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EDITOR'S NOTES

Dear readers, welcome to the latest edition of EyeSight!

In this issue, we shift the focus to our youngest patients: babies who need extra care for their eye health. Newborn babies born prematurely may need careful monitoring for retinopathy of prematurity (ROP), a disease that can have grave consequences for a child's vision. Our dedicated medical staff have been screening high-risk babies for regular check-ups in the hospital, and our paediatric ophthalmology team provides advice to parents who worry that their young children are unable to see well. For older school-going children, the Singapore National Eye Centre (SNEC) has recently published a study looking at the long-term safety of Atropine eyedrops used in myopia control treatment, which showed a good safety profile of the medication even after a 20-year follow-up.

We are also very proud to cast the spotlight on our stellar nursing staff, including a Q&A with our very first Nurse Clinician Nazurah Loh. In this interview, she describes her path to success and gives some insights into nursing. Nurse-led thermal treatment of dry eye disease is another example of how SNEC has continually improved our clinical processes to benefit our patients and the team behind this describes their journey to its establishment. Our nurses also emphasise staff well-being, and we are happy to share our experience in this area.

Other highlights include SNEC's collaboration with A*Star to promote bench-to-bedside research, as well as the recent accolades that have been awarded to SNEC and its staff. We hope that our latest edition continues to inform, entertain and inspire you.

Assoc Prof Audrey Chia
Editor-in-Chief

Dr Loh Kai Lyn
Co-Editor-in-Chief



CLINICAL HIGHLIGHTS

Q **NURSE-LED DRY EYE SERVICES: A NOVEL CLINICAL MODEL FOR SNEC PATIENTS**

WHAT IS THE NURSE-LED DRY EYE SERVICE?

Previously, the Lipiflow and Eye-Light treatments in SNEC have been administered by our doctors. Since January 2023, however, our postgraduate nurses have taken over the treatments.

The LipiFlow procedure makes use of Vector Thermal Pulsation Technology. The activators apply heat directly onto the meibomian glands in the eyelids, allowing rapid liquefaction of meibomian gland blockage for easier removal. Together with the pulsatile pressure applied to the glands, the activators push the blockage to the gland openings to clear any obstruction.

The Eye-Light procedure is based on the principles of light modulation and optimal power energy. It is a non-invasive treatment for most ocular surface conditions that can result from dry eye disease.

Light modulation treats the meibomian glands directly, inducing endogenous heating of both eyelids, which increases and stabilises the tear lipid layer. Optimal power energy applied on the periorbital and cheekbone areas triggers the stimulation of neurotransmitters. These solicit the meibomian glands to produce a higher amount of secretion, which then increases the natural lipid flow and reduces the evaporation of tears.



CLINICAL HIGHLIGHTS

WHAT DOES THE TREATMENT PROCESS INVOLVE?

Patient selection is critical for safe, efficacious, and successful LipiFlow and Eye-Light treatments.

Before LipiFlow Treatment	Post-Treatment Care
<p>In the consultation prior to the LipiFlow treatment, we first assess the patient's eyelid size. This can impact the treatment as the activator (a dome-shaped single-use sterile device) will be applied to the eyelid one at a time. The vault-shaped device will keep the cornea protected during the treatment. If the patient has small eyes, the activator may not fit well.</p> <p>At the end of the session, patients might experience some pain or discomfort from the procedure, but most will find such aftereffects tolerable.</p>	<p>After treatment, the patient should continue using a daily warm compress on their eyelids or engage in massage treatments.</p>
Before Eye-Light Treatment	Post-Treatment Care
<p>Prior to the Eye-Light treatment, there is a checklist for information that we will need to obtain from patients. This could include possible pregnancies, underlying medical conditions or medical devices in their bodies. Patients are strongly advised not to wear makeup before the treatment. They should also avoid products containing retinoids, as such products can cause increased sensitivity to UV exposure.</p> <p>The nurses will also explain some of the side effects of the treatment to potential patients, including a burning smell during the process, which comes from the burning of tiny facial hair and not the skin. Patients are also advised to expect some temporary changes, such as an increase in skin pigmentation or swelling around their eyes.</p>	<p>After treatment, the patient is advised to apply sunscreen for at least two weeks as the skin can be sensitive. They should also continue using a warm compress of the eyelids daily or massage treatments.</p>

NURSES TRAINING

In the first batch of training, our dry eye specialist Prof Louis Tong conducted a 2-hour lecture on the theory of dry eye treatment with four post-graduate nurses, followed by a written examination. Nurses who passed the theory exam proceeded with practical sessions.

Each nurse saw five patients while under supervision by the specialist doctor or trainer. To certify competence, the nurses needed to perform successfully (on their first attempt) on these five cases.

