

MSKSG

NEWSLETTER

06

WORLD-CLASS
MICROSURGERY COURSE
THE SINGHEALTH
EXPERIENCE

DR CHEW KHONG YIK &
DR SAVITHA RAMACHANDRAN

JAN - JUN 2023

12

MY SWISS
EXPERIENCE

DR BENJAMIN ANG

ISSUE NO.2





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Innovation Study Trip

A group of 12 staff from MSKSC ACP had embarked on an innovation study trip to the United States from 01 February 2023 to 10 February 2023 to learn about innovation models and best practices from renowned academic medical centres and key industry partners. This was a good opportunity for the ACP in striving to establish a culture of innovation and drive key innovation efforts within the ACP.

The group consisted of key leadership figures within the ACP as well as clinicians with either an existing footprint in the ACP's innovation landscape or an expanding interest in areas of innovation that include robotics, wearables, device development, artificial intelligence and digital innovation.

The group started off the trip in Los Angeles with visits to the Cedars-Sinai Departments of Orthopaedics and Plastic Surgery as well as Kaiser Permanente Health Innovation. They then made their way up to San Francisco with visits to Fogarty Innovation, PrinterPrezz, Stanford Biodesign and the University of California, San Francisco (UCSF).

Cedars-Sinai Accelerator



Kaiser Permanente



Cedars-Sinai Orthopaedics & Plastic Surgery



Fogarty Innovation

Trip Objectives

Innovation has been identified as one of the key strategic thrusts for our SingHealth cluster to improve accessibility and quality of care, increase productivity and lower cost for a more efficient and sustainable healthcare.

The trip focused on several learning objectives:

- System models for healthcare innovation
- Innovation resources, facilities and funding sources
- Innovation best practices and culture
- Integration of innovation with service delivery
- Innovation collaborations and matching with suitable partners

Stanford Biodesign



PrinterPrezz



University of California, San Francisco (UCSF)



BUILDING A WORLD-CLASS MICROSURGERY TRAINING COURSE THE SINGHEALTH EXPERIENCE

Dr Chew Khong Yik & Dr Savitha Ramachandran
SGH & KKH Plastic, Reconstructive & Aesthetic Surgery

This year saw SingHealth's first microsurgery course after a three-year hiatus due to the pandemic. Inheriting the reins from **Professor Tan Bien Keem** who ran this course successfully for the last decade, this year's course was jointly organised by **Dr Chew Khong Yik** and **Dr Savitha Ramachandran** from the Department of Plastic, Reconstructive & Aesthetic Surgery. The course programme was developed with help from **Dr Darryl Chew** of the Department of Hand & Reconstructive Microsurgery and **Dr Vigneswaran** from Ng Teng Fong Department of Plastic Surgery.

"We hoped to build upon the solid foundation of the course and bring microsurgery training to the next era by updating the course programme with newer training models, faculty from all musculoskeletal specialties and international world-renowned microsurgery training experts. This vision was made a reality with the guidance and support of team lead **Dr Chew Khong Yik**."



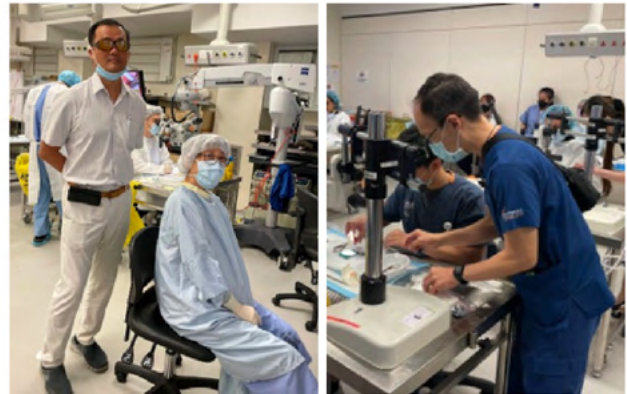
International faculty **Dr Yelena Akelina** and Professor **Kuo Yur Ren** pictured with **Dr Savitha** & **Dr Chew KY**

New Training Models

Traditional low fidelity microsurgery training models featured in past courses used to be latex glove cards and chicken aortas.

In recent years, there has been sufficient evidence in literature demonstrating the benefits of mastering microsurgical skills on low fidelity models before moving on to high fidelity models such as the live rat animal model and eventually translating those skills to clinical practice.

On Day 1, students enjoyed the experience of honing basic microsurgical skills on grapes, chicken feet and chicken thigh vessels, suturing small simulation silicone vessels 1mm in diameter. Day 2 saw students progressing to the next phase of training using live rats.

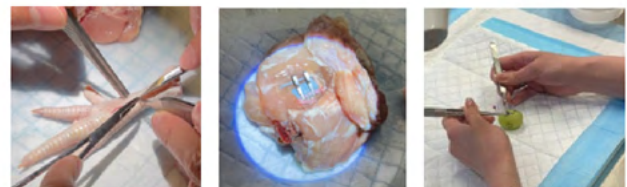


Prof Tan BK and **Dr Darryl Chew** overseeing the demo

One-on-One Teaching

International faculty **Dr Yelena Akelina** from Columbia University, New York, brought with her 26 years of microsurgery training expertise and introduced a one-on-one training model adopted from her course in New York.

The new and updated course was a resounding success. Students were satisfied with the training experience and expressed interest in future courses, a successful example of an MSK collaborative effort.



