

Surge On

NEWSLETTER

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- Keep calm and carry on - Clinical Associate Professor Abhilash Balakrishnan

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- A Journey of Dedication in Urology - Clinical Associate Professor Kenneth Chen
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Legend

SGH: Singapore General Hospital

CGH: Changi General Hospital

SKH: Sengkang General Hospital

KKH: KK Women's and Children's Hospital

NCCS: National Centre for Singapore

DSSO: Division of Surgery and Surgical Oncology



**Clinical Associate Professor
Abhilash Balakrishnan**

Clinical Associate Professor, Duke-NUS
Medical School

Senior Consultant, Otorhinolaryngology–
Head & Neck Surgery, SGH
Visiting Consultant, Children's ENT Centre,
KKH

Keep calm and carry on

I am often told that I look younger than my age. Maybe it is because I enjoy my work as a clinician-plus very much and I thrive on having lots to do.

Reaching milestones

I know it sounds like forever when I tell my younger colleagues that I joined SGH as a trainee after completing my national service in 1979! I enjoyed practising as an ear, nose and throat surgeon at SGH and went on to sub-specialise further with a clinical fellowship in Paediatric Otolaryngology at the renowned Great Ormond Street Hospital for Sick Children in London in 1990.

I returned to Singapore as the first trained Paediatric Otolaryngologist in Singapore in 1991. I was then asked in 1997 to be the founding head of the Department of Otolaryngology at the KK Women and Children's Hospital (KKH) until I stepped down in 2006. I am currently still a Visiting Consultant to KKH.

Learning to teach better

Like all surgeons and clinicians of my time, I was teaching my younger colleagues using an apprenticeship model. However, I began to feel that medical education required a more structured approach and that I needed to know more about teaching. As I had excellent teachers in my younger days, I have always strongly felt the need to impart the right knowledge to future generations.

I was very fortunate to receive three SGH Talent Development Fellowships from 2011 to 2013 to be a Harvard Macy Scholar, and to study at the Harvard Macy Institute and the Massachusetts General Hospital Institute of Health Professions. I was one of the rare surgeons to enrol in a course on medical education. After that, as I had acquired about a third of the requirements for a Master's degree, I decided, at the age of 62, to spend a further two years on a Master of Science in Health Professions Education (MS-HPed) which was awarded to me in 2015. I was probably the oldest student in my course.

Besides teaching, I am very interested in surgical assessment. I was appointed the Chairman and Chief Examiner for the National Otolaryngology Exit Exams by the Ministry of Health. Since 2013, my examination committee and I have been writing and vetting questions for two national examinations a year.

I like to think that my passion for teaching is felt by my juniors. I feel appreciated as an educator in many ways, such as in the camaraderie I share with my students. I was also very pleased to be conferred the Outstanding Faculty Award at the 2023 Residency in SingHealth Excels (RISE) Awards which recognises the top 5% of faculty for their commitment and contribution to residency programmes.

Thriving as a clinician-plus

Now that I do not perform surgeries anymore, I'm dividing my time between clinical work at SGH and KKH, teaching and research.

In fact, this August, I will be giving an oral presentation in Basel, Switzerland on the use of virtual reality as a surgical training tool at the International Association for Health Professions Education (AMEE) conference. This is one of the largest annual conferences on Health Professions Education.

My lifelong motto is this quote by Mahatma Ghandi, "Live as if you were to die tomorrow. Learn as if you were to live forever." So, when I am asked if I ever feel like I may be burning out since I juggle so much, I always say no. I'll probably feel stressed with no work! I am proud to say that as long as I am needed by the hospital, department and the younger colleagues I so enjoy teaching, I will carry on.

My lifelong motto is this quote by Mahatma Ghandi, "Live as if you were to die tomorrow. Learn as if you were to live forever."

CATEGORY: AWARDS

Congratulations on your achievements!

Asia-Pacific Biopharma Excellence Awards (ABEA) 2024 - Clinical Research Lifetime Achievement Award

This well-deserved recognition was determined by industry voting from 70,000 professionals in the Clinical Trials community.



Professor Pierce Chow

Professor, Duke-NUS Medical School
Senior Consultant
Hepatopancreatobiliary & Transplant
Surgery, SGH & NCCS

SGH 25th Annual Scientific Meeting (ASM) – Clinical Research Abstract Award

Project Title: Early oncological and patient reported outcomes of an extended observational cohort of a Phase II clinical Trial in Focal Cryotherapy



Dr Yang Xinyan

Resident, Urology Residency,
SingHealth

FY2024 Cycle 1 ACP Programme Funding

Nurturing Clinician Research Scheme



Clin Asst Prof Chen Hui Lionel Raphael (PI)
Consultant, Colorectal Surgery,
SGH & NCCS

Project title:
A study of the genomic, transcriptomic
and immunological profiles of early-onset
colorectal cancer in Singapore

Global Health Support Grant



Asst Prof Angela Renayanti Dharmawan (PI)
Consultant, Head & Neck Surgery, SGH & NCCS



Mr Yau Rong Zhang Charles (Co-I)
Medical Student, Duke-NUS

Project title:
CARE-SCAN: Catalyzing Access and Revolutionizing
Endoluminal Cancer Screening

SingHealth Duke-NUS Academic Medicine Research Grant FY2024

Special Category (HSR-HEARTS)



Dr Chong Xi Zi Cheryl (PI)
Consultant, Surgery, SKH

Project title:
Addressing age-related sarcopenia in surgical
patients through a novel coordinator-led
prehabilitation service – a cost effectiveness analysis

SingHealth Duke-NUS Academic Medicine & National Health Innovation Centre Singapore Joint MedTech FY2024



Clin Asst Prof Mok Chi Wei (PI)
Consultant, Surgery, CGH



Dr Linn Yun Le (Co-PI)
Resident, General Surgery Residency,
SingHealth

Project title:
LumiTRAC: Providing optimal retraction and illumination to facilitate safe
and expedient minimally invasive breast surgeries

CATEGORY: AWARDS

DSSO Joy at Surgical Services (J@SS) Award Ceremony on 20 March 2024

Service Excellence Award presented for the period of June to December 2023

At the DSSO Joy at Surgical Services (J@SS) Award Ceremony, Clin Asst Prof Sachin Mathur, J@SS co-chair, presented key issues and action plans from the five sub-committees. He also shared about the pilot Post Graduate Year 1 (PGY1) befriender programme that was rolled out to a small group of PGY1s that were posted to Singapore General Hospital in February 2024.