THE FUTURE OF NURSE-LED DRY EYES SERVICE

Since the nurse-led service began, we have successfully treated 76 patients. We will continue to train and groom new staff while working on improving our workflow and protocol.

Moving forward, we hope that this service will expand and be able to provide optimal care and therapy for dry eye patients. It is important to keep up to date with the latest skills and technological advances and educate the next generation of nurses.



Contributed by:



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MY BABY DOESN'T SEEM TO SEE WELL, HELP!

My 6-month-old baby is not interested in any toys we show him and does not engage in eye contact with us. Should I be concerned?

Q. HOW DO I KNOW IF MY CHILD HAS PROBLEMS WITH HIS/HER VISION?

You may observe any of the following signs:

- Lack of eye contact
- Lack of visual interest in toys, but may show interest in toys with sound or music
- Squinting of eyes to see
- Holds an object close to face when looking at it
- Difficulty recognising familiar faces or objects
- Bumping into things frequently, especially on one particular side
- Poor hand-eye coordination
- Frequent poking or pressing of eye(s)
- Abnormal sensitivity to light
- White pupil(s) noted in photos taken with camera flash
- Uncontrollable shakiness or movement of eyes
- Consistent abnormal turn or tilt of the head when looking at things
- Delayed visual milestones

Q. WHAT ARE THE COMMON CAUSES OF LOW VISION IN CHILDREN?

Some of the causes of low vision in children include (this list is not exhaustive):

- Amblyopia ("lazy eye") that may result from strabismus (misalignment of the eyes), a high refractive error or any other cause that may disrupt the development of vision
- High refractive errors (long-sightedness, short-sightedness or astigmatism)
- Paediatric cataract
- Paediatric glaucoma
- Albinism
- Nystagmus (uncontrolled shakiness of eyes)
- Trauma or brain injury
- Retinal and optic nerve abnormalities
- A genetic cause that may be indicated by a family history of eye diseases that cause low vision

Q: WHAT CAN I DO AS A PARENT OR CAREGIVER?

Please seek medical attention for your child as soon as possible, as it is a critical period for vision development. Timely intervention is necessary to prevent irreversible loss of vision and to improve your child's vision.

Q. WHAT ARE THE NORMAL VISUAL DEVELOPMENT MILESTONES?

Here are some signs of normal development for children between birth and two years of age. Remember, each child is different and may learn and grow at a different pace. These differences may or may not be cause for concern. As a parent or caregiver, you are the most important observer of your child's growth and development.

Visual Development Milestones

3 Months

- Looks at light sources and faces
- Turns eyes and head toward them
- Eye contact develops between 4-8 weeks
- Follows slow-moving objects

6 Months

- Reaches toward objects and picks them up
- Does not object to having either eye covered with a hand (that is not touching his or her face)
- Watches facial expressions and knows familiar faces
- An estimate of the child's vision can be tested by the eye specialist from 6 months of age

12 Months

- Tries to grab small objects
- Recognises objects that are partially hidden
- Recognises people, especially family members, and smiles at them
- Recognises pictures with simple shapes

18 Months

- Plays with simple puzzles
- Interested in books and pictures
- Recognises pictures and representations of real objects
- Learning to name pictures and objects

2 Years

- Understands pictures can be large or small and still represent the same thing
- Recognises familiar pictures
- Able to arrange similar pictures in groups
- Likes to imitate parents
- Can identify hair, eyes, ears and nose by pointing



Q. WHAT IS EARLY INTERVENTION (EI) BY ORTHOPTISTS AT SNEC?

Vision is important in a child's general development. For children who are blind or visually impaired, such development would consequently be affected.

The EI service aims to optimise the child's vision, and help parents and caregivers support the child's visual development through visual stimulation techniques customised for the child. Timely referrals to appropriate organisations to help your child develop holistically are also recommended. This service caters to children from birth to age 6.

Q. WHAT TESTS WILL BE PERFORMED BY ORTHOPTISTS IN THE EI SERVICE?

Orthoptists specialise in assessing vision in young children, but formal vision assessments are more accurate from 6 months of age. Prior to 6 months of age, simple tests can still be performed to obtain an estimation of how your child responds to visual stimuli.

We will also assess your child's eye coordination, depth perception, sensitivity to objects of lower contrast, and peripheral vision, where applicable. When low vision is suspected or diagnosed, we will assess how well your child can use their available vision.