Newer low fidelity models: chicken feet, chicken thigh and a grape

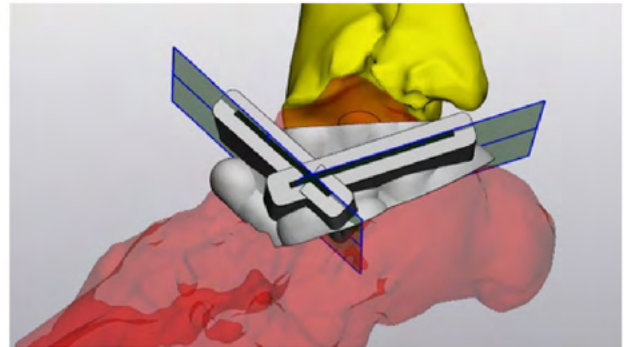
3D-Printed Patient-Specific Osteotomy Guides

Dr Henry Soeharno, Dr Benjamin Ang, Dr Tay Kae Sian
SGH Orthopaedic Surgery

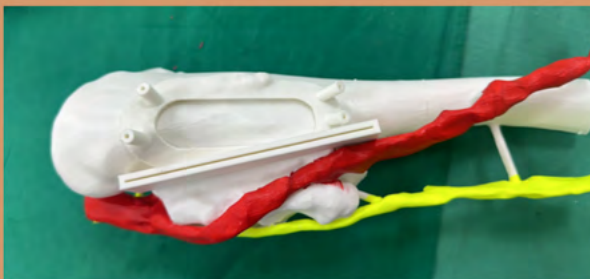
Osteotomies (bone cuts) are generally performed either free-hand or using guided methods (Computer Assisted Navigation or osteotomy guides). Free-hand osteotomy requires significant surgeon experience and is associated with a higher degree of inaccuracy. With the advent of 3D printing technology and biocompatible 3D printing materials, 3D-printed patient-specific osteotomy guides have become more mainstream in recent years. Advantages of using 3D-printed custom osteotomy guides include increased intra-operative accuracy, reduced surgical time, reduced intra-operative x-ray exposure and abolishing the need for bulky computer-assisted navigation systems.

In collaboration with our in-house 3D Printing Centre, many Orthopaedic sub-specialties have utilised this evolving technology.

"The guide allows for a highly accurate pre-planned osteotomy which ensures patient's safety and a good clinical outcome."

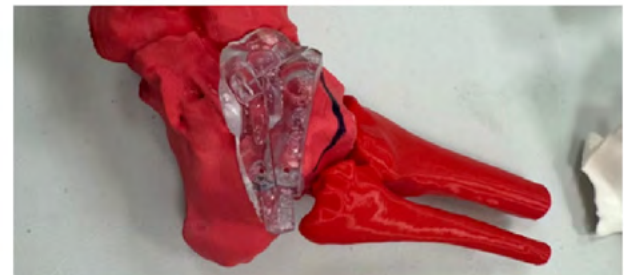


Pre-operative surgical simulation with the cutting jig



"My patient is a 21-year old male with hereditary multiple exostoses. He has a large osteochondroma at the posterior aspect of the right distal femur which is closely related to the sciatic nerve and femoral vessels. The custom osteotomy guide allows for a highly accurate pre-planned osteotomy which ensures patient's safety and a good clinical outcome." - **Dr Henry Soeharno.**

"My patient is a 60-year old lady with a history of childhood poliomyelitis with a complex equinovarus foot deformity. She had undergone previous foot surgery for this but the deformity worsened over the years. The 3D jig enabled me to plan the osteotomy cuts precisely for her, to preserve the tibiotalar joint and avoid damage to critical structures on the medial aspect of the ankle. Combined with the use of a circular frame for gradual correction, it allowed me to perform a complex deformity correction accurately while minimising surgical risk." - **Dr Tay Kae Sian.**



"Periacetabular Osteotomy (PAO) is a complex series of several osteotomies performed for patients with hip dysplasia to improve the coverage of the hip joint and delay the progression of osteoarthritis. 3D-printed cutting jigs allow for more accurate planning and execution of the planned osteotomies. It also allows for more accurate correction of the deformity. These jigs have enabled such complex surgeries to be performed faster, more accurately and safely for the patient." - **Dr Benjamin Ang.**

Education Events

NUS Yong Loo Lin (YLL) Phase 5 SIP Workshop

The Student Internship Programme (SIP) Foundation Course was conducted at SGH for the Year 5 NUS YLL Orthopaedic Surgery medical students on 3rd Oct 2022. Students went through a series of lectures and hands-on practical lessons conducted by the SGH Orthopaedic tutors before the start of their Orthopaedics posting.



NUS Yong Loo Lin (YLL) Phase 3 EOPT OSCE Exam

A total of 15 Orthopaedic Surgery clinicians from various hospitals volunteered and came down to SGH as examiners for the NUS YLL Phase 3 End-Of-Posting OSCE Test which was successfully held on 11th March 2023 for the Year 3 Orthopaedic Surgery students.



Duke-NUS Year 4: Plastercast Workshop

For every Duke-NUS MSK Year 4 posting rotation, nurses from SGH Specialist Outpatient Clinic H, **Sister Ng Yuen Fun, Mr Sozhavalavan S/O Govindasamy P** and **Sister Yeap Mee Lee** will conduct the application of back slab and cast for the students. In this session, students have hands-on experience in performing back slab and plaster cast on their peers.



Plastercast workshop conducted by SOC Clinic H Nurses

Duke-NUS Year 4: MSK Injection and Aspiration Practical Class

Led by **A/Prof Denny Lie** from SGH Orthopaedic Surgery, this unique hour-long practical module equips participants with foundational knowledge on the causes of joint swellings as well as indications of knee aspirations and shoulder injections. Participants will be shown how to palpate and surface mark the joints before injections. Injection and aspiration procedures will then be demonstrated on models.

