

# SingVision™

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A PUBLICATION OF SINGAPORE NATIONAL EYE CENTRE

2012/2013

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Singapore National  
Eye Centre

SingHealth

[www.snec.com.sg](http://www.snec.com.sg)



**Sitting (from left to right)**

Mrs Melanie Chew, Mr Tony Chew (Chairman, Duke-NUS Graduate Medical School), Professor Ivy Ng (Group CEO, SingHealth), Professor Donald Tan (Medical Director, SNEC and Chairman, SERI), President Tony Tan Keng Yam, First Lady Mrs Mary Tan, Professor Wong Tien Yin (Executive Director, SERI), Professor Tan Chorh Chuan (President, National University of Singapore), Professor Ang Chong Lye (CEO, Singapore General Hospital), Mrs Ang Chong Lye

**Standing (from left to right)**

Mr Wong Yew Meng (SERI Board Member), Dr Edwin Low (Group Director, Strategic Human Resource, SingHealth), Adjunct Associate Professor Lee Shu Yen (Organising Chairperson), Ms Charity Wai (Chief Operating Officer, SNEC), Professor Aung Tin (Deputy Executive Director, SERI), Ms Sharmila Kannan (Director, Corporate Affairs and Research Admin, SERI), Professor Roger Beuerman (Senior Scientific Director, SERI), Adjunct Associate Professor Eranga Vithana (Associate Director, Basic and Experimental Sciences, SERI)

# THE EYEBALL

A charitable event in support of a cure for blindness and eye diseases



## SERI Receives A Boost of \$460,000 for Eye Research



Guest-of-Honour, President Tony Tan Keng Yam (centre) received the token of appreciation from Professor Donald Tan (left) and Professor Wong Tien Yin.

The year 2012 was a landmark year for the Singapore Eye Research Institute (SERI) as it celebrated 15 years of successful eye research. In conjunction, a spectacular fundraising gala dinner - "The Eye Ball" - was held on 24 October 2012 at the Shangri-La Hotel to thank its donors for their immeasurable support and generous contributions.

A total of \$460,000 was raised from the charity gala. The funds will be channelled towards SERI's sustained efforts in eye research with the ultimate goal of identifying and developing novel and innovative strategies for early detection of eye diseases and the augmentation of current treatments.

SERI does more than 90 per cent of the eye research in Singapore, and its prolific output has catapulted Singapore into the global top spot in the field (with the most ophthalmic publications per capita), ahead of heavyweight eye research centres in the United States and Britain.

Up to December 2012, SERI conducted more than 850 eye-related studies, received over US\$100 million in competitive grants, published more than 1,400 scientific papers, received more than 200 national and international prizes and registered 61 patents for its inventions.





# An Eye on Research

## \$25 Million Grant for Eye Surgery and Innovative Technologies

Professor Donald Tan and his team comprising Professor Roger Beuerman, Professor Aung Tin, Adjunct Associate Professor Jodhbir Mehta and Adjunct Associate Professor Tina Wong have been awarded the TCR Flagship Programme grant, worth \$25 million over five years, to run the “Eye Surgery and Innovative Technologies (EyeSITE)” programme.

With this \$25 million grant in translational clinical research, researchers and doctors at the Singapore Eye Research Institute and Singapore National Eye Centre will be able to further extend new research frontiers in ophthalmology.

The EyeSITE programme, through various research projects, aims to provide new clinical therapies and diagnostic applications to aid in alleviating ocular morbidity from major eye diseases, including corneal disease, infection, glaucoma, refractive errors and retinal disorders. If successful, these research projects will result in better health outcomes for ocular conditions, improve medical practice, and may also provide significant economic benefits to Singapore.

2 | TOP STORIES THE BUSINESS TIMES WEEKEND SATURDAY/SUNDAY, NOVEMBER 10-11, 2012

### S'pore places bet on personalised drugs

Medicines are matched to patients' biomarkers in promising new field

My Lynk Kiat, [lynk@sp.com.sg](mailto:lynk@sp.com.sg)

EVEN as pharmaceutical giant Novartis remains focused on producing blockbuster drugs in the next few years, Singapore's biomedical researchers are not only the first step and one part of Singapore's larger aim to roll out a national standard medicine framework. Like what the United Kingdom of France started two to three years ago.

A new working group involving several medicine leaders at the National Medical Research Council was set up about six months ago, its chair Stephen Smith told BT.

In Smith, the vice president (research) at the Nanyang Technological University, said the first

They can then either participate in enacting the clinical trials based on their biomarkers or be the basis for future research as patients if they have yet undergone any tests, said Patrick Tan, Public Health Programme lead and the group leader of the Cancer Institute of Singapore.

Personalised medicine is changing the business and investment model for pharmaceutical companies. Many targeted therapies reduce the need for block-

#### Anatomy of funding

A\*Star Funds eight biomedical science research programmes

Project	Funding (Million SGD)
Public (Personalised) OMC Letter for Advanced Research and Training (PACT)	20
Characterising and tracking circulating tumour cells	12.3
Computational diagnosis of cancer	12.4
Genetic orphan diseases	12.7
<b>Subtotal</b>	<b>57.8</b>
Eye Surgery and Innovative Technologies (EyeSITE)	25
Singapore Genetic Consortium	25
Experimental therapies in heart failure	9
Novel small cell lung cancer	9
<b>Subtotal</b>	<b>68</b>
<b>Total</b>	<b>125.8</b>

THE NEW PAPER • 14 Saturday, November 10 2012

### Scientists get \$25m grant to study how removed corneal tissue can be re-implanted to correct far-sightedness

## An eye for an eye

REPORT BY JENNIFER TAN [jtan@sp.com.sg](mailto:jtan@sp.com.sg)

SINGAPORE has found a way to reverse age-related eye changes.