Q. WHAT RESOURCES MAY BE USEFUL FOR ME?

For more information on low vision in children, you can refer to the websites below:

- [Orthoptics Service \(snec.com.sg\)](http://snec.com.sg)
- [Pediatric Low Vision - American Association for Pediatric Ophthalmology and Strabismus \(aapos.org\)](http://aapos.org)
- [Paediatric Ophthalmology & Adult Strabismus - HealthXchange](#)
- [Lazy Eye in Children \(Amblyopia\) - HealthXchange](#)
- [Childhood Cataract \(singhealth.com.sg\)](http://singhealth.com.sg)

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RETINOPATHY OF PREMATURETY: NEW DEVELOPMENTS IN AN OLD DISEASE

Q: IS RETINOPATHY OF PREMATURETY (ROP) REALLY AN OLD DISEASE?

Yes, it has been around since the 1940s when doctors began resuscitating babies with oxygen, and more premature babies survived infancy. The problem occurs in premature babies when the blood circulation in their eyes is not fully developed. When oxygen levels are higher than in the womb, this causes blood vessel development to stop initially before growing wildly.

Milder forms of the disease (Stage 1-2) can improve without treatment. However, more severe forms (Stage 3-5) can result in retinal traction, bleeding and detachment, which can cause visual loss or blindness.

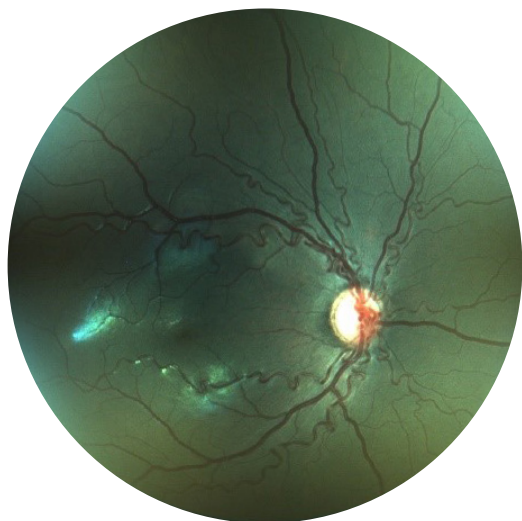
Q: IT SOUNDS LIKE A TERRIBLE DISEASE! HOW CAN IT BE DETECTED AND TREATED?

It is detected by screening all premature babies born before 32 weeks of gestation or with a birth weight of less than 1,500g. We will look for abnormal changes in the peripheral retina, such as a ridge (stage 2), abnormal blood vessels (stage 3) and plus disease, a condition where the blood vessels at the back of the eye are very dilated and tortuous (Figure 1).

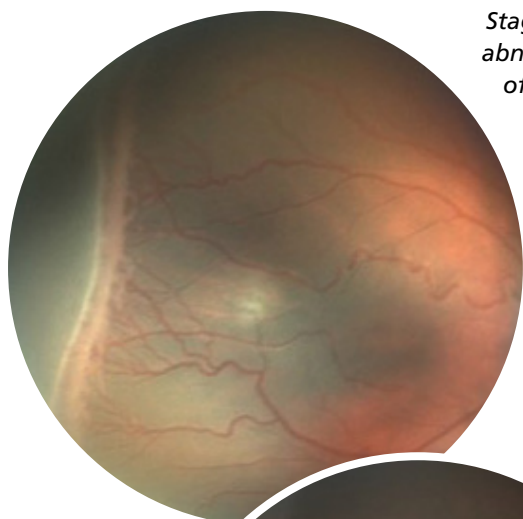
In more severe stages, timely treatment can help prevent disease progression. This could involve cryotherapy or laser treatment. However, very occasionally, the ROP can progress to retinal traction or detachment which might then necessitate surgery.



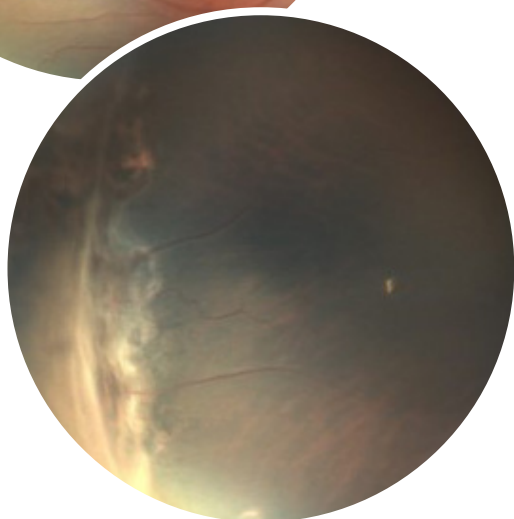
▼ Figure 1



Stage 3 ROP with abnormal growth of blood vessels



Regression post-laser treatment



Q: HOW MANY BABIES DO YOU SCREEN A YEAR? AND HOW MANY OF THEM NEED TREATMENT?

Our team of Paediatric Ophthalmologists at the Singapore General Hospital and the KK Women's and Children's Hospital currently screen approximately 200 babies per year.

