

19 BRIDGING BORDERS IN ORTHOPAEDICS DR WOO YEW LOK





NEWSLETTER

DIABETIC LIMB

DR FENG JIA JUN DR DAWN CHIA DR PNG WENXIAN

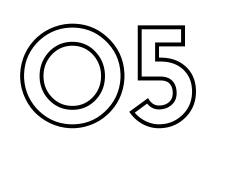
ISSUE NO.5

JUL - DEC 2024

- 4 Innovation Study Trip: Switzerland & Germany
- 6 Research Day 2024
- 7 Value-Based Care (VBC) Symposium
- 8 International Visitors
- 9 Spine SDDC News









- **10** Education Events
- 12 MSK Residency
- 13 SingHealth Duke-NUS Charity Golf 2024
- 14 Awards
- 17 Hanoi Trip

- 18 Beijing Outreach Trip 2024
- **19** Bridging Borders in Orthopaedics
- 20 Global Health
- 22 SKH Diabetic Limb Salvage Team
- 24 MSK Grand Round & Webinars
- 25 SGH PLS Collaborations

TABLE OF CONTENTS



- 26 MSK Media
- 27 Surgical Resus Round

邬耀乐

- 28 SKH Orthopaedics Admin Team
- 30 Team & Contacts
- 31 MSK Minions

Innovation Study Trip to Europe with MSKSC ACP and A.L.I.C.E

Delegates from the Musculoskeletal Sciences (MSKSC) ACP together with colleagues from the SingHealth Alice Lee Innovation Centre of Excellence (A.L.I.C.E) embarked on a collaborative trip to Germany and Switzerland to gain valuable insights into innovation models and best practices from renowned institutions.

The aim of the trip was to identify a few specific areas of healthcare innovation that can be learnt and adapted to the SingHealth musculoskeletal context. Potential areas of innovation relevant to the musculoskeletal disciplines include device development, artificial intelligence, digital health, wearable technology, robotics and so on.

These innovation areas can be further developed and scaled by leveraging on the expertise of colleagues from A.L.I.C.E. These identified areas of innovation will also form the backbone of strong collaborative ties with the European partners.

The trip was also an excellent opportunity for key leadership appointments within the ACP to glean insights from successful examples in Europe on how to better chart our innovation directions, to inculcate innovation best practices, to inspire an innovation culture within the fraternity and to overall be an effective leader for driving innovation within the ACP.

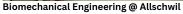
AO Research Institute, Davos



04

University Hospital of Basel







Lunch with University Hospital of Basel Delegates



Heidelberg University Hospital





Dinner with the Heidelberg University Hospital Delegates



Berlin Institute of Health (BIH) @ Charite







Exploring the City!







05

RESEARCH

22 NOVEMBER 2024

Research Day 2024 A/Prof Joyce Koh



SGH Orthopaedic Surgery





MSKSC ACP worked in partnership with the newly formed SingHealth Academy College of Healthcare Engineering (CHE) to co-organise a highly engaging and interactive Research Day on the afternoon of Friday, 22nd November 2024.

The aim was to foster networking among clinicians and engineers, to stimulate collaborative research as well as to explore the future directions of CHE and the Biomechanics pillar of MSKSC ACP.

The Research Day brought together clinicians, engineers and researchers from CHE and across the SingHealth musculoskeletal departments to present relevant clinical cases for which innovative biomechanical and engineering solutions could potentially be were applied. All given the opportunity to engage in the discussions.



WHERE ENGINEERING MEETS THE MUSCULOSKELETAL SCIENCES



An engineering forum was an integral part of the programme where moderator Dr. Siow Wei Ming, Senior Consultant from the SKH Department of Orthopaedic Surgery, engaged the panelists - Dr. Henry Soeharno, Dr. Wong Yoke Rung and Ms. Fiona Loke - in conversation as they delved into topics such as bridging the gap between clinicians and engineers, creating awareness of the challenges faced by both sides and so on.

The SingHealth Academy College of Healthcare Engineering (CHE) aims to develop engineering professionals of the future who competently put engineering at the heart of clinical and hospital decisions with the aim of enhancing patientcentric care.



Dr Rena Dharmawan introducing the newly launched SingHealth Academy College of Healthcare Engineering (CHE).