This course has been organised for about 5 years now and is offered to all Duke-NUS students doing their compulsory core rotation in MSK. Videos showing the procedures have been recorded and are made available.

In the first half of the module, participants are required to complete a successful knee aspiration on the model. In the subsequent half, participants will be required to practise injection on the shoulder model. A light indicator will signal correct placement of the needle in the appropriate joint space.



A/Prof Denny Lie conducting an injection and aspiration practical class



Wearables!

Brief introduction to wearables:

Wearables have the potential to help doctors deliver better care to our patients. The advent of wearable technology can help surgeons and patients in three main areas: **1)** monitoring of post-operative physiological state and level of activity, **2)** patient education/reminders and **3)** provision of feedback after surgery (including clinical parameters and outcomes).

There are two main groups of wearables: **1)** general wellness devices such as smart watches and **2)** the application of data-recording transducers onto the patient's specific joint (usually the joint that is undergoing treatment).

What are some general applications of wearables already being used in the department?

The SGH Department of Orthopaedic Surgery has been working with Singapore-based MedTech start-ups who have developed their own wearables. We have started offering our wearable service to patients undergoing knee surgery.

How did your interest in wearables come about?

I was fortunate to meet with founders of MedTech start-ups who generously shared with me their vision for the use of wearable technology in healthcare. Wearable technology allows the doctor to capture a broader array of parameters currently not feasible in a single outpatient setting.

What do you think are some value-adds that wearable technology offers to both patients and healthcare providers?

Wearable devices are usually simple to operate and capture data from. Parameters captured include sleep quality, stride length, and ambulatory distance. With these additional data, doctors are now able to identify patients who are recovering slower after their hip and knee surgeries at an earlier stage. Additional resources can then be diverted to these patients which include arranging for additional physiotherapy sessions and optimising analgesia. From the patients' perspective, they will be empowered to take charge of their own post-operative recovery with these data made accessible to them.

What is the future you envision for wearables in the department, institution or even healthcare in general?

The deployment of wearable technology peri-operatively for patients who are keen to be actively involved in their post-operative recovery is likely to see an increased uptake among our patients over the next decade. Wearables will be especially appealing for the younger and more tech-savvy population. It has the potential to improve patients' compliance to their treatment and enhance satisfaction in the medical care given to them.

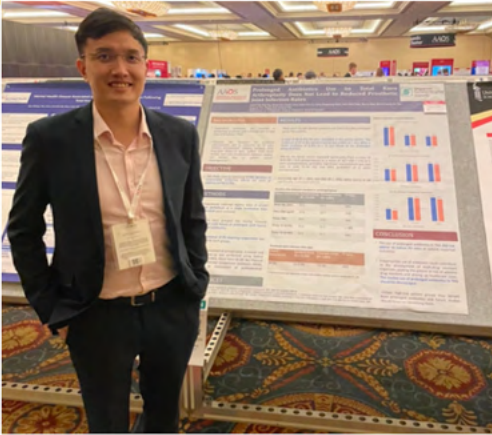


A/Prof Jerry Chen
SGH Orthopaedic Surgery



Best Poster at AAOS

A/Prof Lincoln Liow & Dr Adriel Tay



Dr Adriel Tay with the Poster



A/Prof Lincoln Liow & Dr Adriel Tay at AAOS

"We are grateful for receiving this award from AAOS. Our department has been regularly sharing our research work at the annual AAOS conference for the past 10 years. Our presence at AAOS and internationally has grown over the years. Problem-based research targeted at pertinent clinical issues can help change practice and in this case lead to more responsible use of antibiotics." - **A/Prof Lincoln Liow.**

"Our study was born out of the need for improving antibiotic stewardship in our daily practice. We chose to investigate the appropriateness of prophylactic antibiotics used in total knee arthroplasty, a commonly performed procedure in Orthopaedic Surgery. Our team found that extended prophylactic antibiotic use (beyond 24 hours) did not lead to significant reduction in post-operative infection rates, hence potentially subjecting patients to unnecessary risks and costs.

We are grateful to AAOS for awarding us the Best Poster Award. It is a great honour and also affirms the importance of good antibiotic stewardship. We hope that our study serves as an impetus for more responsible antibiotic usage in all areas of clinical practice. Special mention and thanks to our senior colleagues from the Adult Reconstruction Service, as well as our senior author **Prof Andrew Tan**, for their guidance throughout this project." - **Dr Adriel Tay.**



AAOS
AMERICAN ACADEMY OF
ORTHOPAEDIC SURGEONS

PROLONGED ANTIBIOTICS USE IN TOTAL KNEE ARTHROPLASTY DOES NOT LEAD TO REDUCED PROSTHETIC JOINT INFECTION RATES

Adriel You Wei Tay, Ming Han Lincoln Liow, Kuan Eric Liu, Jerry Yongping Chen, Mei-Nee Pang, Shi-Li Chia, Darren King Jin Tay, Seng Ah Yee, Pooey Olay Andrew Tan
Department of Orthopaedic Surgery, Singapore General Hospital



Singapore General Hospital
SingHealth

BACKGROUND

- Prophylactic antibiotics are essential in preventing prosthetic joint infection (PJI) in total knee arthroplasty (TKA).
- However, the duration of antibiotic administration and its influence on PJI rates remains controversial. Existing literature lacks long-term follow-up data, suffers from small sample sizes and comparisons between studies are limited due to patient cohort heterogeneity^{1,2}.

OBJECTIVE

- This study aims to determine if the duration of prophylactic antibiotics affects the rates of subsequent PJI in TKA.