A recent audit from 2018 to 2020 showed that of all the babies screened, about 30% developed ROP at some point during the screening process, though only 3-4% of these babies had ROP that was severe enough to require treatment.

Q: WHAT ARE SOME OF THE NEW DEVELOPMENTS OVER THE LAST FEW YEARS?

The Use of Anti-Vascular Endothelial Growth Factor (anti-VEGF) Injections

The use of anti-VEGF injections into the eyeball has, in recent years, emerged as a promising treatment for central and/or aggressive ROP. These agents target the abnormal growth of blood vessels in the retina and allow for the continued development of peripheral retinal vessels.

However, the need for close and long-term monitoring following anti-VEGF treatment is important. It can recur as early as 6-8 weeks after treatment or even up to months later. Hence, this may be difficult in some Asian countries where patients may reside in rural areas. Further adjunctive treatment with lasers or a repeat injection of anti-VEGF may be required.

The Use of Digital Imaging in the Screening and Monitoring of ROP

There is an increasing number of eye care centres worldwide that use digital retinal imaging for the screening and monitoring of ROP. It has also been invaluable in areas where there is limited access or availability of trained ophthalmologists.

In Singapore, we have the privilege of being a small country where access to subspecialised care is readily available. However, as the saying goes: "A picture speaks a thousand words". Having objective documentation can aid with pre-treatment monitoring progression and post-treatment improvement. At the KK Women's and Children's Hospital, digital retinal imaging is currently only used in select cases, though the intention is to move towards digital imaging for all in the near future.

Contributed by:



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Q. INTERVIEW WITH NURSE CLINICIAN NAZURAH LOH

Q. DEAR NAZURAH, CONGRATULATIONS ON BEING THE FIRST APN IN SNEC! THIS IS A GREAT ACHIEVEMENT ON YOUR PART, AND IT WILL DEFINITELY HAVE A POSITIVE IMPACT ON OUR CENTRE. COULD YOU LET US KNOW HOW AND WHY YOUR JOURNEY TO BECOMING AN APN STARTED?

Thank you! Appreciate your kind words Dr Kai Lyn.

I guess the idea of having an Advanced Practice Nurse (APN) in the Ophthalmic setting was in the talks a few years prior to 2018 amongst nursing leads and in the ophthalmic nurse setting. This was not surprising as the role of an APN is well-established in the ophthalmic setting, especially in the United Kingdom and Australia. Passionate ophthalmic nurses interested in further expanding their clinical role may advance professionally and clinically by furthering their studies. This role trains and equips the practitioner to provide a more holistic approach to the delivery of care and collaboratively as part of a multidisciplinary team together with the medical specialists.

Delving further in this journey didn't really occur to me until I was given the opportunity to attend an ophthalmic nursing conference held concurrently with the Royal Australian and New Zealand College of Ophthalmologists (RANZCO) back in 2018. There I witnessed various initiatives, and diverse and advanced nursing practices that enabled ophthalmic nurses to upskill and be trained to provide and deliver advanced ophthalmic care. That was certainly an eye-opener! At that juncture, I thought that perhaps training ophthalmic nurses to provide intravitreal injections was just the beginning for SNEC nurses to do more and expand our horizons.

Q. WHAT ARE SOME OF THE BIGGEST OBSTACLES YOU'VE FACED THROUGHOUT THE PROCESS?

According to a study by Ansah et al. (2018), the incidence of chronic eye conditions is projected to rise in Singapore. To address the resultant increase in workload, especially non-surgical load, the nursing team can perhaps play a larger role as part of a multi-disciplinary team. Likewise, the College of Ophthalmologists (Singapore) has proposed a hybrid model of care to which nurses can potentially contribute.

That being said, APNs who are trained locally undergo training tailored to reflect the nation's healthcare needs. The Master of Nursing curriculum offered by the National University of Singapore is the only programme accredited by the Singapore Nursing Board. The programme equips APN trainees with advanced knowledge, skills and clinical competency from a range of disciplines and common problems and conditions related to cardiovascular, respiratory, gastrointestinal, central nervous systems, endocrine, renal, common general medicine and psychological abnormalities.

Q. WHAT ADVICE WOULD YOU GIVE TO THOSE WHO MAY BE INTERESTED IN EMBARKING ON A SIMILAR PATH?

Interested individuals keen to embark on this journey in the ophthalmic field need to invest the time and commitment to build ophthalmic skills and knowledge. Thus, to my fellow ophthalmic nursing colleagues, I encourage you to take up any clinical opportunity and learn from the various multidisciplinary teams to build on your clinical knowledge and acumen while at the same time building on your clinical skills. This will help you to further value-add to the delivery of care for our patients.