JUL - DEC 2024



VALUE-BASED CARE Symposium

The SingHealth Duke-NUS **Musculoskeletal Sciences** (MSKSC) and Surgery Academic Clinical Programmes (ACPs) jointly organised a symposium in August this year revolving around the topic of value-based models of care and their impact on hospital productivity, surgical practice and the overall surgical patient journey.

We had the honour of having three highly esteemed speakers from the United Kingdom join us to share their experience, insights and perspectives on value-based healthcare.









Snapshots from the Programme



The event saw a very encouraging of turnout participants across the different segments including senior management figures, surgeons, nurses, allied health professionals and even administrators. It was definitely an engaging and beneficial experience for all in attendance.



To top things off, MSKSC ACP also had the pleasure of interviewing the overseas invited speakers for our MSK Waves Podcast.

JUL - DEC 2024

08

INTERNATIONAL VISITORS

Hanoi Delegates



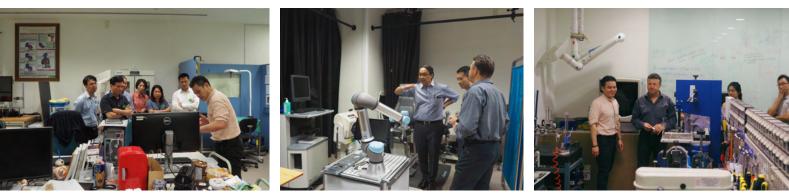


From 4th to 6th September 2024, the Division of MSKSC and ICO welcomed 9 delegates from Hanoi, including members from **Viet Duc University Hospital, Hanoi Medical University Hospital, and 108 Military Hospital** as part of the SingHealth-Hanoi Global Health Programme.

During their visit, the delegates took part in comprehensive tours of SGH's cutting-edge facilities, gaining valuable insights into our practices and innovations. We are thrilled to share that ICO is in the process of establishing a Memorandum of Understanding (MOU) with all three Vietnamese hospitals. These agreements aim to foster collaboration and strengthen our shared commitment to advancing healthcare.



Visit by Prof Boyko Gueorguiev-Ruegg from AO Davos



MSKSC ACP had the delightful opportunity to host **Professor Boyko Gueorguiev-Ruegg**, Vice Director of the AO Research Institute from Davos, Switzerland. **Prof Boyko**'s research interests include biomechanics of bone fracture fixation as well as implant and joint biomechanics. **Prof Boyko** was given a tour of the ACP's research facilities including the robot lab, the biomechanics lab as well as the procedural skills located at Academia. It also provided an opportunity for quick yet meaningful exchanges between Prof Boyko and the lab researchers and engineers.



SPINE CENTRE NEWS

SingHealth and NAMS Sign MOU

The signing of a Memorandum of Understanding (MOU) between **SingHealth** and the **Nepal National Academy of Medical Sciences (NAMS)** on 29th July 2024 was an exciting event, with SingHealth GCEO **Prof Ng Wai Hoe** in attendance alongside spine surgeons from the SingHealth Duke-NUS Spine Centre. This collaboration represents a significant step forward in advancing spinal education, research, and innovation globally.

This MOU embodies the spirit of international partnership, bringing together diverse perspectives and expertise to tackle shared challenges in spinal health. Together, SingHealth and NAMS are committed to developing impactful solutions that will enhance patient care and improve health outcomes.







Spine Centre Annual Scientific Meeting



The SingHealth Duke-NUS Spine Centre Annual Scientific Meeting 2024, held on 27th July, began with an opening address by Guest-of-Honour, SingHealth GCEO **Prof Ng Wai Hoe**. The event focused on the theme "Current Concepts in Spine Care," featuring engaging presentations and discussions on motion preservation surgery, endoscopic spine surgery, robotic spine surgery, and emerging trends in the field.

In addition to these insightful sessions, the meeting included the presentation of fellowship awards, recognising outstanding contributions in the field. This aligns with the core mission of the SingHealth Duke-NUS Spine Centre, which seeks to enhance patient care by leveraging technology, research, and innovation to achieve value-driven outcomes.

A multidisciplinary team approach was emphasised, showcasing the vital contributions of specialty spine nurses and physiotherapists in optimising patient outcomes.