The programme assigns Senior Medical Officers (MOs) to befriend new PGY1s to help them better adapt to workplace culture and systems, as well as share experiences. The programme was also subsequently planned for a roll out to a larger group of 20-30 PGY1s in the May 2024 intake.

A total of 20 individuals, from House Officers to Senior Consultants were awarded the Service Excellence Award for the period of June to December 2023.



Service Excellence Award winners (left to right)

Row 1: Dr Ong Kay Hsiang (HO category, General Surgery), Dr Long Ian James (MO category, Neurosurgery), Dr Mani Hemaavathi (MO category, Colorectal Surgery), Dr Chiu See Hui (JR category, Otorhinolaryngology – Head & Neck Surgery), Dr Manraj Singh Rikhras S/O M S (SR category, General Surgery), Dr Oey Chung Lie Sri Mukti (RP category, Breast Surgery)

Row 2: Dr Bawa Alpina Bandhu (RP category, Neurosurgery), Dr Tan Si Ying (AC category, Breast Surgery), Dr Lu Yadong (AC category, Urology), Dr Isaac Seow En (C category, Colorectal Surgery), Dr Edwin Jonathan Aslim (C category, Urology), Dr Sim Yi Rong (SC category, Breast Surgery)

Award winners not in photos: Dr Tey Wei Yuan (HO category, Obstetrics & Gynaecology), Dr Khong Zhi Wen, Aaron (HO category, General Surgery), Dr Joel Goh Co Ian (JR category, Otorhinolaryngology – Head & Neck Surgery), Dr Tan Yu Guang (SR category, Urology), Dr Ali Sahebkhaf (RP category, Colorectal Surgery), Dr Tay Kaijun (AC category, Otorhinolaryngology – Head & Neck Surgery), Dr Kenneth Chen (C category, Urology), Dr John Yuen Shyi Peng (SC category, Urology)

Congratulations to the **Top 3 Departments** – Breast Surgery, Urology and Sarcoma, Peritoneal and Rare Tumours (SPRinT) for receiving awards for the highest number of patient compliments from June to December 2023!



From left: Dr Sim Yi Rong for Dept of Breast Surgery, Dr Lu Yadong for Dept of Urology and Dr Claramae Chia for Dept of SPRinT.

Colorectal Cancer Awareness and Taking Charge of Bowel Health

Screen For Life (SFL) Programme

Preventative care is the key to living long and well. Early detection and prompt treatment of colorectal cancer through screening leads to better outcomes and survival.

Under the Health Promotion Board's (HPB) SFL Programme for Colorectal Cancer, Faecal Immunochemical Test (FIT) kits are readily available through the Singapore Cancer Society (SCS) and participating General Practitioner (GP) clinics.

The Department of Colorectal Surgery in SGH works closely with HPB to ensure that all patients referred to SGH for further assessment under the Programme are followed up with in a timely manner. We are ably assisted by our partners in Gastroenterology and General Surgery to achieve screening targets. The overall wait time from date of referral to colonoscopy is less than six weeks. To increase accessibility and timely appointments with clinicians, a weekly, dedicated video consultation clinic is held for FIT positive patients referred from the SFL Programme, in addition to in-person sessions.

As part of community outreach efforts, annual public webinars and GP webinars have also been organised, with the latest public webinar on 23 March 2024 seeing a remarkable turnout of 1,044 participants on Zoom.

SGH Preventing Rectal and Colon Cancer through Endoscopy (SPRUCE) Fund

In August 2019, the SGH Preventing Rectal and Colon Cancer through Endoscopy (SPRUCE) fund was established with the aim to:

- Provide financial assistance to patients who are unable to afford the cost of colonoscopy procedures
- Raise awareness of colonoscopy as an important tool to prevent and/or detect early colorectal cancer

On 9 March 2024, a SPRUCE colonoscopy drive was organised, with 34 eligible patients receiving colonoscopies at no cost. This event was made possible with the support of our colorectal surgeons and staff from the Ambulatory Endoscopy Centre.

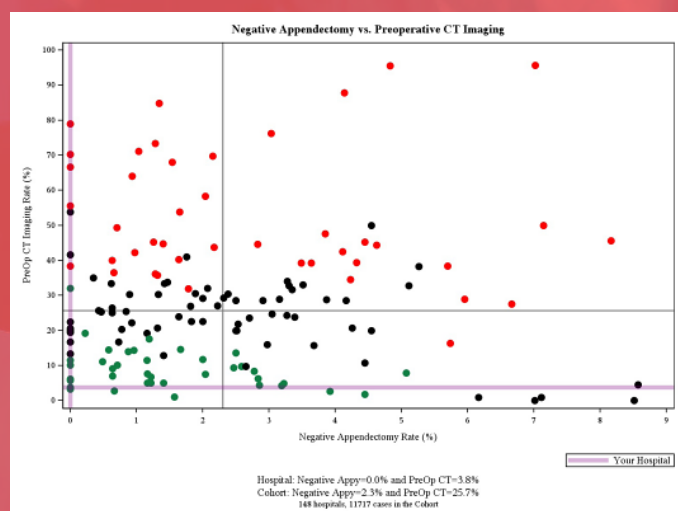
We stand steadfast in our commitment to serve our patients and strive to ensure that every individual receives the care and support they require to live healthy and fulfilling lives.