METHODS

- Prospectively collected registry data of 87223 TKAs performed at a single institution from 2000-2018 were reviewed.
- Patients were grouped into having received standard (24 hours) or prolonged (528 hours) course of antibiotics.
- The prevalence of PJI requiring reoperation was recorded for both groups.
- Clinical assessment at preoperative, 6-month and 2-year follow-up was performed using Oxford Knee Score (OKS), Short Form-36 (SF-36) Physical Component Summary (MCS) and Mental Component Summary (MCS), as well as assessment of postoperative satisfaction.

RESULTS

There were 15,160 (88.0%) standard and 2,063 (12.0%) prolonged group TKA patients.

A total of 48 (0.4%) PJI were identified in the entire cohort. The incidence of PJI in the standard group was 0.40% (n = 41), while a lower incidence of 0.34% (n = 7) was found in the prolonged group (p=0.67).

OKS for the whole cohort improved significantly from a mean of 36.0 (SD = 8.3) preoperatively to a mean of 58.7 (SD = 5.4) at 2 years postoperatively, (p<0.001). Significant improvement was also seen in both SF-36 PCS and MCS (p<0.001) at 2 years postoperatively.

Increasing age (p < .001) and BMI (p < .001) were found to be significantly associated with PJI.

Baseline data between standard vs. prolonged group	Standard Group (N = 15,160)	Prolonged Group (N = 2,063)	P value
Mean age, years	67.1	67.5	.011
Mean BMI, kg/m ²	27.6	27.2	.718
Preop. OKS	35.9	37.0	.754
Preop. SF-36 PCS	32.3	31.3	<.001
Preop. SF-36 MCS	51.6	51.1	.005

Prosthetic joint infection (PJI) rates	Standard Group (N = 15,160)	Prolonged Group (N = 2,063)	P value
PJI (%)	0.40 (41)	0.34 (7)	.656

RESULTS

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Increasing age (p < .001) and BMI (p < .001) were found to be significantly associated with PJI.

CONCLUSION

- The use of prolonged antibiotics in TKA did not appear to reduce PJI rates or patient reported outcomes.
- Inappropriate use of antibiotics could contribute to the development of multi-drug resistant organisms, putting the patient at risk of adverse drug reactions and driving up healthcare costs. The routine use of prolonged antibiotics in TKA should be discouraged.
- Certain high-risk patient groups may benefit from prolonged antibiotics and future studies should focus on identifying them.

Award Winning Poster

"As we aim to be a world-class academic medical department, it is important we practise based on science and take the lead in establishing guidelines and protocols that help achieve best patient outcomes. Doing impactful and meaningful research can help us achieve this goal and this paper on antibiotic stewardship is a good example. We are honoured that AAOS has recognised our effort." - **Prof Andrew Tan.**

Hip Joint Preservation Surgery - My Swiss Experience

"The entire fellowship was memorable!"



Dr Benjamin Ang
SGH Orthopaedic Surgery



Where did you go for your HMDP and why did you choose that location?

I went to Inselspital (Bern, Switzerland) for my HMDP Fellowship on "Hip Joint Preservation Surgery". I chose this centre because it is the "birthplace" of hip joint preservation surgery. **Prof Reinhold Ganz** of Inselspital developed the Ganz (or Bernese) Peri-Acetabular Osteotomy (PAO) to treat hip dysplasia and was among the early "founders" of Femoro-Acetabular Impingement (FAI). He also developed surgical dislocation of the hip to address FAI and other hip deformities/conditions. Inselspital is the largest hospital in Bern, the capital of Switzerland. It is a public hospital and it receives a large number of referrals from the region and internationally as it is renowned for hip preservation surgery.

Tell us more about your HMDP experience and were there any memorable moments during your fellowship?

I was in the Hip and Pelvis team under Prof Klaus Siebenroc who took over as head of department from Prof Ganz in 2005. A typical week consists of 2 days in clinic and 3 days in the operating theatre. I was involved in several hip preservation surgeries, including Peri-Acetabular Osteotomies (PAO), hip arthroscopies, surgical dislocation of the hip, and proximal femur osteotomies. As the team is region-based, I also participated in total hip replacements (including direct anterior approach), revision total hip replacements as well as pelvic and hip fracture fixations.

Switzerland has an efficient train network, which allowed my family and I to explore other parts of Switzerland during the weekends and holidays. Switzerland is also an extremely beautiful country and we were blessed to be able to experience both the winter and summer seasons, enjoying hikes through mountains and valleys, glaciers and lakes.

WRAP IT UP!

Hello! We're the plaster cast team from SGH. Our team consists of nurses and plaster cast technicians.



What is the daily scope of work at the clinic?

The daily scope of work at the plaster room includes applying casts and splints to patients of all ages and conditions following their surgeries, particularly orthopaedic conditions. Nurses and plaster cast technicians work hand-in-hand. The nursing team takes charge of the dressing while the technician team works on the casts for patients. The team works closely with Orthopaedic surgeons in planning and deciding on the best cast application for patients. We also advise and educate patients after casts / splints have been fitted as well as on appropriate care of casts at home. Last but not least, the removal of casts and splints are part and parcel of our work.



Plaster cast team applying a cast on a patient

Any interesting encounters in your area of work at the clinic?

We do come across unique experiences through handling different cases and conditions on a daily basis. We are able to be part of the patient recovery journey from start to end. Patients who have recovered still recognise us after many years and it gives us a sense of gratitude and appreciation.

What are the challenges that you come across in your daily work?

Some challenges faced by the plaster cast team include managing and dealing with the competing demands of patients, relatives and colleagues. As plaster cast technicians, we also have to manage challenging expectations of clinical staff to achieve high standards of patient care in line with best practices. In addition, we have to work autonomously in an environment where some staff are not trained in plaster cast application. There are emotional and physical demands of the job such as space limitations in the wards for cast application and inadequate material supplies.