Q. WOULD YOU MIND SHARING YOUR VISION OF THE FUTURE OF NURSING, PARTICULARLY IN OPHTHALMOLOGY?

My vision for the field is for ophthalmic nurses to be clinically competent to advise, motivate and help navigate patients to stay empowered in managing their eye health.

Contributed by:



Nazurah Loh
Nurse Clinician (APN)
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Interview conducted by Dr Loh Kai Lyn





🔍 **SNEC NURSING MINDFULNESS – NURSING WELLNESS PRACTICE: A WELLNESS EDUCATION AND PRACTICE**

Mindfulness-based interventions (MBIs) have been reported to be an effective strategy for reducing burnout and stress among healthcare workers. MBIs are designed to teach participants to become aware of their thoughts, feelings and bodily sensations while approaching these internal states with non-judgmental curiosity. The study aimed to foster resilience and reduce burnout among SNEC Operating Theatre (OT) nurses by promoting the regular practice of mental and emotional wellness exercises.

LOGISTICS

Five Nursing Champions were identified and trained by certified mindfulness trainers and practitioners across two 2-hour sessions in March and September 2022. They were trained to deliver 15-minute mindfulness-based intervention programmes to be conducted during the working day. There were three mindfulness exercises: mindfulness of the senses, body scans, and mindfulness of the breath. Each exercise

was between 5 to 10 minutes in length and was delivered as an audio recording. The recordings were prepared by mindfulness trainer Dr Kinjal Doshi, a clinical psychologist. The nurse champions received a guide and continued support from the mindfulness trainers who addressed the attendees' queries. All the participants were encouraged to practice these exercises on their own whenever they were able to.

SESSIONS CONDUCTED

The study was conducted between 1 April 2021 and 31 March 2022. A total of four 15-minute mindfulness-based intervention programme sessions were conducted between September 2021 to September 2022.

▼ *Appendix 1: Mindfulness session conducted inside one of the OR*





▲ Appendix 2: Mindfulness session conducted in recovery area

WHAT ARE THE CHALLENGES THE TEAM FACED?

The programme was designed to be delivered to the OT nurses weekly. However, due to constraints in manpower and staff required to support the clinical workload, the team had difficulty continuing to conduct the mindfulness practice.

HOW DO YOU THINK THE PROJECT CAN BE FURTHER IMPROVED?

This project provided the team with an opportunity to understand the challenges in carrying out mindfulness-based intervention among OT staff in a clinical setting due to the exigency of services. The study's results provided future researchers with valuable knowledge about recruitment, protocol feasibility and data collection methods.

The project should be extended to all staff and the upcoming study will repeat the same mindfulness-based intervention with a large sample of 100 nurses. The intervention will include Virtual Reality goggles for staff to engage in self-directed mindfulness during their free time.

DO YOU THINK THIS PROJECT IS IMPORTANT?

Yes, it is definitely important as mindfulness-based interventions are an evidence-based practice that supports and promotes mental and emotional well-being for OT nurses in SNEC.

WHAT DID THE TEAM LEARN FROM THIS PROJECT?

It would be beneficial if the staff could have more protected time to practice mindfulness consistently to help build their resilience. Research has proven that participants who engage in more well-being practice sessions will report higher levels of psychological well-being, empathy and compassion as well as lower levels of stress and burnout.

AWARD

This project's poster was awarded the 2nd prize under the Research Category at the 5th SingHealth Nursing & APN Conference held in conjunction with the 26th Joint Singapore-Malaysia Nursing Conference 2023.

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Q A 15-YEAR CHILDHOOD MYOPIA CONTROL JOURNEY WITH ATROPINE TREATMENT

Atropine has been established as a safe and effective method for myopia control in Asia through numerous clinical trials. This treatment is known to halt myopia progression. A recent study published in *JAMA Ophthalmology* suggests potential implications for future clinical trials.



A group of researchers, led by Assoc Prof Marcus Ang and Dr Yong Li, investigated the long-term consequences in adulthood for those who received atropine during childhood for the purpose of myopia control (ATLAS). In this study, one-quarter of the participants from the original Atropine Treatment of Myopia (ATOM) studies were invited to return for review 10 to 20 years later. In the ATOM 1 and 2 studies, done in 1996-2002 and 2006-2013, 800 children aged 6 to 12 years old were randomly assigned to the use of placebo, or atropine 1%, 0.5%, 0.1% or 0.01% over 2 years, after which it was stopped for a year (washed out). In ATOM2, children progressing in the washout year started again on low-dose atropine for another 2 years.