A piece of excised tissue of human removed cornea after a cataract surgery can be re-implanted into the eye 20 to 30 years later to stop degeneration of far-sightedness.

"We have shown in animal models that the lens can be shaped and re-implanted back into the cornea, restoring their look-up of vision," said Professor Donald Tan, who is the chairman of the Singapore Eye Research Institute.

"The technique is a second vision to the eye and does not require any surgery."

*"We can shape and reshape, and safely implant donated lenticules into the eyes of others without worrying"*

### Million-dollar project grants

**PROJECT:** Holding the marriage together

**RECIPIENT:** Singapore Genetic Consortium

**GRANT:** \$25 million for five years

The programme aims to identify diagnostic biomarkers to help develop cost-effective screening, predict patient survival and drug responses, and understand the formation of the cancer.

聯合早報 星期六 2012年11月10日

### 近视矫正术所切除组织可保存备用

## 老花眼日后或能“自救”

新加坡眼疾研究中心 (SERC) 研究团队发现，近视矫正手术所切除的组织，可以重新植入眼内，以矫正老花眼。这项研究为近视患者提供了一种新的“自救”方法。

近视矫正手术通常会切除一部分角膜组织。研究团队发现，这些被切除的组织在体外培养一段时间后，可以重新植入眼内，起到矫正老花眼的作用。这一发现为近视患者提供了一种新的“自救”方法，即在年轻时进行近视矫正手术，并在年老时利用保存下来的组织进行老花眼矫正。

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Photo courtesy of Singapore Press Holdings

## SNEC Eye Doctor Only Asian to win Bayer Grant

Dr Gemmy Cheung, a consultant ophthalmologist from Singapore National Eye Centre's (SNEC) Vitreo-Retinal Service, won a US\$25,000 (S\$30,860) international research grant for a study that will pave the way to early and more targeted diagnosis of a major cause of blindness in Singapore.

She is the only Asian to win the inaugural Global Ophthalmology Awards Programme, launched by Bayer HealthCare. There were 61 applicants from around the world. The other winners were from Italy, the United States, China and the Netherlands.

Age-related Macular Degeneration (AMD), an eye disease that progressively destroys a person's central vision, is the second most common cause of blindness here - after cataracts - affecting those aged 40 and above.

SNEC treats about 10 new cases of AMD each month, of which about half belong to a sub-type - Polypoidal Choroidal Vasculopathy (PCV) - that is common among Asians. The current method for diagnosing PCV involves an eye test that is costly, time consuming, and causes side effects in a small group of patients. It is not available at all eye centres, so the PCV sub-type sometimes goes undetected.

For her study, Dr Gemmy Cheung will look at identifying clinical signs common in patients suffering from PCV. With the results of her study, she will be able to develop a five-step analysis, which will be ready in about a year's time, to pinpoint cases that require the eye test for PCV.

Dr Cheung said that low-risk PCV patients would thus be able to avoid extra tests, while high-risk cases are quickly referred for the appropriate investigation. This is important because AMD, unlike cataracts, is an irreversible form of blindness. About two years after the condition takes hold, blindness occurs. Early detection and treatment, therefore, are vital. She added that many elderly people expect their vision to be not so good at their age, and just accept it, without seeking any treatment. There is room to improve in terms of AMD awareness. About 20 per cent of patients are already at an advanced stage when they see a doctor.



(Refer to Page 18 for 'What's Your EyeQ' on AMD)

# 'Live in China to understand its culture'

Doing this will make Singaporeans truly bicultural, says Lee Kuan Yew

By ROBIN CHAN  
POLITICAL CORRESPONDENT

THE man who has played a key role in growing China-Singapore ties yesterday stressed the need to appreciate how China's culture differs from Singapore's.

He urged Singaporeans to live in China for a long time in order to really understand Chinese culture and become truly bicultural.

"If we believe that because we speak Chinese, we understand what they speak, therefore we understand their culture, that is wrong," said former prime minister Lee Kuan Yew, speaking at the

Business China Awards dinner at the Resorts World Convention Centre. "We are westernised, China is not westernised. That makes a very big difference. For us, we follow the rule of law. For them, an agreement is the beginning of a long friendship, in which you make adjustments as you go along, considering what is fair."

Mr Lee is the patron of the organisation which he launched in 2007 with Chinese Premier Wen Jiabao to promote stronger cultural and economic ties between Singapore and China, and encourage of bicultural Singaporeans engage China.



(From left) Dr Ian Lai Yong, a doctor who inspired Dr Loh to volunteer in Yunnan; Dr Loh; Mr Chua Tshian Poh, chairman of Business China; Prof Lim M. Lee; and Mr Lim Han Leong, president and chief executive of CapitalLand, at the Business China Awards dinner yesterday. ST PHOTO: DESMOND HUI

He said he learnt about the differences in culture through initial misunderstandings during the development of the Suzhou Industrial Park and Tianjin Eco-City, Singapore eventually adjusted to the Chinese way of doing business, he

also given to CapitalLand Group which has developed more than 120 projects in 40 Chinese cities.