Mr Suzairi & Mr Yeap removing casts

How is the experience of working with the MSK clinicians?

It is indeed our pleasure to work with the MSK clinicians who are always receptive to suggestions and opinions. They are more than willing to teach and share knowledge on updates of Orthopaedic practices.



ANC Ng Yuen Fun performing wound care

MSKSC Webinars

Led by **Dr Dinesh Kumar**, MSKSC ACP had embarked on the first two of a planned series of webinars under the Faculty Affairs & Academic Development (FAAD) arm. Featuring an exciting line-up of speakers as well as a selected group of eminent panelists, the webinars aim to glean insights from our valued members of the ACP on a diverse range of discussion topics including women in musculoskeletal surgery, work-life balance, building resilience and joy at work. Future topics being explored include burnout and transition post-FRCS.

Each webinar saw over 200 attendees from various professions such as administrators, allied health professionals, nurses, doctors and even medical students.



Zoom immersive view for panel discussion - Women in MSK Surgery

The first webinar was titled 'Women In Musculoskeletal Surgery', aimed at engaging and inspiring female healthcare professionals in the surgical disciplines and providing tips on navigating various challenges spanning professional development, work-life balance, leadership aspirations and gender dynamics in the workplace.

The second webinar was a nursing webinar titled 'Caring Hearts, Healing Hands' and revolved around the journey of our nursing colleagues who work closely with MSKSC ACP.

WEBINAR

Women in Musculoskeletal Surgery

Friday, September 16, 2022
1:00 p.m. - 2:00 p.m. SGT
Webinar will be broadcast LIVE

REGISTER NOW

This webinar aims to engage, connect and inspire female healthcare professionals in the surgical disciplines and provide tips on navigating various challenges spanning professional development, work-life balance, leadership aspirations and gender dynamics in the workplace. All healthcare professionals are welcome to join the webinar to gain insights into challenges faced by women in the Musculoskeletal Sciences disciplines.

Registration link: <https://bit.ly/MSKWebinar1>

Speakers

- Dr Fong Poh Ling**
Orthopaedic Surgery
Singapore General Hospital
- Dr Suraya Zainul Abidin**
Orthopaedic Surgery
Singapore General Hospital
- Dr Savitha Ramachandra**
Plastic Surgery
KKH Women & Children Hospital
- Dr Sili Mastura Binte Rahim**
Orthopaedic Surgery
MOHJ

Talks

- The Life as a Female Orthopaedic Spine Surgeon: My Journey
- Surgeon Mum: Is it possible to be both?
- Women in Reconstructive Microsurgery - Inspiring Innovation for the Future
- Balancing Residency and Being a National Athlete

Panelists

- A/ Prof Tan Mann Hong**
Division Chair
Division of Musculoskeletal Sciences, SGH
- A/ Prof Joyce Koh**
Senior Consultant
Orthopaedic Surgery, SGH
- Dr Sharon Low**
Head & Consultant
Neurological Services, KKH

Moderator

- A/ Prof Agnes Tan**
Senior Consultant
Head & Reconstructive Microsurgery, SGH
- Dr Dinesh Shree Kumar**
Head & Senior Consultant
SingHealth Duke-NUS Spine Centre
Orthopaedic Surgery, CGH

In partnership with:

- MUSCULOSKELETAL SCIENCES**
- Spine Centre**
- Medtronic**

Webinar

Caring Hearts, Healing Hands

Friday, April 14, 2023
1:00 p.m. - 2:00 p.m.
Webinar will be broadcast LIVE

REGISTER NOW

This webinar aims to share insights among the nursing community on their journey and aspirations, how they maintain work-life balance, build resilience and the things that spark joy in their work.

Registration link: <https://bit.ly/MSKWebinar2>

Speakers

- Weng Yutan**
Nurse Clinician
(Advanced Practice Nurse), CGH
- Wang Yako Hui**
Senior Nurse Clinician
(Advanced Practice Nurse), SGH
- Mohammed Nazri Bin Johri**
Nurse Clinician
(Resident Nurse), SGH
- Joanne Jovina Cheng SH**
Senior Nurse Clinician
(Advanced Practice Nurse), KKH

Talks

- Balancing family, work and study - The highs & lows of my APN Internship journey
- Transitional Journey of Advanced Clinical Nursing
- Building Resilience
- Working with Cleft Children and their Families

Panelists

- A/Prof Inderjeet Singh**
Senior Consultant
Orthopaedic Surgery, SKH & SGH
- Ms Christina Lim**
Chief Nurse
Division of Nursing, SKH
- Ms Png Oak Kreng**
Chief Nurse
Division of Nursing, CGH

Host & Moderator

- Dr Dinesh Shree Kumar**
Head & Senior Consultant
SingHealth Duke-NUS Spine Centre
Orthopaedic Surgery, CGH

MUSCULOSKELETAL SCIENCES

Spine Centre

Invited speakers shared insights with the nursing community on their journey and aspirations, how they maintain work-life balance, build resilience and the things that spark joy in their work. We were honoured to have Chief Nurses from Sengkang General Hospital (SKH) and Changi General Hospital (CGH) join our webinar as panelists.



Zoom immersive view for panel discussion - Caring Hearts, Healing Hands

MSKSC Grand Round

MSKSC Grand Round

3D printing with omniagent: disease engineering for MSK reconstruction - "State of the Art"

3D printing and planning has remained non-routine clinical use. Many aspects of musculoskeletal reconstruction is currently undergoing a quiet revolution in improving outcome and patient satisfaction while helping to save operative time and surgical resources. We present 3 different cases highlighting this frontier in combining these engineering, microsurgical reconstruction and 3D printing with modern patient technology.

