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SURGERY

SurgeOn

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MASTER CLINICIAN AWARDS 2023

An inspirational close-up with our Master Academic Clinician, Professor Pierce Chow:



Professor Pierce Chow

Vice Chair (Research), Surgery ACP;
NMRC-funded Clinician Scientist;
Inaugural Programme Director, PhD Programme in Clinical Science, Duke-NUS Medical School;
Surgical Director, Comprehensive Liver Cancer Clinic, National Cancer Centre Singapore (NCCS);
Senior Consultant, Department of Hepato-pancreato-biliary (HPB) and Transplant Surgery, Singapore General Hospital (SGH) and National Cancer Centre Singapore (NCCS)



WHAT IS THE DIFFERENCE BETWEEN A REGULAR CLINICIAN AND AN ACADEMIC CLINICIAN?

This is a question that I am asked often, and is something that can be very confusing for the young doctors. After all, a regular clinician in institutional practice also teaches students in his clinic and also publishes some papers. The main difference lies in what the measure of professional success is.

The measure of professional success for a **Regular Clinician** is having a successful clinical practice – while he teaches in his clinic, he is not expected to conceptualise and deliver teaching programmes nor mark exam papers. Nor is he expected to be successful in bringing in research grants, lead or develop research programmes and supervise and mark research theses.

The measure of professional success for an **Academic Clinician** is, however, all three. He needs to have a successful, albeit more niche and smaller, clinical practice. He also needs to be part of a core team that has successfully conceptualised and delivered outstanding teaching programmes. In addition, he also needs to be able to successfully bring in research grants, develop research programmes, publish high-impact factor papers and supervise research students. An outstanding Academic Clinician is expected to excel in all three.

WHAT INSPIRES YOU TO BE AN ACADEMIC CLINICIAN?

The main reason that inspires me to be an Academic Clinician is the gradual realisation that patients, and ultimately society, need Academic Clinicians if they are to achieve better clinical outcomes.

Only a practicing clinician can identify the bottlenecks in clinical practice that prevent better clinical outcomes in patients. We need Academic Clinicians to identify and articulate these needs and conceptualise research programmes to address them, in collaboration with bench scientists, bioinformaticians and other clinicians and clinician scientists.

As scientific knowledge becomes more advanced, there is increased realisation that most common diseases are a result of multiple aetiologies and require multi-disciplinary approaches to achieve breakthroughs. Academic Clinicians are required to lead these multi-disciplinary teams. In addition, Academic Clinicians are required to transmit this knowledge to medical students, residents and the public so that patient outcomes may be improved.

WHAT QUALITIES DISTINGUISH THE ACADEMIC CLINICIAN AS A ROLE MODEL?

First, he/she has to demonstrate clarity of vision – what needs to be done to improve patient outcomes in his/her specialty. He/she must then be able to successfully articulate these, lead the way to get these done and convey this knowledge to the current and future generations of clinicians. Alternatively, or in addition, he/she must be able to guide the institution in that direction.



WHO WERE YOUR CLINICIAN ROLE MODELS AND WHAT QUALITIES DID YOU ADMIRE IN THESE INDIVIDUALS?

Two of my clinician mentors come to mind. The first is Professor Soo Khee Chee, inaugural Director of the National Cancer Center Singapore (NCCS) and former Head of General Surgery who articulated what Academic Surgery should be and encouraged a number of surgeons along this path. Some of them eventually became National Medical Research Council (NMRC) Clinician Scientists, including Professor Gopal Iyer, Dr Johnny Ong and myself. He also helped me create the Asia-Pacific Hepatocellular Carcinoma (AHCC) Trials Group, which remains one of the greatest academic strategic assets we have today. He also, of course, taught a whole generation of highly competent surgeons.

The other is Professor Russell Strong in Australia, with whom I did a clinical fellowship in liver transplantation. He was one of the pioneers in liver transplantation who clearly saw this unmet need in patients with liver failure. He did much of the research and developed many of the techniques that make liver transplantation so efficacious today. Historically, he was the first surgeon to have successfully carried out a living-related liver transplant and the results were published in NEJM. One day, I hope to publish in NEJM too.

WHAT IS YOUR GREATEST CAREER ACCOMPLISHMENT AS AN ACADEMIC CLINICIAN?

I would divide them into teaching and research accomplishments. My greatest research achievements are firstly, to have created the multi-disciplinary research platform that houses the NMRC National Flagship Programme in Liver Cancer, which eventually evolved into the Singapore Liver Cancer Consortium. Today, this consortium conducts the AHCC10 (ELEGANCE) cohort study and the PLANet Flagship Programme in Liver Cancer. This has become a whole-of-nation effort that has already published breakthrough science and will continue to do so.

The second is to have created the Asia-Pacific Hepatocellular Carcinoma AHCC trials group, which is currently conducting the AHCC09 (STRATUM), ELEGANCE, AHCC11 (PROSECT) and AHCC12 (EMPHASIS) prospective cohort and therapeutic studies. Through these, Singapore has punched above its weight in Academic Medicine.