The Young Achiever Award went to Dr Loh Cheng, 37. It moved with his family to Yunnan 4½ years ago to offer medical education and clinical services to the underprivileged.

He connected international humanitarian groups with the local Chinese authorities to ensure the international aid was given directly to those who needed it most.

Dr Loh said he was inspired by a desire to give back to society and to gain new experience, as well as a mentor who had done similar work in China.

"I wanted to do something that was meaningful... Having a small part in the education of physicians in Yunnan was also why I decided to make the move," he said

## Doc honoured for helping to fight blindness in China

By ESTHER TEO

A SINGAPORE doctor whose efforts helped nearly 500,000 eye patients in China beat blindness has been honoured by a body set up to boost Singapore-China ties.

Professor Arthur Lim's keen philanthropic contributions won him the Excellence Award at the Business China Awards yesterday.

Prof Lim, 74, has been working to eradicate cataract blindness in China since 1986.

Back then, China had about four million people with cataract problems and faced a lack of doctors to perform the operations.

But under Prof Lim's leadership, more than 5,000 local specialists were trained in 10 eye centres, which he helped establish across the country. This helped nearly half a million eye patients,

# SNEC Founding Director Received Business China Excellence 2012 Award

Professor Arthur Lim, the founding director (1989-1999) of the Singapore National Eye Centre (SNEC) and founding chairman (1997-2006) of the Singapore Eye Research Institute (SERI) has been honoured for helping to fight blindness in China.

Advocating the use of a modern method of cataract extraction with intraocular implant, he has helped restore the vision of about one million blind cataract patients in China since 1986.

"With modern surgery, a blind person can have his vision restored within hours. China is a large country, with more than a million blind, mostly because of cataract. It was clear that performing operations for blind cataract patients was the way to go," says Professor Lim.

Back then, China had about four million people with cataract problems and faced a lack of doctors to perform the operations. But under his leadership, more than 5,000 local specialists were trained in 10 eye centres, which he helped establish across the country.

Before his venture into China, Professor Lim was widely acknowledged by his peers as the father of Ophthalmology in South-east Asia and was a mentor and icon to eye surgeons all over the world.

### Bridging ties between Singapore and China

For many years, Professor Lim has played a key role in promoting and strengthening bilateral ties between China and Singapore, contributing to the two countries' healthcare landscape. He has personally performed pro bono surgeries and donated generously to the eye centres in China.

In 1997, he donated US\$660,000 (S\$806,000) to the Xiamen Eye Centre, and helped to raise another US\$220,000. He also helped bring about another three eye centres in Shandong, Gansu and Ningxia in China by providing medical opinions and lending assistance in fundraising.

For his contributions, Professor Lim was accorded the Business China Excellence 2012 Award. The award is conferred on an outstanding Singapore citizen, permanent resident or resident of Greater China who demonstrates exceptional vision and leadership in the development and sustained growth of a business or profession in China or Singapore respectively. The candidate must also be an exemplary role model to other Singaporeans in the learning and appreciating of the Chinese language and culture.

Professor Lim's various accolades include the Public Service Star and Public Service Star Bar by the Singapore Government in 1995, and the Friendship Award by the Chinese government in 1996. He was also made honorary citizen of Tianjin and Xiamen by the Chinese government in 1990.

Professor Lim is not resting on his laurels. He hopes to continue to get the leaders of both countries to meet and seek out areas of cooperation. There is potential for collaboration on many levels, not just in eye surgery and eye care, but in other industries such as education and commerce, he adds.



# SNEC ATTAINS JCI RE-ACCREDITATION

In 2009, Singapore National Eye Centre (SNEC) was recognised by the Joint Commission International (JCI) for our safe and quality patient care. After months of preparation and a rigorous 4-day survey process from 4 to 7 December 2012, we attained our JCI re-accreditation. This achievement is not just a validation of our clinical standards, it is also a reflection of our emphasis on continuous improvement to achieve the highest standard of quality and patient safety.



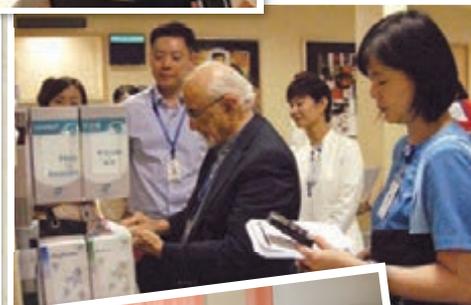
“ The whole team has done us proud. Your hard work in the past months has paid off with our successful JCI re-accreditation. Our thanks to each and everyone - from our nurses, doctors, allied health team and to the administrative team who supported us all the way. Our Operations team, security personnel and the housekeeping crew also deserve special mention for the work behind the scenes, especially after hours. It leaves me only to thank the leadership for their support of the efforts of the JCI Working Committee. ”



~ Dr Ian Yeo, Advisor, SNEC JCI Working Committee ~

## What is Joint Commission International?

Joint Commission International (JCI) accreditation is internationally recognised as a premier credential for hospitals and other medical institutions. It is an international mark and endorsement for quality patient care and safety, and organisation management. The JCI accreditation programme initiated in 1999 was design to evaluate all the functions of acute care hospitals and medical centres.