The SGH 3D Printing Centre: Current capabilities and future plans

The SGH 3D Printing Centre (3DPC) was established in end 2012 with the primary aim to design and produce, from medical imaging, patient-specific models and devices for complex clinical cases. The 3DPC has performed over 1500 print projects to date from surgical, medical and allied health specialties. This talk presents the value proposition and current capabilities of the 3DPC. It also introduces and proposes planned developments work of the 3DPC to assess generally relative to the MSA, ACP i.e. patient-specific casting guides, thermoplastic implants as well as prosthetics and orthotics.

The Surgeon as Designer: Developing patient-specific models and anatomy cutting guides for orthopedic surgery: Designing surgical planning devices to enhance the surgical skills of new generation of surgeons

Surgical, hardware engineering and training teams work together to skilled interdisciplinary teams to operationalize clinical 3D printing. In this talk, experiences, contributions, methods and reflections on developing patient-specific models and cutting guides for musculoskeletal surgery applications are introduced and discussed by Dr Henry Soeharno, a key system leader in this burgeoning area of care.

Dr Henry Soeharno
Senior Consultant, SGH
Singapore Orthopaedic Society

Dr Chen Khong Yik
Senior Consultant, SGH
Singapore Orthopaedic Society

Dr Tan Bangwei, Mark
Consultant, SGH
Singapore Orthopaedic Society

Date: 30 MARCH 2023, Thursday
Time: 7.30AM - 8.30AM
*Registration & Buffet Breakfast starts from 7am
Venue: SGH Academia, Level 1, L1-S3

Registration Link: <https://forms.gle/ygH5wC6t5748w07002Lx4k6A>

SCAN TO REGISTER



MSKSC GRAND ROUND

Wrist Instability - A lifetime experience from the bench to bedside

Since 1972 after the seminal publication by Linschold et al., the term "wrist instability" has been repeatedly used to describe a big zig-zag pattern of carpal malalignment present in many carpal conditions. Unfortunately, an unorthodox interpretation of the seminal study about the subject dominated the incorrect idea that all carpal malalignments are unstable. Indeed, the term instability is not a synonym for malalignment, and an alteration of carpal alignment may not always be pathologically unstable.

In this lecture, we will:

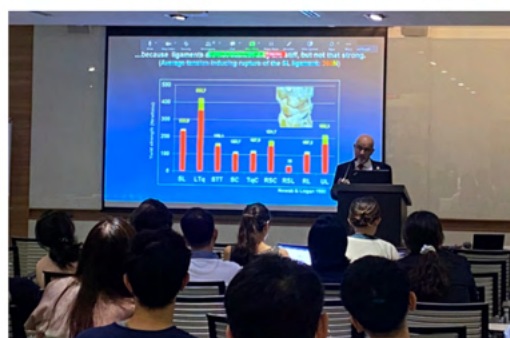
- Review the pertinent normal anatomy. What is a "true" carpal ligament? The proprioceptive mechanisms of carpal stabilization will be also discussed.
- Learn the basic terminology, the most common scenarios presenting in everyday life, how to analyze and how to manage them.
- Discuss whether or not symptoms are fast enough to accept the risks of complex reconstructive surgery or if they are something the patient can live with. Indeed, a distinctive locking radiograph is not necessarily an indication for reconstructive surgery.

Dr Marc Garcia-Elias, MD, PhD
Honorary Post-Professor, International Institute for Research in Surgery of the Hand
Professor, Universidad Carlos III de Madrid
Senior Consultant, Hospital Universitario La Princesa, Madrid & Clinica Universidad de Navarra, Madrid & Clinica Universidad de Navarra, Madrid & Clinica Universidad de Navarra, Madrid

Date: 31 May 2023, Wednesday
Time: 7.30AM - 8.30AM
Registration & Buffet Breakfast starts from 7am
Venue: SGH Academia, Level 1, L1-S3

Registration Link: <https://forms.gle/388250P74108022826U>

SCAN TO REGISTER



Congratulations!

SingHealth Publish! Award

The SingHealth Publish! Award is an annual accolade given to SingHealth researchers who have published quality articles in internationally acclaimed scientific or medical journals. The award aims to encourage junior researchers to continuously strive to raise the quality of SingHealth's research publications, raise the international and national profile of SingHealth's research, and promote translational and clinical research collaborations for the cluster.



Dr Benjamin Ang
SGH Orthopaedic Surgery

"I would like to thank my co-authors (Dr Chandra Mohan, Dr Png Meng Ai, Prof John Allen, Prof Howe Tet Sen, A/Prof Joyce Koh, Dr Brian Lee and Prof Bernard Morrey) for their valuable contributions, without which this award would not have been possible."



AOSSM
American Orthopaedic Society for Sports Medicine

Impact Factor: 7.019
5-Year Impact Factor: 8.076

Restricted access | Research article | First published online May 6, 2021

Ultrasonic Percutaneous Tenotomy for Recalcitrant Lateral Elbow Tendinopathy: Clinical and Sonographic Results at 90 Months

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[Volume 49, Issue 7](#) | <https://doi.org/10.1177/03635465211010158> | [View letter](#)

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Abstract

Background:
In a study from our institution, ultrasonic percutaneous tenotomy of the brevis and the common extensor tendon for recalcitrant lateral elbow tendinopathy showed excellent safety profiles, high tolerability, efficiency, sustained pain relief, functional improvement, and sonographic evidence of tissue healing in 20 patients at 3 years' follow-up.