SPRUCE Colonoscopy Drive on 9 March 2024 – Group photo with staff and volunteers from Department of Colorectal Surgery and Ambulatory Endoscopy Centre, SGH

KKH NSQIP Experience

In late 2020, as the worldwide COVID-19 scourge was just starting to abate, the Division of Surgery at KKH enrolled in the National Surgical Quality Improvement Programme – Pediatric (ACS NSQIP-P), originally developed by the American College of Surgeons (ACS) in collaboration with the American Pediatric Surgical Association (APSA). This was yet another step forward in KKH's commitment to quality improvement. NSQIP-P allows us to analyse and report on surgical care quality and benchmark our clinical outcomes against some of the best hospitals in the world, from data that is collected from subspecialties such as Neurosurgery, Orthopaedic Surgery, Otolaryngology, Paediatric Surgery, Plastic and Reconstructive Surgery and Urology. Areas that are done well are identified as Exemplary, whilst areas that fall short are reported as Need Improvement.



Preop CT imaging vs Negative appendectomy rate, NSQIP-P SAR January 2024

As the biannual reports started coming in, the Division of Surgery was excited to see that we enjoyed consistent Exemplary results in some areas. For example, the incidence of Organ Space Surgical Site Infection in Complicated Appendectomy has been Exemplary for four consecutive reports since July 2022. This reflected excellence in technical operative and postoperative care by the paediatric general surgeons for patients presenting late with perforated appendicitis; a relatively common scenario in paediatric practice. Negative appendectomy rates are also consistently lower than cohort. The use of diagnostic Computer Tomography (CT) scans is also very low, an important consideration in paediatric practice to reduce childhood exposure to radiation. Despite low CT use, the rates of negative

appendectomy were also low, reflecting excellent clinical diagnostic acumen and high ultrasonographic accuracy. Surgical Site Infections in Otolaryngology and Plastic and Reconstructive Surgery are also consistently low.

However, there were also areas noted to Need Improvement. QI projects have since commenced to address these gaps, one of which is to explore ways of reducing allogenic blood transfusions in spinal surgery. Although this particular QI project is still ongoing and results have not been finalised, improvements in serial reports have already been noted. This shows that in some situations, even before system changes, clinician awareness and attention can lead to adjustments in practices that benefit patients. This reinforces the need for such programmes that serve to audit and benchmark our work and highlights the importance of effective dissemination and communication of these reports.

In 2022, ACS NSQIP-P also started to issue Surgical Antibiotic Stewardship (SAP) reports. This was developed to assess and compare utilisation of surgical antimicrobial prophylaxis among ACS NSQIP Pediatric hospitals. This has allowed us, in collaboration with the Hospital Antibiotic Stewardship Programme, to update current antibiogram and engage clinicians for better compliance and improved antibiotic stewardship.

We can and have begun to reap much benefit from NSQIP-P at KKH. It identifies areas which we can target for quality improvement, helps us to better steward our resources, and most importantly, enhance our patients' experience - with safer and higher quality care. For patients remain at the heart of all we do.



The KKH NSQIP Team (L-R):
Ms Amanda Chng, Surgical
Clinical Reviewer; Ms Jessica Oo,
Administrator; Clin Assoc Prof Low
Yee, Surgeon Champion

Paediatric Totally Endoscopic Ear Surgery (TEES) at KKH



Photos after completing cholesteatoma surgery with no external incisions. The patient did not require analgesia by post-op day two.

Paediatric Totally Endoscopic Ear Surgery (TEES) at KKH

Endoscopic ear surgery has gained popularity in the past decade and is a rapidly evolving field. While its use is gaining popularity in adults, paediatric endoscopic ear surgery in children is in its infancy. Totally endoscopic ear surgery (TEES) is performed through the ear canal, with no external incisions. Although children have smaller ear canals, it is a feasible approach for almost all tympanic membrane repairs and selected cholesteatoma surgeries.

Why TEES?

The idea of surgery without external incisions is extremely popular amongst patients and caregivers. To the surgeon, the traditional endaural or post-auricular incision used in microscopic surgery is of little consequence as the scar is well hidden. However, there remain some disadvantages to these approaches. In the immediate post-surgical period, the incision causes pain and a small risk of wound infection. Without an external incision, TEES makes wound care easier, allows faster discharge from hospital, return to school and eliminates the need for a mastoid dressing. In the longer term, TEES also avoids ear protrusion, pinna numbness, hyperesthesia and wound complications.

TEES indications in children

Adequate external auditory canal size and suitable pathology are pre-requisites for TEES. There is no minimum age. Paediatric TEES is used primarily for tympanic membrane perforations,

cholesteatoma and ossicular anomalies. Tympanic membrane perforations can be reconstructed with tragal cartilage or perichondrium obtained via a small incision posterior to the tragus, temporalis fascia harvested via a small incision within the hairline, or porcine submucosal collagen graft.

Cholesteatoma limited to the middle ear, not involving the mastoid antrum is also amenable to TEES. Angled endoscopes and instruments can be used to visualise and remove disease from corners. A limited atticotomy allows removal of cholesteatoma that extends to the mastoid antrum, until the limits of the lateral semicircular canal.

Exploratory tympanotomy provides a diagnostic and potentially therapeutic option for conductive hearing loss. Endoscopic ossiculoplasty can be performed at the same setting.

Paediatric TEES at KKH

Since introducing the paediatric TEES service two and a half years ago, we have performed TEES for children from as young as seven years old with good patient experience and outcomes. We aspire to continue to push boundaries and look forward to more patients benefitting from this minimally invasive surgery.



Clin Asst Prof Chan Ching Yee
Senior Consultant, Department of Otolaryngology, KKH
Email: chan.ching.yee@singhealth.com.sg

Footnote:

Clin Asst Prof Chan Ching Yee performs paediatric TEES in KKH and welcomes referrals. She will counsel patients on the suitability of TEES for their condition after detailed assessment.

Robotic Mastectomy – The Next Frontier in Breast Cancer Surgery

Robotic breast surgery is part of minimally invasive breast surgery techniques and can be considered a more advanced option when compared to endoscopic breast surgery. The use of the robotic surgical platform offers a system with greater precision and better ergonomics than standard laparoscopic/endoscopic systems.