NUS YONG LOO LIN (YLL) PHASE 5 SIP WORKSHOP

On 30th September 2024, the Student Internship Programme (SIP) foundation course was successfully conducted at SGH for Year 5 NUS YLL Orthopaedic Surgery medical students. A total of 72 students participated in this programme, which included a series of informative lectures and hands-on practical lessons led by experienced SGH orthopaedic tutors.

The workshop was led by **A/Prof. Reuben Soh** and was aimed at preparing students for their upcoming orthopaedic posting by providing them with the relevant knowledge and skills. The combination of theoretical insights and practical experience are designed to enhance their learning and readiness for clinical practice.

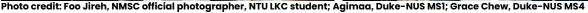




BACKSLAB WORKSHOP AT ANNUAL NATIONAL MEDICAL STUDENTS CONVENTION

The Backslab workshop was organised by TriMedSoc for all three medical schools in Singapore: Duke-NUS, YLLSOM, and LKCSOM. Led by SingHealth residents **Dr. Bryan Loh, Dr. Jessica Thor, Dr. Coeway Thng,** and **Dr. Lee Bing Howe**, the workshop focused on the application of backslabs, which are plaster casts used to immobilise limbs. This hands-on training provided a valuable opportunity for students to develop practical skills and collaborate across institutions in orthopaedic care.





MICROSURGERY & INJECTIONS



A collaborative workshop was held by the Duke-NUS Orthopaedic Surgery, Hand Surgery, and Plastic Surgery Student Interest Groups on 24th August 2024. Led by **A/Prof. Andrew Chin**, **Dr. Dawn Chia**, and **Dr. Darryl Chew**, the session introduced participants to the fundamentals of microsurgery, injection techniques for hand conditions, and offered valuable surgical dexterity training. It was a fantastic opportunity for the students to enhance their skills and knowledge in the field!

Photo credit: Duke-NUS Orthopaedic Surgery, Hand Surgery & Plastic Surgery Student Interest Groups

ANNUAL SPORTS ORTHOPAEDICS & ORTHOPAEDIC RESEARCH

A/Prof. Denny Lie and **Dr. Tay Hui Wen** spearheaded the Annual Sports Orthopaedics, Orthopaedic Research, and SingHealth Orthopaedic Residency talk on 11th October 2024. This informative evening highlighted research opportunities in Orthopaedics and Sports Orthopaedics.

Engaging in research not only enhances clinical practice but also enriches the professional journeys of emerging practitioners, helping them develop critical thinking skills and stay at the forefront of medical advancements. Attendees had a valuable opportunity to expand their knowledge and network in these important areas.





Rachel Hew, Jolene Lee & Grace Chew, Duke-NUS MS4, Orthopaedic Surgery Student Interest Group

SUTURING WORKSHOP BY ORTHOPAEDIC & GENERAL SURGERY SIGS







Duke-NUS Orthopaedic Surgery SIG had a suturing workshop in collaboration with our General Surgery SIG counterpart on 29th November 2024 at Academia. It was an honour to have Senior Consultant, NCCS/SGH, HPB & Transplant Surgery **Prof. Pierce Chow**, Associate Consultant NTFGH Colorectal Surgery **Dr. Edwin Yang** and Plastic Surgery Resident **Dr. Low Zhen Luan's** continued assistance for this yearly suturing workshop! (Dr Edwin and Dr Low are Duke-NUS alumni!)



Photo credit: Junwei, Agimaa, Ortho Surgery SIG; Xavier, Junette, Shu Ting and Vanessa, General Surgery SIG

We look forward to Prof. Chow, Dr. Edwin and Dr. Zhen Luan's continued support and more to join us at next year's edition - will keep everyone posted!

We would also like to thank the new Ortho Surgery SIG exco - Junwei, Agimaa for taking charge to organise this event, and we welcome the rest of our incoming exco - Abhay, Nandi and Earl!

SINGHEALTH CAREER DAY

The SingHealth Career Day on 6th July 2024 at SGH Academia saw an impressive turnout, with nearly 400 medical officers and medical students exploring various residency options. The event was staffed by enthusiastic Orthopaedic residents and faculty, ready to answer questions and share helpful advice based on their own experiences.











Visitors had the opportunity to ask questions about residency training and daily life in Orthopaedics, connecting with current residents and faculty. The booth also featured simple quizzes that allowed visitors to test their orthopaedic knowledge in a fun way.