Purpose:
To explore the long-term clinical and sonographic results of ultrasonic percutaneous tenotomy of the brevis and the common extensor tendon.

Study Design:
Case series; Level of evidence, 4.

Methods:
The same cohort of 20 patients was recalled after 7 years, and visual analog scale (VAS) for pain and Disabilities of the Arm, Shoulder and Hand (DASH) scores, need for secondary intervention, and overall satisfaction were assessed. They were also reassessed using ultrasound imaging of the brevis and the common extensor tendon to evaluate tendon hypervascularity, tendon thickness, and the progress or the recurrence of the hypoechoic scar tissue.

Prof Tan Kok Chai - Emeritus Consultant

Congratulations to **Professor Tan Kok Chai** for his well-deserved promotion to Emeritus Consultant!

Prof Tan's numerous contributions throughout his career includes setting up the hospital's Skin Bank which, together with the Burns Unit, has become the region's go-to centre for major burns treatment. Prof Tan was also one of the first surgeons to perform complex head and neck reconstruction including state-of-the-art free flaps at SGH. Throughout the years, Prof Tan has mentored generations of plastic surgeons despite his busy schedule.

He has also been heavily involved in philanthropy throughout his career. To read more about Prof Tan's philanthropy journey, please see Issue 1 of our MSKSC ACP Newsletter!



**Prof Tan Kok Chai & SGH CMB
A/Prof Ruban Poopalalingam**

Congratulations!

Academic Titling from Duke-NUS



A/Prof Hamid Razak
SKH Orthopaedic Surgery



A/Prof Jerry Chen
SGH Orthopaedic Surgery



A/Prof Lincoln Liow
SGH Orthopaedic Surgery

Congratulations to our newly promoted Adjunct Associate Professors, **A/Prof Hamid Razak**, **A/Prof Jerry Chen** and **A/Prof Lincoln Liow**, for their commitment in research to improve clinical outcomes for patient care.

Course Sponsorships

Congratulations to **Dr Chong Chew Wei** & **Dr Kang Yong Chiang** from the SGH Department of Hand & Reconstructive Microsurgery for being awarded an opportunity to embark on the Technology Enhanced Learning (TEL) for Health Professions Education (HPE) Programme.



Dr Chong Chew Wei
SGH Hand & Reconstructive
Microsurgery



Dr Kang Yong Chiang
SGH Hand & Reconstructive
Microsurgery

Collaborations with SGH Patient Liaison Service (PLS)

With the aim of increasing public awareness of our services and enhancing delivery of care, the SGH Division of Musculoskeletal Sciences has been working closely with counterparts from the Patient Liaison Service (PLS) Department, which represents SGH's point-of-contact in the management of referrals from GPs, insurance companies and overseas patients.

PLS aims to provide holistic support to the departments, care partners, patients and external organisations for timely access to medical appointments and to ensure a seamless patient journey. This includes establishing the pre-authorization process for AIA policy holders in 2022, thereby removing an access barrier for foreign residents seeking treatment and surgeries at SGH.

The SGH Division of Musculoskeletal Sciences collaborates with PLS on regular outreach activities to various market segments such as GPs, insurance partners and general members of the public so as to strengthen public mindshare on the SGH MSK brand. Since 2020, there have been 18 GPCME forums / lunchtime talks, 12 networking sessions with insurance partners and 12 public health education webinars organised.

On the international front, the Division also works with the SingHealth International Collaborations Office (ICO) for overseas engagement programmes, building of partnerships with overseas medical providers in Bangladesh and Vietnam as well as sharing of SingHealth and the Division's expertise and value-driven care services with overseas insurance companies such as Prudential Indonesia and AIA Vietnam.

Public Health Education Webinar Posters



Engagement Sessions by MSK Clinicians & PLS



MSKSC ACP International Collaboration Opportunities

Countries identified for collaboration with SGH includes Indonesia, Vietnam, Bangladesh and Sri Lanka. International outreach plans for these trips include the following:

- Medical events for public
- Medical events for doctors
- Media articles
- Patient consultations & surgeries
- Regional doctors network
- Projects, training and fellowships
- Insurance/Private referral organisation

Bangladesh Trip – 1st to 4th March 2023

Dr Marcus Ling and **Ms Tiffany Thng** represented SGH Division of MSKSC to Bangladesh during the recent ICO trip. They met up with various healthcare institutions such as Evercare, Dhaka Medical College & Hospital and Sheikh Hasina National Institute of Burns & Plastic Surgery (SHNIBPS) to discuss the possibility of clinical and research collaborations.



Vietnam Trip – 20th to 23rd April 2023

Prof Andrew Tan and **Dr Bryon Teo** represented SGH Department of Orthopaedic Surgery in a trip to Vietnam. They met up with Vietnam Sport Administration and Vietnam Association Medical Biological Research Application (VAMBRA) to discuss potential clinical and research collaborations. They also participated in various health talks and seminars during the trip.



Philanthropic Initiatives

SingHealth Duke-NUS Gala Dinner (MSK)

MSKSC ACP participated in the 2023 SingHealth Duke-NUS Gala Dinner themed, A New Dawn, to mark a new year and new beginnings after the 3-year long pandemic. The Guest-of-Honour was Deputy Prime Minister and Minister for Finance, **Mr Lawrence Wong**. MSKSC ACP had 3 auction items: 2 bottles of wine and a painting.



Spine & Burns Initiative

In 2021, the SGH Department of Orthopaedic Surgery raised funds to provide financial assistance to elderly Singaporeans undergoing total knee replacements to mark SGH's 200th anniversary. As an extension of the 200 Knee Initiative, the SGH Division of MSKSC will embark on a new initiative to help needy patients with other conditions under the SGH musculoskeletal sciences disciplines.