## SNEC paper published in The Joint Commission Journal on Quality and Patient Safety

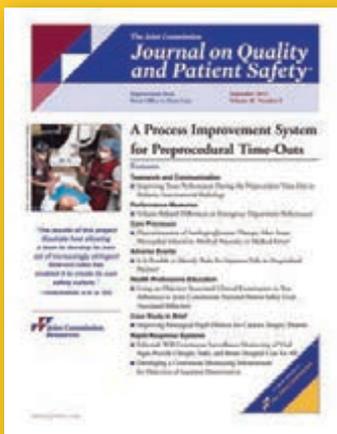
Case Study in Brief

### Improving Presurgical Pupil Dilation for Cataract Surgery Patients

By Loh Huey Peng, RN, MHA; Allan Fong, MBBS, MMED, MRCS, FRCS, MRCO; Chee Soon Phaik, FRCO, FRCS, FRCS, MMED; Tian Pei Hong, BHSc, RN; Neo Siew Hoon, RN; Claris Lim Ting Xuan; Kitty Yick, RN; Angie Ng

*During cataract surgery, the patient's pupil must be sufficiently dilated for the ophthalmologist to gain surgical access to the cataract. Insufficient pupil dilation poses a common surgical challenge to ophthalmologists. A miotic (poorly dilated) pupil can make a routine procedure difficult or further complicate a difficult case. Poor pupil dilation is significantly associated with an increased probability of surgical complications, such as posterior capsule rupture and vitreous loss. 40 per cent of cataract patients' pupils were not adequately dilated (at least 7mm) before surgery. The SNEC team initiated a quality project with an aim to address the issue.*

*Achievement: A measurement tool (consisting of a pupil dilation pen torch, dilation monitoring sheet and coloured stickers) has been introduced to help nurses identify cataract patients who require dilation monitoring. Since the introduction, the percentage of cataract patients who achieved sufficient pupil dilation has been consistently above 80 per cent.*



# SNEC shared stage with leading eye centres at the ASEAN Ophthalmology Forum 2012



Ms Charity Wai (fourth from right) with key officials from Vietnam Health Ministry and foreign delegates

A line-up of leading eye experts shared their insights on global integration and significance of technology in ophthalmology to a crowded room of Vietnamese and overseas delegates during the ASEAN Ophthalmology Forum held in Vietnam, Ho Chi Minh City, on 23 and 24 November 2012.

The two-day event, held at the Nikko Hotel Saigon, received much support with participation and key representation from Vietnam Health Ministry including Associate Professor Tran Thi Trung Chien (Former Minister for Health); Professor Dang Huu (Minister, Ministry of Science, Technology and Environment); Dr Luong Ngoc Khue (Director, Department of Medical Service Administration, Ministry of Health); and Dr Tran Thi Phuong Thu (President, Ho Chi Minh City Ophthalmological Society).

The interactive forum featured a series of podium presentations and case reports that covered a broad spectrum of strategic, operational and international hospital management and clinical topics.

Ms Charity Wai, Chief Operating Officer of SNEC, took stage with her presentation, "Escalating Cost in Healthcare: Threats or Opportunities," where she shared on the impact of ageing population on technology and other aspects of healthcare. The audience at the public forums also benefitted from SNEC doctors' talks on new laser vision correction technique, advances in cataract surgery and management of retinal diseases.

The event congregated more than 220 doctors and 400 international guests from Vietnam, Singapore, Indonesia, Malaysia, Korea, Netherlands, India, Thailand and Japan. The event was organised by Asean Association of Eye Hospitals (AAEH) and Cao Thang Eye Hospital, in collaboration with the World Association of Eye Hospitals (WAEH) in which SNEC is a founding member.



"The Ageing Eye" presentation by Dr Ranjana Mathur, Senior Consultant, Vitreo-Retina Service at SNEC



Dr Ti Seng Ei, Senior Consultant, Cataract and Cornea Service at SNEC, addressing the floor during the Q&A session, after her presentation on "Advances in Cataract Surgery: Using Femtosecond Laser for Better Precision and Outcomes"



Dr Mohamad Rosman (centre), Consultant, Refractive Surgery at SNEC, chairing the Refractive session after his talk on "SMILE - Single Laser, Flapless LASIK: New Alternative to LASIK"



A roomful of audience at the Hospital Management Programme



## SHARING AND LEARNING FROM BEST PRACTICES

Singapore National Eye Centre (SNEC) aspires to provide eye care services of the highest quality to patients. To accelerate our efforts of transforming eye care delivery, we continue to reach out to the international arena, build relationships and host visits from some of the world's best in medicine to share our best practices, successes and challenges.



On 7 November 2012, the Singapore Eye Bank (SEB) welcomed a nine-member delegation from the **Hong Kong Department of Health**. With an interest on tissue processing for therapeutic purposes, the delegation led by Dr Constance Chan, Director of Health, visited our eye bank facility to better understand our procurement, evaluation, storage and distribution of ocular tissue for corneal transplantation. The group of senior officers was hosted by Mr Howard Yu Cajucom-Uy, SEB Manager, who presented and introduced SNEC's highly successful corneal transplant programme to the visitors.



A 60-member team from the **Metta International Eye Center and Mettapracharak Hospital and Eye Institute** visited SNEC on 23 October 2012. The team led by its Director, Dr Pannet Pangputhipong, and comprised the management and staff from medical, nursing, paramedical and administrative departments, came with the objective to learn and share their Joint Commission International (JCI) journey and service quality programmes. Administratively part of the Department of Medical Services at the Ministry of Public Health in Thailand, the Mettapracharak Hospital and Eye Institute has recently been accredited with JCI in October 2012. The visit, hosted by various key administrative heads from SNEC, offered a great platform for both institutions to present and exchange knowledge and best practices in the areas of quality, service and excellence.