My greatest educational achievements are to have been the inaugural Course Director of the Human Structure and Function course at the new Duke-NUS Medical School Singapore in 2007 and to have been the inaugural Programme Director of the PhD Program in Clinical and Translational Science also at Duke-NUS Medical School since 2018. The PhD Programme has graduated five students, among whom three have clinched the NMRC Clinician Scientist Awards. I was also the inaugural President of the College of Clinician Scientists, Academy of Medicine Singapore.

WHAT HAS BEEN YOUR BIGGEST CHALLENGE AS AN ACADEMIC CLINICIAN?

My biggest challenge as an Academic Clinician is to convince non-Academic Clinician colleagues that our institution has become an Academic Medical Centre and that Academic Medicine is aligned with the mission of the institution. The other challenge is to bring about changes in institutional structures and practices so that Academic Medicine can thrive and flourish in our environment.

HOW DO YOU JUGGLE TIME BETWEEN CLINICAL AND ACADEMIC ACTIVITIES?

That is a great hurdle, and I adopted a two-pronged approach. The first is to converge - converge clinical activities, research and teaching on to a common point, which in my case is liver cancer. My clinical work, research and teaching all focus on liver cancer, liver surgery, liver physiology, liver anatomy, and so on. That allows me economies of time and effort.

The second prong is just to accept the fact that I will be working harder than my non-Academic Clinician colleagues as I am essentially doing three jobs at the same time.

WHAT DOES BEING A MASTER ACADEMIC CLINICIAN MEAN TO YOU?

Being conferred the Master Academic Clinician title is a validation of my work by the institution. It tells me that what I do is aligned with the mission of the institution, and signals to the rest of the clinical community that this is what an Academic Clinician should do.

IF YOU COULD DO ONE THING, LEAVE ONE MARK, IN YOUR PURSUIT AS AN ACADEMIC CLINICIAN, WHAT WOULD IT BE?

That would be to train many other Master Academic Clinicians who will carry on the important mission of an Academic Medical Centre after I am gone.

WHAT ADVICE DO YOU HAVE FOR BUDDING ACADEMIC CLINICIANS?



The institution is serious about being an Academic Medical Centre. Don't give up!

An inspirational close-up with our Master Academic Clinician, Professor London Lucien Ooi:



Professor London Lucien Ooi

Associate Dean, Admissions, Recruitment and Financial Aid, Duke-NUS;
Senior Consultant, Department of Hepato-pancreato-biliary (HPB) and Transplant Surgery, Singapore General Hospital (SGH) and National Cancer Centre Singapore (NCCS);
Professor, Surgery ACP, SingHealth Duke-NUS AMC;
Professor, Oncology ACP, SingHealth Duke-NUS AMC



WHAT INSPIRES YOU TO BE AN ACADEMIC CLINICIAN?

I've always had an interest in teaching since my days in medical school, when I could already see the value of knowledge sharing with patients and peers. Through this, I also realised there are many areas lacking in clinical practice, hence the need to make new discoveries and change practice and processes. This led me to understand that if I wanted to make a difference, I need to be involved not just in education, research and innovation, but also leadership and administration. I look back on my journey now and am proud that I have moved on from Learner to Doer to Teacher and now, in my senior years, to Enabler.

WHAT QUALITIES DISTINGUISH THE ACADEMIC CLINICIAN AS A ROLE MODEL?

I suppose the main feature of an Academic Clinician is the spirit of inquiry and continual pursuit of what can be done better for our patients, rather than just treating them the way one has been taught.

WHO WERE YOUR CLINICIAN ROLE MODELS AND WHAT QUALITIES DID YOU ADMIRE IN THESE INDIVIDUALS?

I grew up in an era when clinical practice was key, and the recognition of an academic clinician did not really exist. In a sense, it was difficult to find a role model in our system then, and the effort and sacrifice needed to get my doctorate, publish papers, teach and train others all came at a price as these activities were not recognised by the institutions then as being relevant to employment.

WHAT IS YOUR GREATEST CAREER ACCOMPLISHMENT AS AN ACADEMIC CLINICIAN?

I guess that would be the accomplishments of those whom I have trained, nurtured, mentored or enabled in the academic journey. It is certainly worthwhile to see how many of those I have had the privilege to be involved with blossom in their own right in various areas of academic medicine.

WHAT HAS BEEN YOUR BIGGEST CHALLENGE AS AN ACADEMIC CLINICIAN?

In the early days, the biggest challenge would have been getting support to pursue an academic agenda, not just from hospital leadership but also from peers who may have seen this pursuit as counter-productive to the system. Things have certainly come a long way with the establishment of the SingHealth-Duke-NUS AMC and the setting up of ACPs, and I was very honoured to be the inaugural Chair of the Surgery ACP in 2012.

HOW DO YOU JUGGLE TIME BETWEEN CLINICAL AND ACADEMIC ACTIVITIES?