Singapore Integrated Programme (SGIP) PLASTIC SURGERY PROGRAMME RETREAT 2024





Plastic Surgery faculty members and residents work hard all year round but what is work without play?! The programme organises a retreat annually to provide a chance for bonding and mingling in a social setting.

On 14th September 2024, the Plastic Surgery Residency team gathered for their annual retreat at OverWorld VR in Kallang Wave Mall. Split into two groups, participants embraced the challenge of the virtual realm, enhancing teamwork and collaboration through immersive experiences. The day was not only about adventure but also about strengthening connections within the team as they prepared for the year ahead!





CHARITY GOLF

SINGHEALTH DUKE-NUS

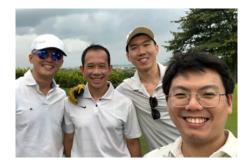
31 July 2024



A Biennial Tradition Supporting Medical Excellence

On 31st July 2024, the SingHealth Duke-NUS Charity Golf event took place at the **Sentosa Golf Club**, **Tanjong Course**, bringing together participants in support of the SingHealth Duke-NUS Academic Medical Centre.

The event aimed to raise funds for medical research, education, and training, with some of the proceeds going into supporting MSKSC ACP.





Supporting Duke-NUS Medical Students

Organised in partnership with Duke-NUS, the event also raised funds to support Duke-NUS medical students. **Minister Tan See Leng**, Minister for Manpower, graced the occasion as Guest-of-Honour.

A heartfelt thank you to all participants and supporters who made this event a success in driving progress in academic medicine.



13

14

CONGRATULATIONS

Academic Titling from Duke-NUS





SGH Hand & Reconstructive Microsurgery

A/Prof ChorgSi Jack SGH Plastic, Reconstructive & Aesthetic Surgery

Congratulations on being awarded your academic titles of Professor and Associate Professors! This is a well-deserved recognition of your hard work, dedication and exceptional contributions to MSKSC!

Clinical Appaintment & Pronotions



Dr Kenneth Wong P.L. Senior Consultant Orthopaedic Surgery, KKH



Dr Christopher Ho W.G. Consultant Plastic Reconstructive & Aesthetic Surgery, CGH



Dr Cheow Xungi Consultant Orthopaedic Surgery, SKH



Dr Zhang Junren Associate Consultant Orthopaedic Surgery, CGH



Dr Liang Weihao Senior Consultant Plastic Reconstructive & Aesthetic Surgery, SGH



Dr Toh Rui Xiang Consultant Orthopaedic Surgery, SGH



Dr Siti Mastura Binte Rahim Consultant Orthopaedic Surgery, CGH



Dr Leong Dalun Associate Consultant Orthopaedic Surgery, CGH



Dr Ng Yeong Huei Senior Consultant Orthopaedic Surgery, SGH



Dr Soong Junwei Consultant Orthopaedic Surgery, SGH



Dr Joshua Li Z.Y. Consultant Sport & Exercise Medicine, CGH



Dr Loh Mei Ling Associate Consultant Plastic Reconstructive & Aesthetic Surgery, KKH



Dr Savitha Ramachandran Senior Consultant Plastic Reconstructive & Aesthetic Surgery, SKH



Dr Dickson Chau H.H. Consultant Orthopaedic Surgery, SKH



Dr Derrick Lam J.L. Consultant Orthopaedic Surgery, KKH



Dr Camelia Tang Q.Y. Associate Consultant Hand & Reconstructive Microsurgery, SGH



Dr Vincent Tay K.S. Consultant Plastic Reconstructive & Aesthetic Surgery, CGH



Dr Neo Ghim Hoe Consultant Orthopaedic Surgery, SKH



Dr Stephanie Chan L.S. Consultant Plastic Reconstructive & Aesthetic Surgery, CGH

CONGRATULATIONS

Best Candidate Anard

European Board of Hand Surgary

In June 2024, I participated in the FESSH Hand Diploma examination in Rotterdam, where I was honoured to receive the Best Candidate Award and a Gold Medal. This experience was deeply rewarding and marked a significant journey for me.

My decision to take this exam stemmed from a desire to push my boundaries as a hand surgeon. I view the pursuit of excellence as a lifelong journey, and this exam was a vital step in my ongoing commitment to learning and improvement beyond residency.