# Community Outreach



## National Eye Care Day 2012

**When:**  
10 November 2012 (Saturday)

**Where:**  
SNEC Balestier Branch

**Who Attended:**  
More than 1,500 people received eye screening

## World Diabetes Day 2012 *(organised jointly with Diabetic Society of Singapore)*

**When:**  
11 November 2012 (Sunday)

**Where:**  
NUSS – The Graduate Club

**Who attended:**  
- Guest-of-Honour  
Mr Gan Kim Yong, Minister for Health  
- More than 500 people



An integral part of Singapore National Eye Centre's (SNEC) regular activities is its comprehensive community outreach programmes which take eye care services to the doorstep of the community. In the year 2012, SNEC doctors, nurses, optometrists, allied health and administrative staff volunteered and performed eye screenings for more than 2,500 patients nationwide. Aimed at increasing eye health awareness among the public, these eye screenings served to educate the local community on the importance of regular eye checks, and offered treatment options to those who have been diagnosed with eye diseases.



**Community Eye Screening**

**When:**  
14 October 2012 (Sunday)

**Where:**  
Hwi Yoh Community Club  
*(in conjunction with the launch of Jalan Kayu's Care & Share Programme)*

**Who attended:**  
- **Guest-of-Honour**  
Prime Minister Lee Hsien Loong  
- More than 150 residents in the North-East area received eye screening

**Lions World Sight Day 2012**  
*(in collaboration with Lions SaveSight Centre and South West CDC)*

**When:**  
7 October 2012 (Sunday)

**Where:**  
Jurong Spring Community Club

**Who attended:**  
- **Guest-of-Honour**  
Dr Amy Khor, Minister of State for Manpower and Health, and Mayor, South West District  
- More than 500 residents in the South-West area attended eye screening and educational talks



# See The World In New Light

Lisa Ong, a low-vision optometrist at the Singapore National Eye Centre (SNEC) sees many patients in her line of work but reminds herself to be patient with them.

Just before this interview, she had encountered an elderly patient during a clinic session. Frustrated that he had lost most of his vision to age-related macular degeneration – an irreversible medical condition that results in loss of central vision – the 70-year-old man had been dismissive of Lisa’s advice. Not only had he lost his vision, he had also lost his self-esteem, as well as with his job as a driver.

“The uncle asked me why I was wasting his time when every optician he had seen said his vision was a gone-case... He wasn’t being rude to me. He was simply angry with his condition,” said Lisa, who has 14 years of experience in optometry.

A principal optometrist at SNEC’s Low Vision and Optometry Service, Lisa counsels and rehabilitates patients who are visually impaired to improve their quality of life.

While many of these patients, both young and old, still retain some usable vision, their poor eye sight can no longer be corrected with glasses. Hence, any remaining vision they have will need to be maximised.

One of the toughest challenges of Lisa’s job is dealing with patients’ expectations when they are still in the denial stage.

“Often, these newly diagnosed patients are sent to me by the doctors for rehabilitation and education. They come to me with high expectations, thinking a pair of glasses will give them back their vision.

“I’m here to help them understand their condition and offer them practical options to optimise their remaining vision,” she said.

By using eye exercises and specially prescribed optical aids such as handheld telescopes and magnifiers, Lisa introduces a whole new world to her patients who may have trouble recognising faces, reading or even simply getting around because of their limited vision.

Holding a handheld monocular, which is useful for people who have limited peripheral vision to expand their visual field and magnify distant objects, Lisa said: “You may not appreciate this device because you enjoy a full range of vision, but many of my patients gasp in astonishment and happiness when they are first introduced to it. It is such a lifesaver for them. With optical aids like these, they feel less handicapped.”

Lisa previously worked as an optometrist in the retail sector but was inspired to help people with vision problems on a “more personal level”. She joined SNEC in 2001 and began working with low-vision patients in 2007.

Last year, she further sharpened her knowledge in low-vision care after undergoing a four-month training programme at the University of California Berkeley, which was jointly sponsored by SNEC and SingHealth.

“Physical disability is easily recognisable but many people with vision problem look perfectly normal. No one can tell they are having vision problems until something happens, such as when they fall or accidentally bump into people and get into trouble.

“My hope is for society to be more tolerant and understanding of what people with low vision are going through,” she said.

# Start The New Year Afresh

Usher in 2013  
with ReLEx®  
smile and see the  
world with  
"brand new eyes"

The New Year is always a good time to refresh your outlook on life, make new resolutions and set new goals. Perhaps you have been wanting to travel around the world to enrich your life with diverse cultures and experiences, but find the weather transitions between countries and dry eye conditions caused by long haul flights a hassle, especially when you have to deal with cumbersome glasses and contact lenses. The good news is, such inconveniences are now a thing of the past with laser vision correction. Procedures like LASIK, a type of refractive surgery for the correction of myopia, can help give new freedom if you have imperfect vision.

