other social expenses</td>
<td>$180,961</td>
<td>$196,980</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$3,762,301</td>
<td>$3,263,910</td>
</tr>
</tbody>
</table>

* This amount includes Director’s remuneration of $90,000 (2005: $90,000) and Key Management Personnel’s remuneration of $123,594 (2005: $131,796).

15. Surplus Before Tax

This is determined after charging/(crediting) the following:

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amortisation of deferred capital expenditure grant</td>
<td>(753,601)</td>
<td>(745,220)</td>
</tr>
<tr>
<td>Exchange (gain)/loss</td>
<td>(59)</td>
<td>1,783</td>
</tr>
<tr>
<td>Operating lease expense</td>
<td>10,559</td>
<td>10,396</td>
</tr>
<tr>
<td>Loss on disposal of property, plant and equipment</td>
<td>11,674</td>
<td>685</td>
</tr>
</tbody>
</table>
NOTES TO THE FINANCIAL STATEMENTS (cont’d)

16. Commitments

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital commitments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Contracted but not provided for</td>
<td>120,782</td>
<td></td>
</tr>
</tbody>
</table>

As at 31 March 2006, the Company had commitments for future minimum lease payments under non-cancelled leases as follows:

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Within 1 year</td>
<td>8,606</td>
<td>8,606</td>
</tr>
<tr>
<td>- After 1 year but within 5 years</td>
<td>24,873</td>
<td>32,363</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. Income Tax

The Company is a non-profit organisation registered with the Commissioner of Charities under the Charities Act. The tax liability on the Company’s income is regulated by Section 13M of the Singapore Income Tax Act. No provision for taxation has been made in the financial statements as the directors is of the opinion that the Company will be able to comply with the conditions of Section 13M2(b) of the Singapore Income Tax Act.

18. Related Party Transactions

Other than disclosed elsewhere in the financial statements, the transactions with related parties are as follows:

Sale of services
- Penultimate holding company | 63,908 | 5,098 |
- Immediate holding company | 317,811 | 331,320 |
- Related corporations | - | 2,236 |

Purchase of services
- Penultimate holding company | 8,436 | 5,500 |
- Immediate holding company | 439,358 | 617,951 |
- Related corporations | 81,226 | 38,098 |

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Company occupies space at the premises of its holding company. The rental rate of $489,611 per annum is waived by the holding company.
19. Financial Instruments

The Company's exposure to interest rate risk, credit risk and foreign exchange risk are insignificant. The main risks arising from the Company's financial instruments is liquidity risk. The policy for managing this risk is as follows:

**Liquidity Risk**

The Company’s operation is funded primarily from grants from National Medical Research Council. As such, the Company’s exposure to liquidity risk is minimised.

**Fair Values**

As the Company’s financial assets and liabilities comprise cash on hand, other accounts receivable and trade and other payables which have relatively short-maturities, the carrying amount of these financial instruments approximates their fair value.