Earning this diploma was essential for staying current with advancements in our field and represents a small step towards becoming the best surgeon I can be. Participating in an international exam allowed me to represent Singapore on a global stage, alongside nearly 100 participants, each with unique expertise. This experience not only highlighted Singapore's hand surgery community but also fostered valuable connections with skilled surgeons worldwide.

I am grateful for this journey, which has enhanced my growth as a surgeon and reinforced my belief in the importance of continuous learning and humility in facing new challenges.



Residency in Sing-Balth Excellence (RiSE) Avards





ATTENDEES: DR TAY KAE SIAN, DR ERIC CHER, DR SOONG JUNWEI, DR HENRY SOEHARNO, DR KENNY TAY



BEST PGY1 TRAINING DEPARTMENT AWARD SENGKANG GENERAL HOSPITAL - ORTHOPAEDIC SURGERY







N5KSC Recipients











A/Prof GohSeokiat Dr

Dr Harry Sochamo

Dr Tay KaeSian

Dr Kerny Tay

Dr Soong Junvei

vei Di

Zainuddin

Dr GaleLim

CONGRATULATIONS

PioneringAdrievenent Dr. Lissa Joseph Completes Doctor of Nursing Pradice (DNP)

We are thrilled to celebrate a remarkable milestone in MSKSC ACP with the achievement of **Dr. Lissa Joseph**, who had recently completed her Doctor of Nursing Practice (DNP). This milestone is not only a testament to her hard work and dedication but also a groundbreaking accomplishment as she is the **first Advanced Practice Nurse (APN)** in MSKSC ACP to achieve this prestigious degree. As an APN specialising in Orthopaedics, she has not only set a new standard for clinical excellence but also paved the way for future APNs in our organisation.

Lissa has been an integral part of our team, demonstrating unwavering dedication to patient care and a profound commitment to advancing the field of orthopaedics. With her extensive clinical expertise and passion for nursing, she consistently delivers high quality care, ensuring that her patients receive the best possible care and outcomes. Her expertise in managing complex orthopaedic conditions has made her an invaluable resource for both patients and colleagues alike.





Completing her DNP is a testament to her relentless pursuit of knowledge and excellence. This programme has equipped her with advanced skills in clinical practice, leadership and evidence-based strategies, enabling her to improve patient care and outcomes. As a DNP-prepared Advanced Practice Nurse in the MSK Acute Care Programme, Lissa serves as an inspiring role model for her peers and future generations.

Publish Avard 2024



A'Prof KevinLim



Dr Allen Wang

Congratulations to **A/Prof. Kevin Lim** and **Dr. Allen Wong** for the Publish! Award 2024.

The SingHealth Publish! Award is a prestigious accolade awarded to SingHealth researchers who have published quality articles in internationally-acclaimed scientific or medical journals.

The award aims to encourage 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.





Hanoi Outreach Trip

17



From 17 to 21 December 2024, a delegation from **SingHealth's International Collaboration Office**, **SGH Division of Musculoskeletal Sciences** and **SGH Patient Liaison Service** visited Hanoi, Vietnam, to strengthen clinical and institutional partnerships, explore crossborder healthcare solutions and identify opportunities for academic and research collaborations. During the four-day visit, the delegation met with leaders from **108 Military Hospital**, **Viet Duc University Hospital** and **Hanoi Medical University Hospital (HMUH)**.





Engagement Dinner: Establishing Partnership Opportunities

The trip culminated in a SingHealth-hosted engagement dinner with our Vietnamese counterparts. This event offered an additional forum to discuss healthcare challenges and explore potential collaborations with our partners.

Looking Ahead: A Strong Foundation for Future Collaborations

The visit marked a significant step in healthcare collaborations between SingHealth and Vietnamese institutions through formal agreements, joint academic and research initiatives. Such partnerships contribute to advancing academic medicine goals through enhancing patient care as well as supporting professional training and development in the long term, benefitting both SingHealth and its Vietnamese partners.







18

BEIJING OUTREACH TRIP 2024

From 11th to 14th July 2024, delegates from SGH Orthopaedic Surgery went to Beijing for joint symposiums on Musculoskeletal Sciences (MSKSC) in collaboration with Ji Shui Tan Hospital and Peking University International Hospital. This initiative followed an earlier outreach trip in January 2024, aimed at solidifying partnerships through a Memorandum of Understanding (MOU).