Recent technological advancements have led to the introduction of a new technique of laser vision correction at the Singapore National Eye Centre (SNEC). Known as ReLEx® smile, the procedure corrects your vision just as effectively. Unlike LASIK which creates a corneal flap during the two-laser procedure and vaporises the corneal tissue to correct vision, ReLEx® smile is performed without creating a flap in the cornea and uses only one laser for the entire procedure. And instead of vaporising corneal tissue, the new generation laser (the femtosecond laser) used in ReLEx® smile simply removes a small piece of corneal tissue called a lenticule to correct the underlying short-sightedness and astigmatism. The corneal tissue is extracted through a small keyhole incision (about 2.5 to 4 mm only). Due to the smaller wound by minimally invasive surgery, ReLEx® smile results in a much stronger eye and less immediate postoperative discomfort and tearing.

As with any surgery, an initial evaluation is required to determine if ReLEx® smile is the procedure of choice for you. Your eligibility will depend on the amount and type of refractive error, the curvature and thickness of the cornea and a number of other factors. You should talk to your doctor about your questions and concerns. He or she can explain how the surgery might benefit you and help put the risks in perspective.

So as you bid farewell to the old year, think how great it'll feel to stride confidently into the new one, free from cumbersome glasses or contact lenses! Call the SingLASIK Centre at 6227 7266 or 6322 8891 to make an appointment. For more details, check out [www.singlasik.com.sg](http://www.singlasik.com.sg).

#### Benefits of ReLEx® smile

- No flap complications, as no corneal flap is created during surgery. Your eye will be less susceptible to trauma.
- Removes a small piece of corneal tissue called a lenticule through a small keyhole incision.
- Single-step, one laser procedure. Takes about 25 minutes for both eyes.

# SNEC strikes Gold at the Singapore Health Award 2012



At the recent Singapore HEALTH Awards 2012, Singapore National Eye Centre (SNEC) bagged a Gold Award for its dedicated workplace health and wellness activities.

Presented by the Health Promotion Board, the Singapore HEALTH (Helping Employees Achieve Life-Time Health) Award gives national recognition to organisations with commendable Workplace Health Promotion (WHP) programmes.

This is SNEC's seventh consecutive win at the biennial awards, having previously won bronze in 2002 and Gold since 2005.

Over the years, we have made significant progress in creating a healthy work environment and promoting work-life balance in SNEC. Our Recreation Club & Healthy Lifestyle Committee has initiated numerous wellness activities from marathons, futsal, brisk walking and bowling to social outings to Sentosa, Universal Studios Singapore, ArtScience Museum as well family getaways to Malaysia. We also organised talks and workshops to enrich our employees' minds, and catered healthy and nutritious foods at appropriate events.

## SNEC's Gift of Love

The SNEC President's Challenge 2012 Committee, under the chairmanship of Dr Marcus Ang, raised a total of more than \$21,000 for the needy and the underprivileged!

From nurses to allied health staff, doctors to administrative personnel, the SNEC/SERI family clearly demonstrated unity of spirit as everyone came together to raise funds for beneficiaries including Bright Vision Hospital, Life Community Services Society and St John's Home for the Aged. The five-month fundraising efforts which included activities such as charity bazaars and SNEC Oktoberfest & Beer Challenge 2012 had strengthened the bonding amongst our staff as we worked towards a common goal.



Staff Nurse Vivian Leo (holding the trophy) celebrated the achievement with Nurse Manager Ms Nancy Liew (left), Deputy Director of Nursing Ms Margaret Tan and Nurse Clinician Ms Anita Thambirajah (right)

## *Nursing Debate Team Brings Home Champion Trophy*

The Nursing Debate Team from Singapore National Eye Centre (SNEC), Singapore General Hospital (SGH) and KK Women's and Children's Hospital (KKH) emerged as the Champion Team amongst all SingHealth institutions and hospitals at the SingHealth Nursing Debate & Best Speech Contest on 12 October 2012. Staff Nurse Vivian Leo from SNEC's SingLASIK Centre was part of the four-member team who participated with the debate topic on "Physical Restraints Should Be Banned". The debate is held every year with an objective to expand the understanding and use of research-based evidence to produce the best patient outcomes.

# Two Eyes, Two Sizes

## Is this normal?

Living a healthy lifestyle and getting enough sleep are important. But they will not be able to erase the signs of ageing and hereditary factors that impact the appearance of the skin around your eyes. You may feel good on the inside but physical signs such as drooping eyelids and bulging eyes may make you appear tired, sad or even angry. Such symptoms can be an indication of an eye condition. Find out more.

### Droopy Eyelid (Ptosis)

Ptosis is a drooping of the upper eyelids. You may find it more and more difficult to keep your eyes open, or you may feel eye strain and eyebrow ache from the increased effort to raise the lids, or fatigue when reading. In severe ptosis, it may be necessary to tilt your head backward in order to see from under the eyelid. Your family and friends may also notice that you have a constantly 'tired' appearance.

#### Acquired Ptosis



#### Congenital Ptosis



Ptosis can affect one or both eyes. It may be present at birth (congenital), or it may develop later in life (acquired). Congenital ptosis is usually a result of maldevelopment of the levator muscle responsible for the lifting of the upper lid. Acquired ptosis has several causes. Amongst them, the most common cause is aponeurotic ptosis, which is the stretching of the levator muscle, due to the ageing process. It is also not uncommon to develop this type of ptosis after eye surgery or after contact lens wear. Other causes of ptosis include third cranial nerve palsy and neurological muscular disorders such as myasthenia and muscle dystrophies.

The type of treatment available depends on the cause of ptosis. Aponeurotic ptosis can frequently be repaired surgically.