This initiative aims to defray a fraction of the out-of-pocket costs for spine and burns patients. Eligible patients who meet the socio-economic and clinical criteria will be considered. These cases will also be assessed by Medical Social Services.

FUTURE PHILANTHROPY EVENTS

**Donor Engagement
Session: PRAS**

MSK Public Run

**Donor Engagement
Session: OTO**

**Donor Engagement
Session: HRM**



KWONG WAI SHIU HOSPITAL COMMUNITY DAY

March 2023

SGH Department of Orthopaedic Surgery had organised an annual community outreach event targeting the elderly at the Kwong Wai Shiu Hospital. The objective was to reach out and give back to the elderly community as well as to raise the level of health literacy particularly in understanding osteoporosis, its diagnosis, risk factors, treatment and prevention. Free health screening and consultations were provided by the doctors and other healthcare volunteers during the visit. The event was also graced by President Mdm Halimah Yacob.



Divison of MSKSC

Christmas & Chinese New Year Lunch



Christmas Lunch @ Peppermint

In festive spirits, SGH Division of Musculoskeletal Sciences organised Christmas 2022 lunch and Chinese New Year 2023 lunch for the administrators, to show appreciation for their contributions throughout the years. Christmas lunch was also the first division gathering since the start of the pandemic.



Chinese New year Lunch @ Tasty Loong Restaurant

DSSO x MSKSC

Resus Round



12 JAN 2023



Do it your way

DIY COLLATERAL DESIGN TIPS

HI EVERYONE!

I'm **Yean Fang**, an administrator from the Division of Musculoskeletal Sciences. You have probably seen my name in the emails. In this edition, I will show you one of the roles of a healthcare admin.



It is true that the life of an admin primarily revolves around MS Word, MS Excel, MS PowerPoint, People Connexion, ARIBA and APIMS. However, there is a colourful and creative side to it which I enjoy.

Have you noticed the event posters, invitations or greetings you received? They are created by the admin team. We usually work with the clinician lead to set up the logistics and publicity for events which includes designing of event collaterals. Some people might not notice, but for those artistically inclined, a visual image is an effective way to give the audience a 10-second preview. It conveys the event name, date, time and venue. More importantly, it embodies the vibe that the organiser wants to create, making each event unique.

Over the years, I have created collaterals for MSKSC and I would like to share with you how a design amateur like myself can create our own customised collaterals.

1. DETERMINE THE GENERAL DIRECTION

- What is the occasion?
- What theme or vibe to portray?
- What colour scheme to use?
- Who is the intended audience?
- Research on the theme, the associated images/shapes and colour
- Research on the event. Are there any past themes to follow or avoid?
- Any other specific requirements from the 'client'?

2. SELECT A DESIGN PLATFORM

You can create and develop posters anywhere. In the past, I used PowerPoint but there are many online tools and platforms available in recent years to help amateur designers. Some examples include Canva, Visme and Adobe. I have used Canva (free edition) to create posters and invitations. It's easy and intuitive to use and there are many functions to assist you with the process.

3. BE RATIONAL AND FOLLOW YOUR AESTHETIC INSTINCT

Art is subjective, there is no right or wrong in artistic expression. You have the freedom to create. With the theme in mind, browse through the templates and see which one resonates with you. Visualise how you can fit in your content and try it out to see if it pleases your eyes.

Always remember that you can manipulate everything in the design, flip it, crop it, filter it, resize it, and colour it! However, there are certain rules that we have to be mindful of to achieve a neat look.

- Make sure everything is visible!
 - Pick a legible font type and font colour
 - The more prominent the font size, the more important the information
 - Strategic placement of different content, e.g. event title vs rsvp contact
 - Always use PNG images with transparent backgrounds for a clean look
- Align, Align and Align!
 - Align the text and objects, it is critical for a neat look
 - Keep the important stuff inside, do not place important information or object in the border margin or risk it being cut off during printing
- Leave some breathing space
 - White space is necessary to reduce visual clutter and focuses your audience's attention on important information
 - Sometimes less is more



The brief:

- To create a poster for Resus Round on 9 Nov
- A festive get-together, wine and dine event

Theme:

- No unique theme
- Welcoming, happy and eye-catching
- Year-end celebration

Colour scheme:

- No specific theme

Intended audience:

- MSKSC staff

Design platform:

- Canva

1. Although there was no unique theme set for the event, we know that it is a celebratory occasion which brings people together at the end of the year, therefore I selected a party look.

2. Browsed through the templates on Canva, and selected one that looks appealing and fits the celebratory theme.

3. The core essence of the original design remained. However, some modifications were required to reduce the feminine feel as this poster should appeal to both genders. The background was changed to a neutral grey emphasising the drawing and giving it a night look.

4. Colourful confetti was added to enhance the party look and give vibrancy to the grey background.

5. Fonts were changed to white to increase legibility and glowing pink colour was selected to enhance the party vibe.

6. Amped up the dazz factor. Canva has a function to add animated stickers and users can download the gif file to attach it to their email or presentation. I incorporated some animated twinkles and falling confetti into the poster, enhancing the evening party look, and used it in my email invitation. Unfortunately, I am unable to share the final gif file with you in print or PDF, but give it a try in your next design!

GALLERY OF PAST WORKS

CREATED WITH CANVA



CREATED WITH POWERPOINT



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MSK MINIONS

Budgeting Priorities

Expectation



Reality



January - June Edition | 2023

A special thanks to Dr Ou Yang Youheng, SGH Orthopaedic Surgery for the cover photo.

Keeping up with MSKSC ACP



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