This will always be a struggle for busy clinicians, especially surgeons. It all comes down to time management and how much priority one places in the pursuit of academia. In truth, the four pillars of academic medicine are deeply intertwined – clinical practice can only improve with research and innovation, but administration and leadership are needed to implement these.

WHAT DOES BEING A MASTER ACADEMIC CLINICIAN MEAN TO YOU?

It is an honour to be recognised as such after a long journey of over 30 years. My journey into academic medicine was out of pure interest and passion, and whilst the accolades are much appreciated, these would not have been the reasons for pursuing academia.

IF YOU COULD DO ONE THING, LEAVE ONE MARK, IN YOUR PURSUIT AS AN ACADEMIC CLINICIAN, WHAT WOULD IT BE?

I guess the best legacy one can leave behind is in the lives of others that we have touched in some way – be it patients through direct clinical care or discoveries in research, or colleagues through training and mentoring, or the population as a whole through systems change and leadership.

WHAT ADVICE DO YOU HAVE FOR BUDDING ACADEMIC CLINICIANS?

If this is truly your passion, do not be afraid to embrace it – one is never too young or junior to start the academic journey. An academic clinician is more recognised now and certainly finding mentors and fellow academic clinicians makes the journey easier as a collective.



ENGAGE AND CONNECT TO TEACH



Head and neck cancers can often be very debilitating so it is very heartening to see patients who are able to maintain a positive spirit throughout their treatment journey. I was also very fortunate to have inspiring seniors who motivated me to take on the sub-specialisation.

Having received great guidance and mentorship during my medical school and surgical training, I hope to do my part in paying it forward and passing on the knowledge and skills to my students.

Two-way engagement

It is with much gratitude and a deep sense of responsibility that I took on the honour to be designated the Deputy Vice-Chair in Education since January 2023. I have always enjoyed interacting with my students to see how I can engage and motivate them. I look forward to getting feedback from both the learners and faculty, to work on issues they face, take up suggestions for improvements, or explore new directions to take in developing our ACP's education profile.

Now that pandemic habits such as virtual learning have been formed, we need to see how we can ensure personal connections are maintained in this new world. One of the biggest challenges we



Dr Natascha Ekawati Putri,
Deputy Vice-Chair, Education,
Surgery ACP; Consultant, Head
and Neck Surgery, Singapore
General Hospital & National
Cancer Centre Singapore



face as educators is how to help make appropriate use of technology such as artificial intelligence and how to deal with misinformation. Separating the wheat from the chaff and learning how to apply what has been learnt are all important skills we need to impart to the next generation.

A community of practice

One of my priorities is to build up a community of practice—to identify like-minded colleagues who are interested in working together to nurture our young. I feel that there is more awareness and support now to develop and groom talents for clinician-plus roles.

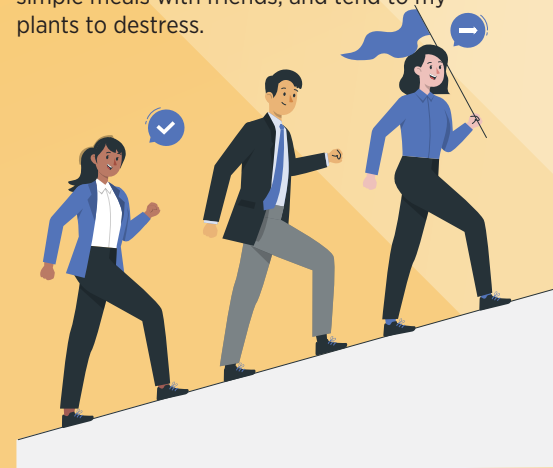
I think it is to my advantage that my time in the trenches of training is fairly recent. I hope that having youth, energy, and passion on my side will help to flatten the hierarchy. For example, it might be easier for me to approach the newly-graduated residents and chat about their interest in taking on educator roles. When senior leaders do it, their efforts may be perceived more as 'arrows' to be dodged!

New teaching models

In my past surgical training, we relied on the old adage of 'see one, do one and teach one'. However, there is growing

evidence of other better teaching and learning models based on more structured conceptual frameworks. I feel that those of us in surgical education can learn from our medical, nursing, and allied health colleagues who may be more well-versed and experienced in adapting such models in their teaching.

My advice to those just starting on their surgical journey is to remember to take a step back during the tough times and remind ourselves of our original intentions and hang on to our motivations. I find that this helps me get through the challenging days. I also go for exercise classes, share simple meals with friends, and tend to my plants to destress.



DEVELOPING THE INDIVIDUAL



Having gone through our professional development system, I am well aware of the challenges that residents and surgeons face.

Experience on the ground

I too have experience in dealing with obstacles such as red tape in exploring and developing my professional interests.



Dr Winson Tan Jianhong,
Deputy Vice-Chair, Faculty
Affairs and Professional
Development (FAPD), Surgery
ACP; Senior Consultant,
Department of General Surgery,
Colorectal Service, Sengkang
General Hospital (SKH)



After completing my training under the inaugural SingHealth Residency Programme, I joined the Singapore General Hospital (SGH)'s Colorectal Surgery Department where I spent many fruitful years. I then heeded the call to help set up the General Surgery Department at SKH.