Robotic breast surgery was first performed in 2015 in Italy and has since been performed in places such as France, South Korea, Taiwan, China, Japan and Hong Kong. There have been numerous studies published and the advantages of robotic breast surgery include but are not limited to: smaller incision/scars resulting in lesser pain and faster recovery, and hidden scars leading to better aesthetic outcomes.

Both endoscopic and robotic breast surgery have been shown to result in better wound related satisfaction when compared to conventional surgery. In addition, oncological outcomes have been proven to be comparable to that of conventional breast surgery. This is reassuring, as oncological safety is of paramount importance in breast cancer treatment. There is no specific disadvantage ascribed to the technique itself, but additional cost in terms of consumables could be a limiting factor to its widespread adoption and availability.

In Singapore, the SingHealth Duke-NUS Breast Centre is proud to lead this field with Asst Prof Mok Chi Wei, Consultant, Division Of Breast Surgery, Department of Surgery, CGH as the lead Principal Investigator (PI) for the first pilot robotic mastectomy trial in Singapore and South East Asia, aptly named “Pilot Robotic Mastectomy in Singapore (PRoMiSing I) Study: First Safety and Feasibility Prospective Trial in South East Asia”. From December 2022 to December 2023, a total of 29 cases of robotic mastectomy were enrolled in CGH. The results of ProMiSing I demonstrated the safety of robotic mastectomy in our local population with excellent aesthetic outcomes. With such promising results, Asst Prof Mok and his team are currently recruiting patients for a long-term prospective cohort study: “Prospective Robotic Mastectomy in Singapore (PRoMiSing II) Study – Prospective

Phase II Cohort Study on Long Term Outcomes Evaluations” to evaluate long-term oncologic and survival outcomes, as well as patient satisfaction.

The future is promising for the field of breast cancer surgery, as minimally invasive breast surgery techniques continue to demonstrate higher patient satisfaction while maintaining oncological safety. Asst Prof Mok shared that patient outcomes and satisfaction for patients who underwent minimally invasive breast surgery (endoscopic and robotic) in CGH since the Minimally Invasive Breast Surgery Service was set up in 2020 have been encouraging thus far. With greater empowerment and patient education, the demand for minimally invasive breast surgery will surely be on the upward trend, and CGH, as one of the key institutions under the SingHealth Duke-NUS Breast Centre, is proud to lead this along with our colleagues in SGH, SKH, KKH and NCCS.



*Clinical Assistant Professor Mok Chi Wei
Consultant
Division of Breast Surgery, CGH
SingHealth Duke-NUS Breast Centre*



Robotic Mastectomy

Bringing iGauze, a prototype AI-vision based medical device from bench to bedside, in order to prevent Gossypiboma, reduce potential morbidity and mortality and improve patient safety



Assistant Professor Luke Tay Hsien Ts'ung (PI)
Senior Consultant, Vascular Surgery,
Division of Surgery & Surgical Oncology, SGH & NCCS;
Director, SingHealth Duke-NUS Vascular Centre;
NMRC Clinician Innovator Award Winner

Gossypiboma, or surgical gauze inadvertently retained within a patient, does not happen very frequently. However, there are devastating consequences on the patient and medicolegal interventions on hospitals when it does. This challenge continues to plague all hospitals around the world despite extensive intraoperative checklists and protocols to prevent it.

We believe an assistive Artificial Intelligence (AI) system would be helpful in reducing stress and process-load overheads that nurses face in doing repeated manual counts at the end of every operation, only to discover a count mis-tally and then scramble to locate and identify potential retained gauze.

Our team, comprising members from SGH and NTU, had previously developed a prototype AI vision system using cameras and machine learning that was trained to recognise clean and bloodied gauze. It performed well on bench, with a 95% prediction rate. Subsequently, we went on to apply for and were awarded the National Medical Research Council (NMRC) Clinician Innovator Award (CIA) grant to take our bench prototype into a real-world environment.

Innovation is always a journey fraught with surprises and this project was no different. Nonetheless, the team has continued development at a good pace. Our initial trials in the Operating Theatre (OT) have given us insights into nursing and sterility constraints, which we had previously anticipated since our team also comprised nurses and doctors. However, we also encountered a new issue with a killer "ghost bug", where the AI vision system erroneously recognises gauze where there are none and creates an incorrect, incrementally increasing running tally. We have been feverishly working to

troubleshoot this, and have retrained our model with a newer, more powerful AI backbone, additionally taken approximately 8,000 images of gauze (in OT after hours, over many lonely nights) and have implemented a number of additional mitigatory processes in attempts to address the problem, as well as to record and review on the fly and add error-causing situations into its database.

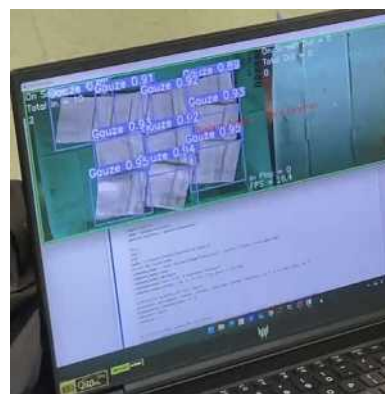
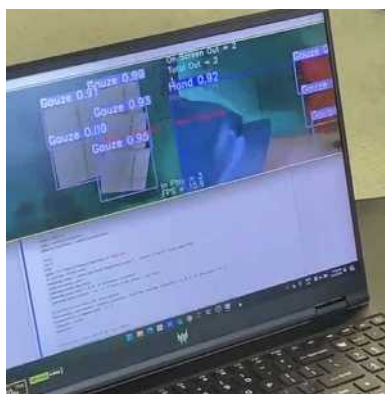
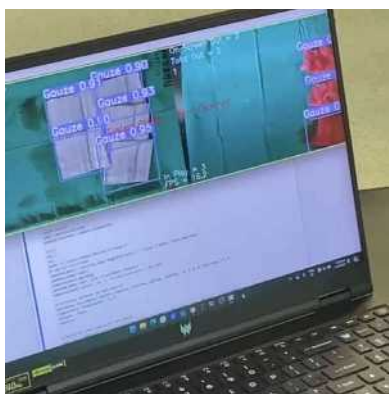
This project is ongoing, and the end date has been extended to September 2024. We hope to have completed real world tests by this time with a fully functioning prototype. Thank you for your support.