Key Objectives:

- Joint Symposiums: Discussed complex cases and cuttingedge research in Orthopaedic Surgery.
- **MOU Signing:** Formalised collaboration for shared clinical exchanges, education and research.
- Clinical Service Collaborations: Developed programmes for joint surgeries and patient care protocols.
- **Research Partnerships:** Established joint research initiatives and registry projects.

The two-day programme fostered collaborations in research and enhanced transparency in clinical data sharing, ultimately strengthening academic relationships between SGH and prominent Chinese institutions.





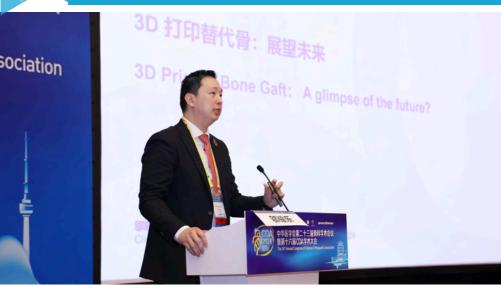






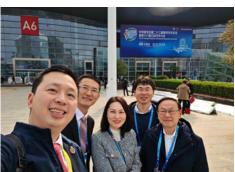


BRIDGING BORDERS: MY YEAR OF LEARNING AND COLLABORATIONS IN CHINA'S ORTHOPAEDIC LANDSCAPE



the chinese saying Δs qoes reading a million books cannot compare to travelling a million miles" and I have had the chance to travel around the vast lands of China over the past year to exchange ideas, share experiences and forge friendships. I had the pleasure of going to Beijing's most established and renowned Orthopaedic & Trauma Centre, Ji Shui Tan Hospital for my HMDP under the tutelage of Professor Yang Minghui. I was exposed to a high clinical load of rare cases and got the chance to how they harnessed see technologies like robotics, AI and 3D printing in clinical work to benefit trauma patients.





As we all know, China is a huge country. Even within the country, there were many exchange fellows from other cities and provinces with whom I had the chance to interact and understand their health systems and orthopaedic departments in comparison to the **JST**. In similar fashion to us, the orthopaedic fraternity in China stays connected with each other through the China Orthopaedic Association (COA) and by organising various conferences throughout the year, everyone is able to keep abreast with the latest developments, research findings and practice-changing evidence.

I strongly encourage colleagues who are considering to further their training in China to go forth and enjoy!

I am glad that our department is very supportive of international collaborations. We have visited JST Hospital, Beijing University Third Hospital, **Beijing University** International Hospital and Tsinghua Changgung Hospital and also hosted them in Singapore. This strengthening of bilateral ties will definitely help with clinical care, innovation & research and crossinstitution multi-disciplinary training.

I have had the honour of being invited to speak at various national and international workshops and conferences such as:

- Qingdao Geriatric Trauma Updates Congress
- AO Trauma Course Pelvic and Acetabular Fracture Management
- AO Day during COA ASM
- First Chengdu Chongqing International Trauma Summit Forum

to share our SGH experience. Of course, these were also perfect opportunities for me to visit these beautiful cities and try their cuisines!







This intensive 4-hour course was designed for general surgeons and surgical trainees practising in rural environments and focused on essential procedural techniques for managing extremity injuries and soft tissue complications in resource-limited settings.

The course was designed to accommodate a total of 40 participants (20 hands-on participants & 20 observers). This structure ensures an optimal learning environment, allowing for direct engagement and observation.



Lecture & Handson Session

The course was structured into two main components: a 2-hour lecture session and a 2-hour hands-on workshop, providing a comprehensive blend of theoretical knowledge and practical skills.

Funded by **SDGHI's Global Surgery Programme**, this workshop aimed to enhance surgical capabilities in challenging settings. By providing targeted training in essential procedures, the course seeks to improve patient outcomes in rural and underserved areas, contributing to the broader goal of enhancing global surgical care.





Health



Bangladesh faces a critical challenge with burns, affecting approximately 173,000 children annually and causing significant mortality morbidity. and In response to this pressing issue, SingHealth launched a comprehensive programme in 2013 to improve burns care across the country.



The initial phase, conducted over three years, successfully trained over 900 healthcare workers in various aspects of burn management. This included establishing a skin bank at **Sheikh Hasina National Institute of Burn and Plastic Surgery** and implementing a multidisciplinary approach to acute and rehabilitative care.