I find my work in colorectal surgical oncology and acute care surgery very satisfying. I also enjoy my other roles as an educator, mentor and in clinical research.

As FAPD Deputy Vice-Chair since January 2023, I hope to pin down gaps in the

professional development of our faculty. Besides identifying gaps, I look forward to working with my colleagues to strengthen support for faculty and colleagues.

A good mix of views

I feel that it is imperative to personalise the professional development of our faculty based on their individual strengths and weaknesses. While this is not easy to do, given our large numbers, I think it is crucial to know the diverse needs and wants of our faculty.

This requires representation from each sub-specialty for FAPD to better know their people so that we can effectively allocate the resources needed to support them. Having a mix of senior and junior representatives across institutions will be ideal in presenting us with diverse views.

Our current healthcare structure is so sub-specialised that each specialty mainly focuses on its area of expertise. This means that our surgeons do not generally have many opportunities to interact with members beyond their respective

sub-specialty. Hence, more engagement and collaboration are needed.

Current affairs and future challenges

Besides getting support from our ACP in our professional development, I think it is important for us as surgeons to stay abreast of the times. Keeping up with the latest trends in technology or business, for instance, is useful.

The pandemic taught us that technology can replace a lot of our healthcare work. While our clinical expertise cannot be replaced, we need to continue learning how to harness technology, such as artificial intelligence, to help us deliver better outcomes for our patients.

Personally, I read widely to keep up with current affairs and future challenges. While medical journals and conferences keep us up-to-date in our respective specialties, I like having multi-dimensional sources of information. To me, reading news, even business and finance news from Bloomberg and The New York Times, can provide insights that can



perhaps be applied to medicine now or in the future.

Like most healthcare professionals, I have to juggle my time between work and family. To me, the family provides the best support system for an individual. My wife—who is a gynaecologist in KK Women's and Children's Hospital—and I are kept busy and fulfilled by our two young children.

MAJOR NEWS:

SURGERY ACP FAMILY MEETING FAMILY MEETING HAS RETURNED AFTER A HIATUS DUE TO COVID-19 RESTRICTIONS!

Held at Sengkang Community Hospital's auditorium on a Wednesday evening, the Family Meeting was attended by over 50 members from across SingHealth institutions, including colleagues from the nursing and allied health disciplines. The Family Meeting aimed to foster future collaborations by updating the participants on current achievements, upcoming initiatives, as well as future plans of the different domains in Surgery ACP. Prof Hsu Pon Poh, Chairman, Medical Board, SKH and Assoc Prof Henry Ho, Academic Chair, SURG ACP jointly kick-started the event by giving a cordial welcome to our participants.

Moderated by Clin Asst Prof Winson Tan, Deputy Vice Chair, Faculty Affairs & Professional Development (FAPD), the first presentation on Global Surgery Programme (GSP) began. Adj Asst Prof Foo Fung Joon, Chair, GSP, shared the past activities and achievements in GSP and some of the goals GSP would like to achieve by 2030, which include having a more thematic approach in developing a Clinician+ track.

Clin Assoc Prof Benita Tan, Vice Chair, FAPD then introduced the activities that FAPD has organised last year, such as Surgical International Training Experience (SITE) sessions and Joy at Work initiatives. These aimed to encourage more interactions among surgeons across campuses in Surgery ACP.

Prof Pierce Chow, Vice Chair, Research, then presented the achievements and current initiatives in the Research domain, reporting that a better structure in training, mentoring and support in the grant application and reporting processes have been put in place to address the missing gaps.

The last agenda for the presentation segment was led by Clin Assoc Prof Yuen



Heng Wai, Director, Surgical Technology & Innovation, who shared that the Innovation domain was looking to build support structures through mentorships and workshops to assist Surgery ACP members with their proposals.

The Family Meeting drew to a close with Assoc Prof Henry Ho, Academic Chair of Surgery ACP, thanking the participants for their time, the speakers for their insightful presentations and Prof Hsu Pon Poh for gracing the event. He looked forward to future collaborations in Surgery ACP.

COMMENTARY ON WHERE THE METAVERSE MEETS SURGERY

What is the metaverse?

Interestingly, while many of us claim that we know what the metaverse is, not everyone has the same idea of what it looks like. In simple terms, the metaverse is a collective shared open space in which the physical and digital worlds are virtually enhanced, such that it offers users an immersive experience.

There are several characteristics of the metaverse that have been described in the literature. These characteristics can be classified into 4 main types:

- **Augmented Reality (AR):** This technology superimposes a virtual object in the real-world or physical environment (e.g. Pokémon Go);
- **Lifelogging:** This technology captures, stores and shares everyday information and experiences of users (e.g. Facebook, Instagram, Fitbit);
- **Mirror Worlds:** This technology reflects the real world, but additionally integrates external environmental information (e.g. Google Maps, Zoom); and
- **Virtual Worlds:** This technology is what we know of as virtual reality (VR), which involves virtual objects in a virtual environment, where users interact and explore through avatars (e.g. Oculus headsets).