Surgery is usually performed under local anaesthesia. The main goal of surgery is to elevate the upper eyelid to permit better vision. At the same time, the surgeon aims to achieve a reasonable amount of symmetry. Good to excellent results can be achieved although perfect symmetry may not always be obtained.

Congenital ptosis is different from acquired ptosis in that the surgeon has to deal with an abnormal muscle. When operating on an abnormal muscle, it is not always possible to achieve complete symmetry of both lid positions and function after surgery. Patients with congenital ptosis may still have a drooping lid on up-gaze and the white of the eye (sclera) will become visible on down-gaze. There may be inadequate lid closure during sleep.

Congenital ptosis is usually repaired in childhood if it is severe and obstructs vision. If mild, it can be repaired either in later childhood or early adulthood.

## Thyroid Eye Disease

Thyroid eye disease is an eye condition related to thyroid disease. Thyroid hormones produced by the thyroid gland in the neck regulate metabolism in the body. People with excessive thyroid hormones (hyperthyroidism) can develop eye diseases.

The disease is more common in women. Although often associated with hyperthyroidism, thyroid eye disease may occur in patients with normal or low thyroid hormone levels. The symptoms include dry eyes, watery eyes, red eyes, bulging eyes, a 'staring' appearance, double vision (diplopia), difficulty closing the eyes, and problems with vision.

**Thyroid Eye Disease**



The most significant, but rare, complication of thyroid disease is loss of vision due to compression of the optic nerve by swollen tissues around the eye. Swelling of the orbital tissues can cause the eye to bulge outwards and limit the eye's ability to close the eyelids, exposing the front surface of the eye and causing irritation and damage to the cornea. Patients can also suffer from double vision due to marked swelling and stiffening of eye muscles.

It is common for thyroid eye disease to fluctuate within the first one to two years of the disease. Beyond this time, the disease tends to stabilise. Medical therapy (immunosuppression and radiotherapy) are more effective in the active phase of the disease. Surgical treatment is usually reserved for patients in the inactive phase. It is important for you to be seen and treated by a doctor for the underlying thyroid disease throughout this period. Although thyroid eye disease tends to improve with good thyroid hormone control, this is not always the case, and consultation with an eye doctor is necessary.

Tear substitutes and lubricants help to protect the surface of the eye from drying. Sleeping on extra pillows helps to reduce swelling around the eyes. Double vision can be troublesome if it affects straightforward and down-looking positions (as in reading). Special lenses called prisms may relieve this.

Your eye doctor will advise you on the treatment for thyroid eye disease. Steroids are used in selected cases. Given orally, steroids can cause many side effects when used over a long period of time. These include weight gain, gastric symptoms and bleeding, aggravation of diabetes and high blood pressure and decreased resistance to infection. Where possible, intravenous steroids are given instead. Steroid therapy may also be combined with the use of other immunosuppressive drugs.

Radiation is an effective way of reducing the swelling of tissue around the eye and relieving compression of the optic nerve. The therapeutic dose used is low and is usually not associated with significant adverse effects.

When vision is threatened, early lid or orbital surgery may be necessary. Surgical rehabilitation is usually staged with orbital decompression surgery to reduce proptosis, followed by squint and eyelid surgeries to eliminate double vision and exposure respectively.

If you think you may have ptosis or thyroid eye disease, call 6227 7266 to make an appointment to see our eye doctor.



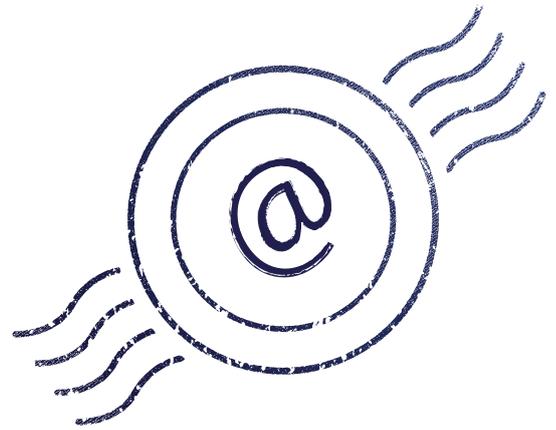
**Dr Audrey Looi**

Head and Senior Consultant  
Oculoplastic Service

# WHAT'S YOUR EYEQ?

Do you have a boggling eye condition? Or some burning questions related to your eye health?

Email [feedback@sneec.com.sg](mailto:feedback@sneec.com.sg) with your full name, using 'What's Your EyeQ?' as the subject header, and we will get your questions answered.



If you have AMD, you may experience one or more of these symptoms:

- Blurring of central vision (may be gradual or rapid onset)
- Shadows or missing areas of vision
- Distorted vision e.g. a grid of straight lines appears wavy and parts of the grid appear blank
- Problems discerning colours, specifically dark colours from other dark colours and light colours from other light colours
- Slow recovery of visual function after exposure to bright light
- Loss of contrast sensitivity (ability to tell different levels of brightness apart)

AMD occurs in 'dry' and 'wet' forms. 90 per cent of AMD patients suffer from the dry form. Dry AMD results in slow progressive loss of central vision. The condition develops as the light-sensitive cells in the macula slowly break down with age.

In wet AMD, abnormal blood vessel growth in the eye leads to the leaking of blood and proteins into the macula, leading to subsequent vision loss. The wet form commonly results in advance visual loss within a short period of time.