Q. HI MARCUS AND YONG LI, WHY DID YOU FEEL IT NECESSARY TO DO THIS STUDY AT THIS TIME?

From the ATOM studies, we knew that atropine was an effective agent in slowing myopia. In ATOM, even the lowest dose (0.01%) was effective, often with much fewer side effects. The study also showed that there could be a rebound after stopping atropine, which occurred more frequently for higher doses and younger children. What effect this would have on eventual myopia degree was uncertain.

Atropine also caused pupil dilation and loss of accommodation or near focus. From ATOM, we knew that pupil size and accommodation returned to normal after washout, but we could not be sure if the medication had a lingering biological effect, especially on the lens or retina (the light-sensitive film of the eye). We hoped the study would be able to answer these questions.

Q. SO, WHAT DID YOU FIND?

The results of the long-term ATLAS study suggest that atropine is indeed safe for children with no long-term increased incidence of complications such as cataracts, glaucoma or myopic maculopathy even in adulthood 10 to 20 years later.

There was only a small and statistically non-significant difference in myopia degree between treatment groups compared to placebo, suggesting that the short-term use of atropine may not lead to sustained benefit 10 to 15 years later.

Q. I AM CONFUSED. WAS ATROPINE EFFECTIVE OR NOT?

Yes, atropine is effective when used; this finding has been replicated in studies in Taiwan, Hong Kong and China. However, myopia is a progressive condition with degrees often increasing until the mid-teens. We believe that it is that the sudden cessation of atropine and subsequent rebound, together with the resumption of the myopia progression, that negated much of the treatment benefit.

Clinically, we know we can overcome this by continuing the medication into the mid-teens, starting on lower doses, and tapering the medication rather than stopping it suddenly. At the Singapore National Eye Centre, we have successfully used this management strategy, varying dose and duration according to individual response, for the last 10 to 20 years.

Q. SO, DO WE NEED CLINICAL TRIALS?

Yes, interventions subject to randomised controlled trials help us to test the strength and safety of new treatments. At the time of the ATOM studies, the efficacy and safety of atropine were still unknown, and it was prudent to have a shorter treatment period.

This study does, however, highlight the challenges posed by myopia-intervention-trials where the duration of treatment, the influence of genetics, culture, lifestyle and environment may all influence the outcome of the intervention.

Contributed by:



Assoc Prof Marcus Ang

Head & Senior Consultant, Cornea & External Eye Disease Department

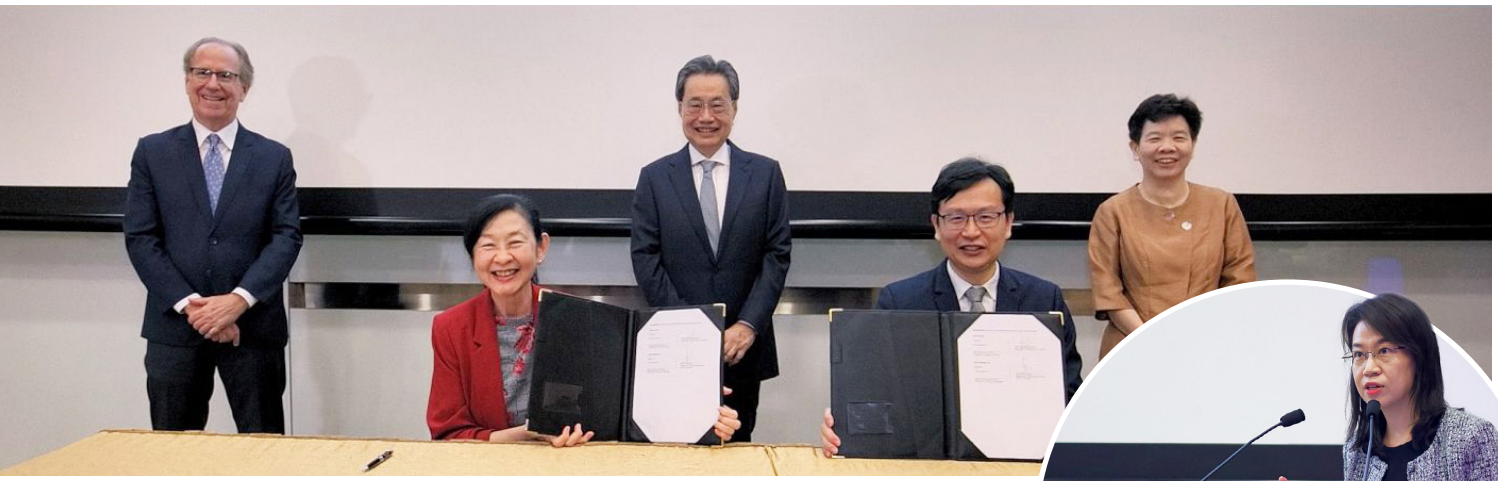
Head & Senior Consultant, Refractive Surgery Department

Advisor, Myopia Centre @ Bedok

SNEC



SNEC PARTNERS WITH A*STAR TO BOOST BENCH-TO-BEDSIDE RESEARCH



SingHealth and the Agency for Science, Technology and Research (A*STAR) have established an S\$8 million Healthcare Translation Partnership (HTP) to advance healthcare innovations that will help translate research from bench to bedside. This will create a vibrant healthcare innovation ecosystem that nurtures a pipeline of innovators to address the evolving landscape of care delivery.