In fact, many of the isolated activities we currently know of that use VR and AR in healthcare and healthcare education are envisioned to eventually take place in the metaverse!

Applications of metaverse technologies in surgery and healthcare

The surgical metaverse is envisioned to incorporate a combination of digital technologies, including AR, mixed reality (MR, where users can navigate and interact with virtual and physical objects and environments in real time, usually in the form of holograms), artificial intelligence (AI) and 5G networks. Already, various academic and healthcare institutions are exploring MR technologies in attempts to tap into the metaverse. A recent review had categorized MR surgical applications into those for: (i) preoperative and interventional planning,

(ii) intraoperative and interventional guidance, and (iii) surgical and interventional training and education. The potential benefits of using MR in surgery include improved visualisation of structural anomalies, improved surgical planning and execution, improved clinician-patient communication and patients' understanding of their conditions, decreased patient anxiety, facilitating real-time interactions and collaborations, improved surgical confidence and easing of the learning curve in surgical education and training, among others.

Locally, the National University of Singapore (NUS) Yong Loo Lin School of Medicine collaborated with the National University Health System (NUHS) and Microsoft last year to use holographic MR technology to train medical and nursing students on clinical procedural skills like inserting a cannula and inserting catheters in urinary tracts. This was following the use of the MR technology in NUHS to aid neurosurgeons locate brain tumours in brain surgeries. Previously, the Singapore General Hospital (SGH) had also used MR to train nurses on trauma resuscitation. But has healthcare and surgery entered the metaverse?

In fact, it has!

In 2021, the Seoul National University (SNU) Bundang Hospital introduced a

training course on lung cancer surgery on a metaverse platform. Using their smart operating room armed with high-resolution 360-degree VR cameras, a surgery was broadcast to the participants of the 29th Online Conference of the Asian Heart and Thoracic Surgery Society, where they viewed lectures and collaborated in discussions about the surgery in real-time. Closer to home, the SGH Pharmacy Department, in collaboration with the School of Psychology and Public Health at La Trobe University (Australia), also started exploring the metaverse as part of their continuing professional education last year. Participants could navigate the Eduverse (educational metaverse), which was designed as a virtual art gallery, synchronously as part of a "guided tour" or asynchronously at their own time to explore the portraits, mini-lecture presentations and three-dimensional (3D) artifacts related to the topic of telehealth and virtual care.

The metaverse is not yet matured for surgery, but its potential for use in clinical practice and education/training is indeed exciting. It will take many more years before the metaverse is adopted mainstream. However, we should expect to see more of such healthcare applications come to pass as we transition into the new post-COVID digital era. The metaverse will be an intriguing place to navigate.

Dr Kevin Yap, PhD

Pharmacy Practice Manager
(Pharmacy Department), Singapore
General Hospital
Adjunct Senior Research Fellow
(School of Psychology & Public
Health), La Trobe University
Co-Editor-in-Chief, International
Journal of Digital Health



Dr Yap was recently certified as a Certified Metaverse Expert™ by Blockchain Council



The Eduverse by the SGH Pharmacy Department.

INNOVATION:

CLINICAL INNOVATORS FOCUS GROUP MEETING:

24 FEBRUARY 2023

The inaugural SACP Clinical Innovators Focus Group Meeting was held on Friday, 24 February 2023 at The Innovation Centre (TIC). We were pleased to welcome attendees from across professional groups, who engaged in lively discussions on upcoming SACP programmes, such as the inaugural SACP Innovation Workshop 2023.



Led by Associate Professor Yuen Heng Wai, Director for Surgical Innovation & Technology for Surgery ACP, the Clinical Innovators Focus Group, comprising clinicians from Surgery ACP, was formed by clustering members based on their interests, grant proposal submissions and attendance at the Singapore BioDesign

course – a 5-day bootcamp where participants are exposed to a deeper understanding of the Biodesign methodology, product development, regulatory regulations, intellectual property, clinical trial planning, business

planning and market access. The focus group aims to encourage interest and improve grant application successes for the Clinical and Systems Innovation (CSI) Grants as well as the Innovation Seed Grants (ISG).

RESEARCH:

SACP / Division of Surgery and Surgical Oncology Research Seminar

- 17 March 2023

The first SACP / Division of Surgery and Surgical Oncology Research Seminar was held at Paradox Singapore Merchant Court at Clarke Quay. This was a new initiative led by Professor Pierce Chow, Vice-Chair, Research. At the introductory meeting, we heard from the six Department Research Leads (Dr Jolene Wong, Dr Darren Chua, Dr Lim Chin Hong, Dr Sachin Mathur, Dr Kenneth Chen and Dr Lionel Chen) who shared about their research plans.

The monthly research seminars aim to identify gaps in current processes for grant applications and reporting, as well as to provide a platform to guide attendees and strengthen their research. Presenters are required to share about their research updates and/or grant applications for critique by their peers and mentors. All Surgery ACP members are welcome to sit in for future seminars.