Updates as at 24 June 2024: The team is ecstatic to report that we have fixed the "ghost bug" and performed a successful trial in OT during a real-world live surgery. We are now looking forward to iterating the hardware embodiment further to better suit our stakeholders' desires, before our next field trial!



(Left to Right) Project Team Members:

- Assoc Prof Cai Yiyu, School of Mechanical and Aerospace Engineering, NTU
- Asst Prof Tay Hsien Ts'ung Luke, Vascular and Endovascular Surgery, SGH
- Mr Tee Chang Zen, NTU
- Mr Victor Raj S/O Mahendran, NTU
- NC Aaron Tham, SGH Nursing (not in picture)
- Mr Krish Saraf, NTU (not in picture)



Prototypes in action

The Next-Gen Mobilisation Trolley for an Efficient and Safe Patient Care

In intensive care units (ICUs), early mobilization and exposure to natural light, often referred to as “sunshine therapy,” are essential yet resource-intensive practices. To address this challenge, our team has developed an innovative mobilisation trolley prototype. Originally designed for the safe ambulation of surgical ICU patients, this trolley has now evolved to benefit a broader range of patients, including those in the medical ICU.

The mobilisation trolley not only enhances patient safety during ambulation but also significantly improves the efficiency of the mobilisation team. Its design includes features that facilitate the safe movement of patients, making the process smoother and less labor-intensive for healthcare providers.

Given its ease of use and safety, the trolley’s application has been expanded to include outdoor sunshine therapy for ICU patients. Research has shown that exposure to natural light can improve patient outcomes and overall well-being, making this development a crucial step towards holistic healing.

The project has garnered additional support, securing second funding under the Clinical & System Innovation grant. This funding allows us to collaborate with KK Women’s and Children’s Hospital (KKH) to extend the trolley’s benefits to pediatric patients. This partnership marks a significant advancement in pediatric ICU care and underscores our commitment to innovation in patient-centered healthcare.

The mobilisation trolley project exemplifies our dedication to enhancing patient care through innovation and collaboration. As we continue to develop and refine this technology, we look forward to sharing further updates on its impact and success.



The Compact Trolley is an “all in one” device that includes a mount for the physiologic monitor, drip pole, slots for the transport ventilator with oxygen tank and hook-on bars at the side for the urinary bag and surgical drains.



The compact trolley allows the safe transport of patients for sunshine therapy as it can be mounted on a reclining wheelchair and manoeuvred from behind.

Team Members:

[Left to Right]:

1. Mr Harminder Singh Olikh, Nurse Clinician II, Surgical ICU, Nursing, SGH
2. Ms Deborah Heymamarini D/O Thiruselven, Asst Nurse Clinician, MICU, Nursing, SGH
3. Ms Patricia Yong Yueh Li, Deputy Director, DNA - Patient Care Services & Professional Affairs Admin, Nursing, SGH
4. Clin Asst Prof Fazila Aloweni, Senior Nurse Manager, DNA - Patient Care Services & Professional Affairs Admin, Nursing, SGH (Principal Investigator)
5. Ms Irene Too Ai Ling, Senior Nurse Clinician (APN), Specialty Nursing, Surgical ICU, Nursing, SGH
6. Clin Asst Prof Sewa Duu Wen, Senior Consultant, Respiratory & CCM, Medicine, SGH
7. Mr Vimal Palanichamy, Senior Principal Physiotherapist (C), Physiotherapy, SGH



Bridging the Gap: My Research Journey



**Clinical Assistant Professor
Chen Hui Lionel Raphael**
Consultant, Colorectal Surgery,
SGH & NCCS

I embarked on the path of being a surgeon-scientist by enrolling in Duke-NUS Medical School's PhD programme in Clinical and Translational Science in 2022. A surgeon-scientist is a surgically trained individual who identifies unmet needs, engages in translational research, and bridges healthcare gaps through collaborations with scientists. Despite the challenges, I chose this path to advance colorectal surgery and improve patient outcomes.

As a colorectal surgeon, most of my work involves treating patients diagnosed with colorectal cancer. While many of these patients are elderly, I have encountered some younger than 50 years old. These patients are early in their careers, with young children and financial responsibilities. Most have no risk factors for cancer and initially dismissed symptoms like abdominal discomfort and per-rectal bleeding as irritable bowel syndrome or hemorrhoids. My clinical encounters with these young patients motivated me to enroll in the programme to gain a deeper understanding of basic science and become an expert in this field.

My mentor, Assoc Prof Iain Tan from the Department of Medical Oncology at NCCS, has extensively guided me through this journey. He introduced me to his collaborators from NCCS, A*STAR, and Saw Swee Hock School of Public Health. Through this network, I could consult epidemiologists on interpreting preliminary data and computational scientists on the bioinformatics aspect of my project.

Being part of a close-knit community of like-minded clinician-scientists has been invaluable. My classmates come from various specialties, and through our coursework, we have forged strong friendships. The monthly Research Seminars organised by the Surgery ACP Research Office provide a platform for clinician-scientists within Surgery ACP to share experiences and offer advice to young surgeons. Through the support and guidance from these networks, I improved my research proposal and secured the Nurturing Clinician Researcher Scheme (NCRS) grant.

Balancing surgical training and coursework at Duke-NUS has been challenging, but I have received immense support from my Head of Department, Assoc Prof Emile Tan, and colleagues. They understand the commitments of being a clinician-scientist and have curated my training to allow time for research courses and surgical experience. Despite concerns that pursuing this path could delay my clinical progression, I was promoted to Consultant simultaneously with my peers, thanks to the support from Cin Assoc Prof Henry Ho, Division Chair, DSSO, SGH, and Clin Prof Emile Tan.