The partnership is focused on three key areas: (1) Medical Technology, (2) Data Science, Artificial Intelligence (AI) and Digital Health, and (3) Health Services Innovation.

They aim to overcome challenges in translating scientific discoveries and innovative ideas from the lab to practical solutions in clinical settings. They will address it by establishing a framework and consolidating resources to facilitate joint projects between SingHealth Duke-NUS Academic Medical Centre (AMC) and A*STAR. As a part of the partnership, they will set up a dedicated office to coordinate and address translation challenges holistically. To facilitate collaboration between clinicians, healthcare innovators, research and industry partners, they will build bridges between the experts in healthcare innovation focus areas.

One of the first projects to receive support under this partnership is the Terahertz High Definition Eye Analysis (THEA) project, which will use an imaging system to evaluate ocular surface diseases more efficiently by facilitating earlier diagnosis and better management of ocular surface diseases.

Assoc Prof Liu Yu-Chi, Clinician Scientist, SNEC & Singapore Eye Research Institute (SERI) and clinical Principal Investigator (PI)

of THEA, says, "Our imaging system incorporates cutting-edge Terahertz technology to more accurately evaluate the severity and progression of corneal and ocular surface diseases. It will also help clinicians to better access the treatment effects. The clinical trial has started, and our ultimate aim is to deliver more effective medical care."

This project involves a team of clinician innovators and healthcare researchers from SNEC, SERI and A*STAR, who will receive funding support from HTP to refine the project prototype and catalyse the process of bringing the technology to market. According to Assoc Prof Yu-Chi, THEA is expected to be commercially available in about five years.

Another initiative is the establishment of the SERI-IHPC Joint Lab, co-led by Assoc Prof Daniel Ting, Head of AI & Digital Health, SERI and an Intelligent Eye Triaging System, a collaboration between SERI and IHPC. This system leverages machine learning to support primary care doctors in triaging eye patients.



Sources for this article:

1. <https://www.straitstimes.com/singapore/health/singhealth-astar-to-collaborate-fund-innovative-projects-to-advance-medical-technology>
2. <https://www.sneec.com.sg/news/academic-medicine/singhealth-and-astar-establish-s8-million-partnership-to-co-develop-healthcare-innovations-and-translate-research-from-bench-to-bedside>



AWARDS (OCTOBER 2023 TO MARCH 2024)



RESEARCH AWARDS

CONFERENCE / AWARD	CATEGORY	RECIPIENT	PROJECT / POSTER TITLE / AWARD DETAILS
SingHealth Publish! Award 2023		<ul style="list-style-type: none"> • Dr Teo Zhen Ling 	
Canadian Ophthalmological Society 2023	Bryan Liddy Lecture	<ul style="list-style-type: none"> • Prof Jodhbir Mehta 	Therapeutic Application of Corneal Lenticules
American Academy of Ophthalmology 2023	2023 Secretariat Award	<ul style="list-style-type: none"> • Assoc Prof Liu Nan • Dr Gilbert Lim 	
XXVI European Association for Vision and Eye Research (EVER) Congress 2023	Young Investigator Award	<ul style="list-style-type: none"> • Dr Ruben Hemelings 	External testing of an established glaucoma screening AI on a glaucoma clinic population from Finland
The Ophthalmologist Rising Stars 2023	World's Top 10 Rising Power Listers	<ul style="list-style-type: none"> • Dr Foo Li Lian 	
Elsevier-Stanford List 2023	World's Top 2% Scientists 2023	<ul style="list-style-type: none"> • Prof Aung Tin • Prof Jodhbir Mehta • Prof Wong Tien Yin • Clin Prof Donald Tan • Prof Ecosse Lamoureux • Prof Saw Seang Mei • Prof Cheng Ching-Yu • Prof Gemmy Cheung • Prof Louis Tong • Prof Dan Milea • Assoc Prof Audrey Chia • Assoc Prof Daniel Ting • Assoc Prof Michael Girard • Assoc Prof Lakshminarayanan Rajamani • Assoc Prof Charumathi Sabanayagam • Assoc Prof Gavin Tan • Assoc Prof Marcus Ang • Assoc Prof Liu Yu-Chi • Assoc Prof Cheung Ning • Adj Assoc Prof Rupesh Agrawal • Assoc Prof Jacqueline Chua • Dr Tham Yih Chung 	