MULTI-SITE CLINICAL TRIAL TO ASSESS NOVEL LIVER CANCER TREATMENT

Prof Pierce Chow

Academic Vice Chair (Research),
Surgery ACP
Senior Consultant, DSSO/NCCS
Professor and Program Director,
PhD Programme in Clinical
Sciences, Duke-NUS Medical School



A multi-national, investigator-initiated and industry-supported randomised controlled clinical trial was launched to test the efficacy of a novel radiotherapy and immunotherapy combination that aims to improve health outcomes for patients with primary liver cancer, hepatocellular carcinoma (HCC). The trial is led by Professor Pierce Chow, Protocol Chair and Senior Consultant, Department of Hepato-Pancreato-Biliary and Transplant Surgery, Division of Surgery and Surgical Oncology, SGH and NCCS. Prof Chow leads a multi-disciplinary team in SingHealth and NUH, comprising nuclear medicine physicians, interventional radiologists, medical oncologist and radiation oncologists to conceptualise the study. They then formed the Steering Committee of the study.

The AHCC09 (STRATUM) study (NCT05377034) has received S\$19.2 million in funding from industry partners F. Hoffmann-La Roche Ltd and Sirtex Technology Pty Ltd, with additional in-kind contributions for therapeutics and devices. The study is being conducted across up to 13 sites and four countries in the Asia Pacific region, and has begun enrolment at the National Cancer Centre Singapore (NCCS). This clinical trial marks a noteworthy commitment from the industry for an investigator-initiated research study.

HCC is the third most common cause of cancer deaths in males and fifth most common cause in females in Singapore. Around 46% of patients with HCC in the Asia-Pacific region present with locally advanced HCC at diagnosis and this makes up the biggest sub-group of HCC patients. Locally advanced HCC is heterogeneous and treatment is challenging and there is an urgent need to seek more efficacious treatments to improve patient outcomes.

The current standard-of-care treatment for locally advanced HCC is local delivery of chemotherapy to the tumour using a procedure called trans-arterial chemoembolisation (TACE), or radiation-coated microspheres delivered via blood vessels directly to the tumour, in a procedure called Yttrium-90 radioembolisation (Y90-RE). Although systemic immunotherapy has been used to treat advanced HCC with promising outcomes, only approximately 30% of HCC patients demonstrate radiological response to immunotherapy. An example of approved immunotherapy for treatment of HCC is the combination therapy atezolizumab plus bevacizumab.

Research carried out at NCCS and subsequently in Fondazione IRCCS Istituto Nazionale dei Tumori in Milan, Europe provided scientific evidence that Y90-RE therapy leads to significant immune-modulation and increased number of immune cells with anti-tumour activity at the tumour. This phenomenon potentially enhances the efficacy of immunotherapy for HCC patients. Building on those findings, the same team at SingHealth has launched the AHCC09 (STRATUM) randomised controlled trial to compare the efficacy and safety of Y90-RE followed by the systemic immunotherapy combination drugs, atezolizumab plus bevacizumab against a control group with Y90-RE followed by placebo.

The double-blind, placebo-controlled, Phase II clinical trial aims to enroll 176 patients with locally advanced HCC across up to 13 sites in Singapore, China, Taiwan and South Korea. Patients enrolled have large HCC that is not treatable by surgical resection. A positive endpoint of the study is how many of these patients can be downstaged to resection or

transplantation. The study started in October 2022 and will run for two years and one month, with data analysis being conducted at 12 and 18 months to evaluate early efficacy and safety of the treatment combination, and follow-up analysis after the study's completion to evaluate long-term efficacy and safety.

This was adapted from SingHealth NCCS Press Release ['Multi-Site Clinical Trial To Assess Novel Liver Cancer Treatment With S\\$19.2 Million Industry Support - SingHealth'](#).



UNDERGRADUATE EDUCATION:

WELCOMING NEW SURGERY PROGRAMME LEADS AND DEPARTMENT EDUCATION REPRESENTATIVES IN SURGERY ACP

Surgery ACP is delighted to share the appointment of new Programme Leads and Department Education Representatives as our pool of Surgical Education faculty continues to grow.

We would also like to express our deep appreciation to all the faculty who have contributed their time and effort to enhancing Surgical Undergraduate Education in Surgery ACP.