I attribute my ability to juggle clinical commitments and PhD studies to the unwavering support of my wife and family. My wife has managed the home front, allowing me to focus on my surgical training and studies. While the journey involves personal sacrifices, the support from my division, department, Surgery ACP, mentor, and family has been crucial. I hope my journey will inspire younger surgical trainees to pursue academic medicine and make a difference.

*Last day of our statistics
course in Year 2*



*Colorectal Surgery
MO Farewell and
Appreciation Dinner*



Professor Walter Lee's Visit to the SingHealth Duke-NUS AMC

Surgery ACP had the pleasure of welcoming Professor Walter Lee to our AMC on 21 and 22 March 2024. Prof Lee is a Professor and Chief of Staff in the Department of Head and Neck Surgery and Communication Sciences, Duke University School of Medicine, and is a renown surgeon-innovator with an interest in global health, research and innovation. He will be visiting SingHealth Duke-NUS AMC twice a year for talent development, global health/surgery and innovation.

Global Surgery Meeting at Sengkang General Hospital Campus

Hosted at the SKH Campus, some representatives from the Global Surgery Programme convened to share more about their projects. Clin Asst Prof Foo Fung Joon, Director, Global Surgery Programme, together with Dr Nathanelle Khoo, Associate Consultant, Department of Surgery, SKH, shared more about the Surgery in Austere Environments Course that is planned to take place in November 2024. From this sharing, the Global Surgery team was able to gather some feedback, gain exposure to Prof Lee's Global Health projects, and lay the foundation for future collaboration for Global Health grants.



[Left to Right]
Clin Prof Benita Tan, Clin Asst Prof Foo Fung Joon, Dr Nathanelle Khoo, Prof Walter Lee and Clin Assoc Prof Henry Ho

Clin Asst Prof Foo Fung Joon and Dr Nathanelle Khoo sharing more about the Surgery in Austere Environments Course

Clinician Researcher and Innovator Forum and Duke-NUS Seminar

A budding clinician-researcher, Dr Cai Mingzhe, presented his abstract for the Nurturing Clinician Researcher Scheme (NCRS) grant application for Prof Lee's advice and feedback. Earmarked medical student, resident and consultants (Ms Josephine Hendrikson, Dr Meghan Lim, Clin Assoc Prof Frederick Koh and Dr Shannon Nicholas) shared their abstracts with Prof Lee for his feedback. These individuals attended the Duke Surgery Annual Research Day in April 2024.



[Left to Right]
Clin Assoc Prof Frederick Koh, Dr Cai Mingzhe, Ms Josephine Hendrikson, Assoc Prof Johnny Ong, Prof Walter Lee, Dr Meghan Lim and Dr Nicholas Shannon

Meeting with Various Teams

Prof Lee had the pleasure of meeting the ENT-HNS team, HSRC members, Vivo Surgical collaborators as well as the AI and Innovation Offices during his visit.



[Left to Right]
ENT-HNS team:
Clin Asst Prof Neville Teo, Clin Asst Prof Joyce Tang, Clin Assoc Prof Toh Song Tar, Prof Walter Lee, Clin Asst Prof Vanessa Tan, Assoc Prof Lim Chwee Ming

[Left to Right]
AI and Innovation Offices:
Prof Walter Lee, Fiona Loke, Serene Cheong, Freya Zheng and Carol Sim



[Left to Right]
Vivo Surgical Collaborators:
Asst Prof Rena Dharmawan, Mr Charles Yau, Dr Kevin Koh, Prof Walter Lee

SingHealth Health Services Research (HSR) Seminar Series and Signature Seminar Series

In seminar and meeting rooms filled with interested listeners, Prof Lee shared his experience as a surgeon and Chief of Staff.



Prof Walter Lee sharing his view on the changes in US healthcare reimbursement

Prof Walter Lee sharing his lessons learnt from a course titled "Leadership Lived Out". This talk was hosted by Assoc Prof Lim Chwee Ming

Experiences of Preceptorship in Singapore: A qualitative exploratory study of preceptors' experience in precepting nursing students during pre-registration of clinical placement in an acute hospital

Nursing students are trained to acquire the skills and knowledge in providing quality care to patients, and preceptors play a crucial role in teaching and guiding these students to transit to the role of registered nurses. However, the preceptors in the clinical area may face challenges in providing care to their patients in addition to their roles as preceptors. Therefore, it is vital to explore and gain insights into the preceptorship experience to better understand their challenges and empower them to better support the learning experience of the nursing students.

This study aimed to explore the preceptors' experience to understand their challenges and support received in the facilitation of the programme and learning experience of the nursing students in an acute care hospital in Singapore. The qualitative research was conducted with ten registered nurses in our acute hospital. Using thematic analysis, three main themes emerged: (1) preceptor-student relationship; (2) barriers and challenges to successful preceptorship, and (3) outcomes of successful preceptorship. Our findings revealed the complexity and demanding task of preceptors; accentuating the preceptor's perception of their roles, their intrinsic teaching styles, challenges encountered to attain practice readiness towards a successful outcome.

The study recommends that nursing management and leaders establish a support system to promote recognition of preceptors and facilitate dialogue sessions between stakeholders. Additionally, the nursing education team should provide support and review the efficacy of the current preceptorship programme to identify factors contributing

to successful experiences for both preceptors and nursing students. One tool to better support preceptors was the Progressive Evaluation Tool, which guided them in evaluating nursing students' developmental learning progress during the programme.

The study provided valuable insights and on the role modelling and positive influences of preceptors in shaping nursing students and impacting the future nursing workforce



[Left to Right] The project team from Institute of Advanced Nursing, SGH:

1. Ms Azkiah Binte Abdul Jabbar, Senior Staff Nurse
2. Ms Chan Sook Keng, Nurse Educator
3. (PI) Ms Lau Keat Yeng, Asst Nurse Clinician
4. Ms Cheah Le Le, AM Lead, Surgery ACP; Asst Director, Nursing (Education)

Experiences of preceptorship in Singapore: A qualitative exploratory study of preceptors' experience in precepting nursing students during pre-registration of clinical placement in an acute hospital

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Nursing students
Preceptors' experience
Acute hospital

ABSTRACT

Background: Preceptors play an important role in teaching and guiding nursing students to transit to the role of registered nurses. Nursing students are trained to acquire the skills and knowledge in providing good quality care to patients. However, the preceptors in the clinical area may face challenges in providing care to their patients in addition to their preceptor role. It is vital to explore and gain insights on the preceptorship experience to better understand their challenges and facilitate their preceptorships and the learning experience of the nursing students.