AWARDS (OCTOBER 2023 TO MARCH 2024)



RESEARCH AWARDS

CONFERENCE / AWARD	CATEGORY	RECIPIENT	PROJECT / POSTER TITLE / AWARD DETAILS
62nd Annual Walter Wright Symposium 2023	Walter Wright Named Lecture	<ul style="list-style-type: none">• Prof Aung Tin	Current Management of Primary Angle Closure Suspect
Asia Pacific Tele-Ophthalmology Society (APTOS) 2023	APTOS Young Innovator Award	<ul style="list-style-type: none">• Dr Teo Zhen Ling	Federated Machine Learning in Healthcare: A Systematic Review on Clinical Applications and Technical Architecture
AI Health Summit 2023	Poster Competition: First Prize	<ul style="list-style-type: none">• Dr Teo Zhen Ling• Dr Jin Liyuan• Dr Tan Ting Fang• Dr Ravichandran Narrendar• Assoc Prof Daniel Ting	Privacy Enhancing Technologies for Collaborative Research in Medical Imaging: Federated Machine Learning and Web 3
16th Asia-Pacific Vitreo-Retina Society (APVRS 2023)	Constable Lecture 2023	<ul style="list-style-type: none">• Assoc Prof Gavin Tan	The Evolution of Multimodal imaging in Diabetic Retinopathy
37th Singapore-Malaysia Joint Meeting in Ophthalmology 2024	Best E-Poster Presentation: First Prize	<ul style="list-style-type: none">• Ms Angeline Toh	The Atropine Treatment Long-term Assessment Study (ATLAS): 10 to 20 Year Safety and Outcome Report
	Best E-Poster Presentation: Second Prize	<ul style="list-style-type: none">• Dr Olivia Huang	Effect of Pre-operative Fluorometholone on the Tear Cytokine Profile and Post-trabeculectomy Outcomes of Medicated Asian Glaucoma Patients
	Best Free Paper: First Prize	<ul style="list-style-type: none">• Dr Tan Ting Fang	An Explainable Artificial Intelligence System for Personalized Diabetic Retinopathy (DR) Screening: DR-PREDICT
Top 50 Asia Women Tech Leaders Award (AWTLA) 2024	Top 50 Asia Women Tech Leaders Award (AWTLA) 2024	<ul style="list-style-type: none">• Prof Saw Seang Mei	



AWARDS (OCTOBER 2023 TO MARCH 2024)



RESEARCH AWARDS

CONFERENCE / AWARD	CATEGORY	RECIPIENT	PROJECT / POSTER TITLE / AWARD DETAILS
Asia Pacific Journal of Ophthalmology (APJO) Awards Ceremony 2024	Top 10 most cited APJO articles, published between 2021 and 2023: Gold Medal	<ul style="list-style-type: none"> • Dr Tan Ting Fang • Dr Li Yong • Dr Jane Lim Sujuan • Dr Dinesh Visva • Dr Teo Zhen Ling • Dr Ng Wei Yan 	Metaverse and Virtual Health Care in Ophthalmology: Opportunities and Challenges
American Academy of Ophthalmology 2023	Ezell Fellowship	<ul style="list-style-type: none"> • Mr Soh Zhi Da 	



CLINICAL AWARD

CONFERENCE / AWARD	CATEGORY	RECIPIENT
SingHealth Family Target Zero Harm Award 2023	Individual Award	<ul style="list-style-type: none"> • Mohamed Muhaled bin Mohamed Wasis



EDUCATION AWARDS

CONFERENCE / AWARD	CATEGORY	RECIPIENT
Academic Medicine Education Institute (AMEI) Golden Apple Awards 2023	Outstanding Educator Award	<ul style="list-style-type: none"> • Dr Thiyagarajan Jayabaskar
Medical Education Grand Innovation Challenge (MEGIC) 2023	First Prize	<ul style="list-style-type: none"> • Prof Louis Tong • Dr Loo Jing Liang
Residency in SingHealth Excels (RiSE) Awards 2023	Outstanding Faculty Award	<ul style="list-style-type: none"> • Prof Gemmy Cheung • Assoc Prof Kelvin Teo • Dr Ong Hon Shing • Dr Low Jin Rong
	Outstanding Resident Award	<ul style="list-style-type: none"> • Dr Joshua Lim • Dr Shayne Tan
	Inspiring Resident Educator Award	<ul style="list-style-type: none"> • Dr Lim Xian Hui
	Partners-in-Education Award	<ul style="list-style-type: none"> • Mr Kasi Sandhanam