SKH Surgery Programme Leads

NUS-YLL Posting Lead (Surgery) M3 and M5 SIP Posting



Clin Asst Prof Lester Ong
Surgery, SKH

NTU-LKC Clinical Block Lead (Surgery) Y3 Surgery, Y5 Integrated Care Surgery & Y5 SAP Posting



Clin Asst Prof Tousif Kabir
Surgery, SKH

NTU-LKC Posting Lead (Urology) Y3, Y5 Integrated Care Surgery & Y5 SAP Posting



Clin Asst Prof Thomas Chan
Urology, SKH

NTU-LKC Posting Lead (Otorhinolaryngology- H&N Surgery) Y3 ENT Posting



Clin Asst Prof Charn Tze Choong
*Otorhinolaryngology-
Head & Neck Surgery, SKH*

CGH Surgery Programme Leads

NUS-YLL M3 Surgery and M5 Surgery & SIP Posting



Clin Asst Prof Kao Nern Hoong
Surgery, CGH

Duke-NUS Y4 ENT Posting



Dr John Loh Ming Ren
*Otorhinolaryngology-
Head & Neck Surgery, CGH*

NTU-LKC Y4 ENT Posting



Dr Maria Judith Pang Cui-Ying
*Otorhinolaryngology-
Head & Neck Surgery, CGH*

KKH Surgery Programme Leads

NUS-YLL M3 Surgery and M5 Surgery & SIP Posting



Clin Asst Prof Ong Han Lim
Paediatric Surgery, KKH

NTU-LKC Y3 Clinical Posting and Y5 Integrated Care Surgery



Clin Assoc Prof Caroline Ong
Paediatric Surgery, KKH

SGH Surgery Programme Leads

NUS-YLL M2 Clinical Skills Foundation Programme



Dr Christina Yang Shi-Hui
Breast Surgery, SGH

NUS-YLL M3 Surgery Posting



Dr Khor Shao Nan
Colorectal Surgery, SGH

SGH Department Education Rep



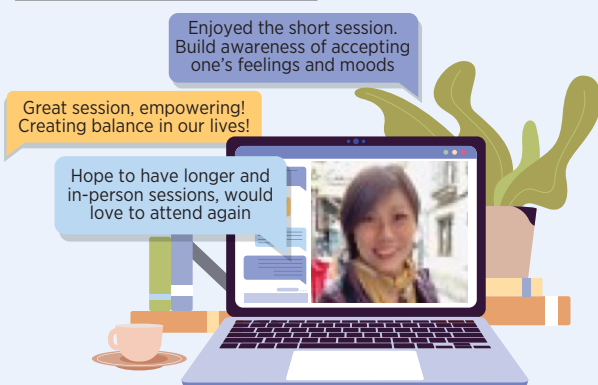
Dr Lim Ee Jean
Urology, SGH



Dr Koo Chee Hoe
Colorectal Surgery, SGH

POSTGRADUATE:

SIG RESIDENCY WELLNESS TALK



Surgery in General (SIG) Residency was privileged to have Associate Professor Mabel Yap from MOH, PTAS, to speak with our residents on mental wellness; 'Healthcare providers on managing stress and anxiety with mindfulness and self-compassion'.

The session was well attended by SIG Residents, SIG Core Faculty, ENT faculty and residents, and Urology faculty and residents on:

Date: 16 November 2022, Wednesday

Time: 7:45am- 8:45am

Venue: Online platform, Zoom

SIG Residency will continue to promote and create awareness of mental wellness among our residents

GS MEDICAL STUDENT OUTREACH PROGRAMME - MEDICAL STUDENT EXAM PREP SERIES



DR JOEL SOON

Project SEPFYR (Surgical Exam Prep for Final Year Exam Readiness) was birthed out of a tight-knit peer-level partnership between the SingHealth GS Residents, final year students and student-interest group (SIG) representatives from our local medical schools. The idea was conceived via various encounters during clinical training and focused group discussions. The first event was a two-day long case discussion and dissection via a hybrid (live + Zoom) format to maximise participation and outreach. This was followed by a half-day short-case mock circuit put together by a group of GS residents for 100 students. The events were well-received and would not have been made possible without the support of SACP, our programme director and all the residents and students who participated. We are excited to continue this project in 2023.

SINGHEALTH ENT RESIDENTS CADAVER DISSECTION WORKSHOP - HEAD & NECK

The ENT residents had the pleasure of attending a cadaveric workshop on 10 December 2022 at the Academia dissection laboratory. As a first-year resident, this was my first experience at such a workshop. It was a fruitful and eye-opening experience learning from experienced surgeons Dr Siti Radzhiah, Dr Chan Ching Yee and Dr Shane Sim Wen Hui. In the morning, we went through airway procedures including tracheostomy, laryngeal split and rib cartilage interpositional grafting. After a brief lunch break, we were back to the lab going through head and neck procedures such as parotidectomy, submandibular gland excision and neck dissection. It was a great opportunity to hone our surgical skills and deepen our knowledge on anatomical and surgical considerations. Thank you to the organising committee, teachers, Academia staff and our mentors for making this possible. Looking forward to the next one.

Dr Joel Goh
Junior Resident, SingHealth Otolaryngology Residency Programme

SINGHEALTH UROLOGY ADVANCED LAPAROSCOPIC NEPHRECTOMY WORKSHOP 2022

The SingHealth Urology Residency Programme, together with our industry partners (One Ethicon, Karl Storz and Diagnostic Green), conducted an Advanced Laparoscopic Nephrectomy Workshop for our Residents at Academia, SIMS Lab on 29 October 2022. Course Director, Dr Valerie Gan, together with the Urology Faculty from SGH, guided our Residents during the hands-on workshop where they had the opportunity to perform the surgery on pigs. The Urology Residents enjoyed the workshop and are looking forward to more hands-on workshops in the near future.