Aims: This study explored the preceptors' experience to understand their challenges and support received in the facilitation of the preceptorship and learning experience of the nursing students in an acute care hospital in Singapore.

Methods: Semi-structured interviews were conducted from June to October 2021 with ten registered nurses working in an acute hospital. Thematic analysis was conducted.

Results: Three main themes emerged from the thematic analysis: (1) preceptor-student relationship; (2) barriers and challenges to successful preceptorship; and (3) outcomes of successful preceptorship.

Conclusions: This study provided valuable insights in the experience of the preceptors in Singapore. Recommendation for nursing management and leaders to establish support system in promoting recognition of preceptors, establish dialog sessions between stakeholders. Nursing education to provide support and to review the efficacy of the current preceptorship program to identify correlation with successful precepting experience for both preceptors and nursing students. Despite challenges faced by the preceptors, their experience had been positive and they are committed in precepting the nursing students.

The full article was published in the "Nurse Education in Practice", Volume 75, Jan 2024.

5th Surgical International Training Experience (SITE) Sharing Event 1st Theme-based Fellowship Learning Exchanges - Fellowships in Asia (China/Taiwan)

On May 17 this year, an interest group gathered at CALI, Ascott Raffles Place, for the 5th SITE Sharing Event, focusing on the first theme-based fellowships in Asia (China/Taiwan). The event featured lively discussions and memorable learning exchanges.

The evening began with networking, followed by a warm welcome from Clin Assoc Prof Winson Tan, Deputy Vice Chair (FAPD), Surgery ACP. His remarks set an enthusiastic tone for the evening, which continued with a delightful dinner.

The highlight of the event were the presentations by three speakers who shared their fellowship stories. Clin Asst Prof Yap Hao Yun recounted her experiences in Advanced Open and Endovascular Vascular Surgery at Zhongshan Hospital, Shanghai. Her story of navigating the challenges of COVID-19 in China in 2023 was touching and enlightening.

Clin Asst Prof Alvin Tan presentation, titled “欢迎光临 – Welcome to Taiwan”, delved into his fellowship in Minimally Invasive HPB Surgery at Far Eastern Memorial Hospital, New Taipei City. He also shared insights into mastering traditional and modern surgical techniques in Taiwan.

Adding to the diverse narratives, Clin Asst Prof See Xinyin Anna discussed her fellowship in Advanced Head & Neck Surgical Oncology at Chang Gung Memorial Hospital, Linkou. Her account of cutting-edge surgical procedures and cancer treatments highlighted the innovative strides in her field.

The event also featured an engaging Q&A session moderated by Clin Assoc Prof Toh Song Tar, Senior Consultant & Head of Otorhinolaryngology – Head & Neck Surgery, SGH.

As the evening concluded, Clin Assoc Prof Winson Tan delivered closing comments, expressing appreciation for the speakers, moderator and participants from six sub-specialties across four institutions, in fostering professional growth and enhancing opportunities to share and connect within the Surgery ACP.

Reflecting on the evening, all attendees indicated that the event was well-structured, and that they would recommend it to their colleagues.

Encouraging feedback in written comments:

- o Good chance to interact and share experiences and thoughts about training and options.
- o It's fun to see how other systems work.
- o Nice venue, good timing. Would be interested to see other Asian countries.
- o The themed sharing by region is a good idea!

We look forward to the next SITE event in Nov 2024 and the continued exchange of knowledge and inspiration!



Surgical International Training Experience (SITE) Sharing Event (5th Run)

Friday
MAY
17TH

Fellowships in Asia

6.00pm to 8.30pm @ CALI Ascott Raffles Place,
2 Finlayson Green, Level 2, Singapore 049247

Scan the QR Code or click [here](#) to register
Registration is required for this event



Clin Asst Prof Yap Hao Yun
Consultant, Vascular Surgery, SGH

My Journey into Covid-19 China
Fellowship: Advanced Open and Endovascular Vascular Surgery, Zhongshan Hospital, Shanghai, China, 2023
"... Entering China during the Covid-19 when China was closed to the rest of the world, and what I learned from their work ethic and what is considered 'busy' ..."

Clin Asst Prof Alvin Tan
Consultant, Surgery, SKH

歡迎光臨 – Welcome To Taiwan
Fellowship: Minimally Invasive HPB Surgery, Far Eastern Memorial Hospital, New Taipei City, Taiwan, 2023
"... Improved my fluency in Traditional Mandarin Chinese and Minnan Hokkien; learnt about minimally invasive HPB surgery with a focus on laparoscopic liver resections; Spent time in OT; participated in local and international HPB conferences ..."

Clin Asst Prof Anna See
Consultant, Otorhinolaryngology – Head & Neck Surgery, SGH

Head & Neck Surgical Oncology Fellowship in Taiwan
Fellowship: Advanced Head & Neck Surgical Oncology, Chang Gung Memorial Hospital, Linkou, Taiwan, 2023
"... Year-long fellowship with focus on advanced oral cavity and oropharyngeal cancer resections, and adoption of transoral laser techniques in ablative procedures for laryngeal cancers ..."

Q&A session moderated by
Clin Assoc Prof Toh Song Tar
Senior Consultant & Head, Otorhinolaryngology – Head & Neck Surgery, SGH

Event hosted by
Clin Assoc Prof Winson Tan
Deputy Vice Chair (FAPD), Surgery ACP
Senior Consultant, Surgery, SKH

A Journey of Dedication in Urology

The conferment of Clinical Associate Professor by Duke-NUS Medical School marks an academic milestone for me, and I am grateful for such recognition. My journey into research began unexpectedly when I joined Urology and was given my first project by my mentor, Clin Assoc Prof John Yuen, during my tenure as a medical officer.