## Q How can AMD be treated?

Treatment options for wet AMD:

- **Laser photocoagulation.** A surgical procedure involving the application of a hot laser.
- **Photodynamic therapy with verteporfin.** This method uses a non-thermal laser together with an intravenous drug to seal and halt or slow the progression of the condition.
- **Drugs.** Macugen and Lucentis are examples of drugs delivered into the eye through injections to block the growth of the abnormal blood vessels.

There is no treatment for dry AMD although magnifiers can help with reading.

## Q My doctor told me that I have age-related macular degeneration. Will I go blind?

Age-related macular degeneration (AMD) is a chronic irreversible medical condition that results in loss of vision in the centre of the visual field (the macula) because of damage to the retina.

It is one of the leading causes of blindness in those over 50 years old. Smokers have a two to four times higher risk of developing AMD compared to non-smokers. The condition can make it difficult to read or recognise faces, although enough peripheral vision remains to allow you to continue with other daily activities. However, activities like driving and reading will be affected.

Normal Vision



Vision impaired by AMD



# CONGRATULATIONS!

## Promotions



**Adjunct Associate Professor  
Jodhbir Mehta**  
Senior Consultant  
Head (Research)  
Cornea Service



**Dr Gillian Teh**  
Registrar



**Adjunct Associate Professor  
Louis Tong**  
Senior Consultant  
Cornea Service



**Dr Wong Chee Wai**  
Registrar



**Dr Khor Wei Boon**  
Consultant  
Cornea Service



**Dr Woo Jyh Haur**  
Registrar



**Dr Livia Teo**  
Associate Consultant  
Oculoplastic Service

## Faculty Outstanding Research Award 2012



**Professor Aung Tin**  
Deputy Executive Director, Singapore Eye Research Institute  
Head (Research, Education and Development) and Senior Consultant, Glaucoma Service,  
Singapore National Eye Centre  
Professor, Department of Ophthalmology, Yong Loo Lin School of Medicine,  
National University of Singapore

## RiSE (Residency in SingHealth Excels) Award

### Passionate Educator Award



**Dr Rahat Hussain**  
Consultant  
Glaucoma Service

### Best Resident Award for Ophthalmology



**Dr Daniel Chua**  
Resident

### Innovative Educator Award



**Dr Audrey Chia**  
Senior Consultant  
Paediatric Ophthalmology and  
Adult Strabismus Service

### Best Resident Award for Transitional Year



**Dr Soh Yu Qiang**  
Resident

*SNEC Residency Programme also received the award for being one of the top three programmes based on the Accreditation Council for Graduate Medical Education International (ACGME-I) survey.*

# MARK YOUR DIARY!

## FOR PUBLIC

Check out [www.snec.com.sg](http://www.snec.com.sg) for more details

### SNEC Community Outreach Programmes



#### ■ World Glaucoma Week Educational Talks and Eye Screening

*(Registration fee for Basic Eye Screening is \$5 per person. Limited to 150 participants, first-come-first-served)*

##### WHEN

Saturday, 16 March 2013

##### WHERE

Auditorium, Level 4, Tower Block, SNEC

- Mandarin Talk: 9.00am-11.00am  
*(Eye Screening after the talk)*
- English Talk: 11.30am-1.00pm  
*(Eye Screening before the talk)*

##### To register:

Call: 6322 8822 (office hours)  
Email: [feedback@snec.com.sg](mailto:feedback@snec.com.sg)

## FOR OPHTHALMOLOGISTS / OPHTHALMOLOGY TRAINEES

Check out [www.snecmeetings.org](http://www.snecmeetings.org) for more details

#### ■ Advanced Corneal Surgery ALK/DSAEK Course [Wetlab & Live Surgery]

##### WHEN

Saturday – Monday, 18 - 20 May 2013

##### WHERE

Auditorium, Level 4, Tower Block, SNEC

## FOR NURSES AND ALLIED HEALTH STAFF

Check out [www.snecmeetings.org](http://www.snecmeetings.org) for more details

#### ■ Advances in Cataract Management for Nurses

##### WHEN

Saturday, 27 April 2013

##### WHERE

Auditorium, Level 4, Tower Block, SNEC

## APPOINTMENT BOOKING

TEL: (65) 6227 7266

FAX: (65) 6227 7290

Email: [appointments@snec.com.sg](mailto:appointments@snec.com.sg)

Website: [www.snec.com.sg](http://www.snec.com.sg)

## GP HOTLINE

TEL: (65) 6322 9399

## SingLASIK HOTLINE

TEL: (65) 6322 8891

FAX: (65) 6226 3403

Email: [singlasik@snec.com.sg](mailto:singlasik@snec.com.sg)

Website: [www.singlasik.com.sg](http://www.singlasik.com.sg)

## OPENING HOURS

**Mondays to Fridays**

8.30am to 5.30pm

**Saturdays, Sundays & Public Holidays**

No clinic sessions

**CONSULTATION IS  
BY APPOINTMENT ONLY**

### Disclaimer:

The features and stories in SingVision are provided for informational and educational purposes only. The answers you receive from SNEC specialists are not intended to be a substitute for individual medical advice in diagnosing or treating an eye problem. Please consult with your doctor about your specific eye condition and/or concerns.

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**CORPORATE COMMUNICATIONS DEPARTMENT**

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Website: [www.snec.com.sg](http://www.snec.com.sg)