SingHealth ENT Residents Cadaver Dissection Workshop - Head & Neck



SingHealth Urology Advanced Laparoscopic Nephrectomy Workshop 2022



GLOBAL SURGERY PROGRAMME:

OVERSEAS PAEDIATRIC UROLOGY EXAM TRAINING PROGRAMME

Globally, paediatric urological conditions are up to ten times more common than cleft lip and palate. However, these often remain untreated due to the lack of surgeons trained in paediatric urology subspecialty. To address the unmet needs in developing paediatric urology care in Myanmar, the Department of Paediatric Surgery in KK Women's and Children's Hospital (KKH) has designed a comprehensive online training programme for the multi-disciplinary surgical team to gain knowledge, hands-on experience and research skills. This programme was a useful modality to ensure continuity of global health work despite the pandemic travel restrictions.

About 30 medical residents from Myanmar, Papua New Guinea and the Solomon Islands attended the programme on 1 and 2 April 2022. Through nine pre-recorded lectures and two half-day online teaching courses, most of the attendees found that the programme had exceeded their expectations and were satisfied with the information covered. Given the opportunity, the attendees would like to participate in more of such courses and would definitely recommend the programme to others in their profession.

We would like to thank the following colleagues for their efforts in curating this wonderful programme and contributing to the advancement of care and treatment of paediatric urological conditions in Singapore and beyond.



Prof Anette Sundfor Jacobsen A/Prof Caroline Ong Choo Phaik Dr Amos Loh Hong Pheng



Dr Rambha Rai Dr Yap Te-Lu Dr Chiang Li-Wei



Dr Sim Siam Wee Dr Lee York Tien Dr Li Xiangzhen, Fay Ms Ranjit Kaur

Congratulations to our winners!

National Awards (COVID-19)

The Public Administration Medal (Gold)(COVID-19)



Prof Christopher Cheng Wai Sam
Senior Advisor, SingHealth
Senior Consultant, Department of Urology, SGH & NCCS

The Public Administration Medal (Silver)(COVID-19)



Assoc Prof Tan Hiang Khoo
Group Director, International Collaboration Office Deputy Chief Executive Office, Future Health System, Singapore General Hospital
Director, Duke-NUS Global Health Institute

The Public Administration Medal (Bronze)(COVID-19)



Assoc Prof Chia Shulyn Claramae
Head & Senior of SPRinT
SGH & NCCS



Assoc Prof Toh Song Tar
Head & Senior Consultant
Otorhinolaryngology-Head and Surgery
SGH & NCCS



Dr Loh Chi Yuan Ian
Chief & Senior Consultant
Otorhinolaryngology-Head & Neck Surgery
CGH

Commendation Medal (COVID-19)



Assoc Prof Henry Ho Sun Sien
Chairman, Division of Surgery & Surgical Oncology
Senior Consultant, Department of Urology
SGH & NCCS

Commendation Medal (COVID-19)



Ms Cheah Le Le
Assistant Director, Nursing (Education)
Nursing Education and Development
SGH & NCCS

NMRC Award Winners

NMRC Clinician Scientist Award-Investigator(CSA-INV)



Assoc Prof Lim Chwee Ming
Senior Consultant,
Department of Otorhinolaryngology
-H&N Surgery, SGH & NCCS



Asst Prof Ong Chin-Ann Johnny
Senior Consultant, Department of
Otorhinolaryngology-H&N Surgery,
SGH & NCCS

NMRC Clinician Innovator Award(CIA)



Dr Yong Jin
Associate Consultant, Department of
Urology, SGH & NCCS

NMRC Research Training Fellowship(RTF)



Dr Lionel Chen
Associate Consultant,
Department of Colorectal Surgery,
SGH & NCCS

Conferment of Goh Hak Su Professorship in Colorectal Surgery



Associate Professor Tan Bee Huat Iain
A distinguished professorship is the highest honour that Duke-NUS can bestow upon a faculty member.
The Goh Hak Su Professor in Colorectal Surgery with effect from 1 April 2023

SingHealth Duke-NUS (AM) Research Grant Awardees FY2023

Special Category (Regenerative Medicine and Cell Therapy - RMCIT)



Dr Chue Koy Min
Department of Surgery, SKH
Understanding the role of the human metagenome in obesity, sarcopenia and sarcopenic obesity - A Pilot study

Special Category (HSR-HEARTS)



Dr Kimberley Kiong
Otorhinolaryngology-H&N Surgery,
SGH & NCCS
Assessing stakeholder needs in the implementation of a head & neck cancer survivorship clinic



Dr Thean Lai Fun
Colorectal Surgery, SGH & NCCS
Spatial Transcriptomics to unravel associations of intratumor microbiome with tumor immune microenvironment and metastasis risk in the early-stage colorectal cancer patients