As part of this ongoing initiative, a recent skin banking workshop was held at Singapore General Hospital (SGH) from 23rd to 27th September 2024. This workshop represents a significant step in transferring knowledge and skills to enhance Bangladesh's capacity for effective burns care and management.

Programme

- Donor evaluation and skin recovery processes
- A sharing session to understand the current status of skin bank setup in Bangladesh and identify specific learning objectives
- Practical demonstrations and hands-on training in skin processing and cryopreservation
- An overview of skin banking processes and guidelines in Singapore





The Next Phase

Building on this foundation, the next phase aims to address remaining gaps and challenges unique to developing countries like Bangladesh. The project will focus on:

- Identifying current healthcare gaps and challenges
- Developing improved burn care protocols and standards
- Enhancing local skin banking competencies
- Providing advanced training through workshops, fellowships and clinical attachments

Enhancing Diabetic Limb Salvage through Multidisciplinary Surgical Collaboration

Best Team Award

Clinical Practice Improvement
Diabetic Limb Salvage Team

Sengkang General Hospital

Diabetes mellitus is a significant public health issue in Singapore, currently affecting over 400,000 individuals, with projections exceeding 1 million by 2050. Diabetic foot ulcers (DFUs) impact 19-34% of diabetic patients, and if untreated, can lead to infections and lower extremity amputations (LEAs). Singapore has one of the highest global rates of diabetes-related LEAs, with 90% of amputations in 2021 linked to diabetes, and a grim oneyear mortality rate of up to 30% post-amputation.

In response, the Sengkang General Hospital (SKH) established the Diabetic Limb Salvage (DLS) team in 2021. Evolving from the TOP (Team Ortho-Podiatry) service led by A/Prof. Francis Wong, the DLS team is a multidisciplinary collaboration of specialists from various fields, including orthopaedics, plastic and hand surgery, vascular surgery and endocrinology, along with allied health professionals. The team aims to reduce amputations, accelerate wound healing, and help patients regain independence.

Clinical Outcomes through Multidisciplinary Collaboration

Dr Kok Yee Onn, Tan Shi Ning, Caleb ng, Bradley Yuen, Asst Prof Francis W

Ma Zhongzheng, Dr Dawn Chia, Mardiana, Dr Le Other I Dr Feng Jiajun, Dr Png Wenxian, Kimber

Outcome	With DLS Service	Historical Figures
Major Amputation Rate	1%	9%
Minor Amputation Rate	5%	13%
Wound Healing Rate	95%	68%
Median Healing Duration	58 days	111 days
Recurrence Rate (1 year)	6%	25%

This success is largely due to the collaboration among orthopaedics, plastic, and hand surgeons, who employ reconstructive techniques to preserve limb function, ensuring patients recover from ulcers and maintain mobility, thus reducing future complications.

A key challenge for the DLS team was managing recalcitrant ulcers, especially in patients with Charcot foot deformities and complex neuropathy. To address this, clinical leads **Dr. Png Wenxian** and **Dr. Feng Jiajun**, along with allied health professionals, participated in a Health Manpower Development Plan (HMDP) fellowship in diabetic foot orthoplastic reconstruction at Manchester University Hospital, UK, in November 2023. They received specialised training from a multidisciplinary team led by **Professors Jason Wong** and **Anand Pillai**, as well as guidance from diabetic foot pioneers **Professors Andrew Boulton** and **Frank Bowling.**

The knowledge gained has enhanced the DLS team's capabilities, allowing them to perform more advanced reconstructions for Charcot foot, tendon dysfunction and neuropathy. These complex procedures are now conducted in a single session, reducing anaesthesia exposure for high-risk diabetic patients.



Comprehensive Patient Journey: From Assessment to Reconstruction

Upon admission, patients with DFUs are assessed by the DLS team using duplex scans and X-rays. Patients are reviewed twice weekly during multidisciplinary team (MDT) rounds, which include various specialists. Focus areas are further debridement and preserving the foot's tripod structure for better mobility.

The endocrinology team optimises medical conditions, family medicine provides psychosocial support, and podiatry and physiotherapy promote safe mobilisation. Dieticians ensure nutritional optimisation for diabetic control and wound healing.