The culture of research runs deep in Urology. Over the years as a trainee, it has become not only fun and fulfilling but also a way to build new friendships through collaboration. Collaboration, I believe, is crucial for elevating our standing as an internationally acclaimed academic medical center.

Research has added color to the humdrum of our daily lives, allowing us to ask questions and potentially improve the way we provide care for our patients. It is a mental discipline and a continuous journey, one that I am only just starting on.

I salute mentors who have dedicated so much to science and inspired my generation. I sincerely thank my department, SingHealth Duke-NUS Surgery ACP, and SingHealth Duke-NUS AMC for their guidance and support throughout my academic journey.

I look forward to continuing this journey of discovery and collaboration, and to contributing further to the field of Urology and academic medicine.



**Clinical Associate Professor
Chen Kenneth**

Senior Consultant,
Department of Urology,
SGH & NCCS

Navigating the Future of Healthcare - A Journey in Digital Health

My journey as a digital health practitioner and cyberpharmacist has been uniquely challenging and rewarding. During my PhD programme in pharmaco-informatics — a relatively unknown field at the time — I lacked direct supervision. Instead, I had supervisors in bioinformatics, clinical practice, and medicinal sciences, who provided diverse insights for me to integrate their perspectives into my research. I self-learned various skillsets, including programming, technology design, human-computer interaction, data science, and machine learning, often self-funding my own upskilling. This period of self-motivated learning and exploration taught me the importance of resilience and interdisciplinary thinking.

Embracing the challenges of an emerging field, I attended many conferences, including self-funding several, to present my work and gain insights into other clinical and technical domains. This proactive approach enabled me to publish extensively and establish a foundation for my career in digital health. I still remember my overseas mentors encouraging me to carve out my niche in what was then known as e-Health, which became crucial in developing my focus and direction.

To aspiring clinicians who want to be in this interesting field, I encourage you to explore and innovate beyond traditional boundaries. Don't be afraid to embrace the less trodden path with passion, tenacity, and openness. Nowadays, there are many more opportunities for collaboration and mentorship in healthcare innovations. Although venturing into the unknown can be daunting, it's also rewarding. By defining your niche and persevering through challenges, your unique contributions can significantly shape the future of healthcare.

I am grateful to SingHealth Duke-NUS Surgery ACP for the support in my Clinical Associate Professor appointment process. As I grow my role in the ACP, I am excited to explore new collaborations and nurture future leaders in digital health. I invite clinicians who are passionate about innovation and digital transformation to connect with me. Together, we can expand our horizons and explore new frontiers in clinical education and practice.



**Clinical Associate Professor
Kevin Yap (PhD, CBDSA, CME, CPE)**

Pharmacy Practice Manager & Serious Games Lead
(Pharmacy Division), SGH
Serious Games, Extended Reality & Metaverse Lead,
Allied Health Division Digitalization & Innovation Unit
(AHDDIU) Special Interest Group, SGH
Pharmacy Co-Lead (Develop), SingHealth Allied
Health and Pharmacy Data, Innovation, Technology &
Transformation (DIT2) Taskforce, SGH
Adjunct Associate Professor (Digital Health), School of
Psychology and Public Health, La Trobe University

PhD - Doctor of Philosophy
CBDSA - Certified Big Data Science Analyst
CMETM - Certified Metaverse Expert TM
CPETM - Certified Prompt Engineer TM

★ Congratulations on your appointments and promotions! ★

**Academic Appointment & Promotion
of Surgery ACP Faculty at Duke-NUS
(August to December 2023)**

Clinical Assistant Professor



Chua Wei De Kenneth
Senior Audiologist,
Audiology, CGH



Ong Hwee Kuan
Senior Principal Physiotherapist
(E), Physiotherapy, SGH

Clinical Instructor



Lim Tze Ying Benjamin
Associate Consultant,
Urology, SKH

Lead Education Associate



Nathalie Grace Sy Chua
Specialist Pharmacist,
Pharmacy-Inpatient, SGH



Savitha Hosangadi Kamath
Senior Principal Audiologist (C),
Audiology, CGH

Senior Education Associate



Liam Li Wee Joanne
Nurse Clinician (APN),
Nursing Clinical Services, KKH



Meng Chunli
Nurse Clinician (APN),
Advanced Practice Nurse
Development, CGH



Sonia Jaya Sankaran
Audiologist,
Audiology Service, KKH



Teng Yu Hui Gladys
Senior Principal
Occupational Therapist,
Occupational Therapy, SGH



Wu Liping
Nurse Clinician II (Specialty Care),
Advanced Clinical & Specialty
Nursing, SKH

**Academic Appointment & Promotion
of Surgery ACP Faculty at Duke-NUS
(January to June 2024)**

Clinical Associate Professor



Chen Kenneth
Senior Consultant,
Urology, SGH & NCCS



Yap Yi-Lwern Kevin
Pharmacy Practice Manager II,
Pharmacy-Administration,
SGH

Clinical Assistant Professor



Tan Hiang Jin
Associate Consultant,
Surgery, CGH



Leong Qi Hui Faith
Associate Consultant,
Surgery, SKH

Clinical Instructor

Clinical Instructor



Chia Choon Kwang Adrian
Associate Consultant,
Vascular Surgery, SGH



Chang Wee Ting Cassandra
Principal Clinical Pharmacist,
Pharmacy-Retail, SGH

Adjunct Research Fellow (ARF)



Tung Yi Min Joshua
Resident, Urology Residency,
SingHealth

Lead Education Associate



Tan Xiao Yen Joanna
Principal Dietitian,
Dietetics, SKH



Liew Yixin
Specialist Pharmacist,
Pharmacy-Inpatient, SGH

Senior Education Associate

Education Associate II



Gooi Siao Ching
Principal Clinical Pharmacist,
Pharmacy, CGH



Lee Hui Bing
Dietitian, Dietetics,
SKH