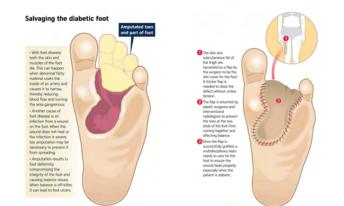


DLS teamwork in treating patients

Surgical Innovation and Reconstruction

During infection management, the DLS team creates a customised plan to cover the DFU, improve limb function, and reduce recurrence. Minimally invasive techniques such as tendon releases and nerve decompression, lower plantar pressure and enhance sensation. Charcot deformity is corrected for better shoe fit and ulcer prevention.

These complex procedures require collaboration among orthopaedics, plastic, and hand surgeons, often performed in one session to reduce anaesthesia risks. Postoperatively, the healthcare team manages recovery: nurses handle wound care, podiatrists provide specialised footwear, and physiotherapists assist with mobility.



Emphasis on Prevention and Long-term Care

The DLS team's commitment goes beyond initial wound healing, focusing on preventing recurrence through a comprehensive approach that includes psychosocial, medical, and surgical interventions. The Complex Care Needs Clinic (CCNC) and endocrinology teams ensure ongoing glycemic control and diabetes management adherence. Dietitians offer tailored nutritional advice, while podiatrists provide foot health support with insoles and regular care. When conservative measures are inadequate, the orthopedic surgery team performs corrective procedures like Charcot foot reconstruction and tendon releases.

To sustain outcomes, the DLS coordinator conducts follow-ups every 3-6 months for high-risk patients, facilitating early interventions. This holistic, multidisciplinary approach has improved outcomes and enhanced the quality of life for patients with diabetic foot disease.

Conclusion: A Collaborative Surgical Model for Diabetic Limb Salvage

The success of the DLS service stems from its integration of diverse surgical and medical disciplines, providing a comprehensive, patientcentred approach to diabetic foot disease. Through close collaboration among orthopaedics, plastic, and hand surgeons, along with vascular, endocrinology and allied health teams, the DLS service has significantly improved patient outcomes, reduced amputation rates, and set a new standard for diabetic foot care in Singapore.

This model of integrated care, driven by innovation and multidisciplinary teamwork, exemplifies how surgeons can collaboratively tackle the growing challenge of diabetic foot disease.



Acknowledgements

We extend our heartfelt gratitude to the SKH MSK leadership—A/Prof. Wong Merng Koon, Dr. Poon Kein Boon, and Dr. Pearlie Tan—for their unwavering support in establishing the Diabetic Limb Salvage (DLS) service. We also acknowledge the vital contributions of surgeons Dr. Eric Cher, Dr. Ali Zada, Dr. Ch'ng Jack Kian from Vascular Surgery, Dr. Dawn Chia, Dr. Chew Khong Yik, Dr. Kok Yee Onn, and Dr. Allen Wong. Special thanks to **Dr. Farah Irani** and **Dr. Leong Sum** from Interventional Radiology, as well as the support from Endocrinology and Population Health. We are also grateful to the allied health professionals in **Podiatry**, **Physiotherapy, Dietetics**, and **Nursing** for their essential roles in this initiative's success.

MSKSC GRAND ROUND



COFFEE CHAT: KKH PLASTIC, RECONSTRUCTIVE & AESTHETIC SURGERY



Zoom Screenshot of the panelists



On 11th September 2024, the KKH Cleft & Craniofacial Centre (CCRC), Department of Child Development (DCD), Duke-NUS and MSKSC ACP organised a Coffee Chat for 65 Speech Therapists and educators. Participants explored feedback challenges and the R2C2 framework, focusing on how to apply it in their work and personal lives. The discussion highlighted the importance of kindness in supporting ourselves, our students one another and as a community.

FAAD WEBINAR: ALLIED HEALTH PROFESSIONALS

The fourth and final webinar in the MSKSC ACP Lunchtime Webinar Series, led by **A/Prof. Dinesh Shree Kumar**, was held on 19th July 2024. Allied Health colleagues discussed the crucial role of Allied Health Professionals in modern healthcare, emphasising their contributions to patient outcomes and interdisciplinary collaborations. This session marked an insightful conclusion to our engaging series!



Immersive view for Q&A and panel discussion



Collaborations with SGH Patient Liaison Service (PLS)



Webinar - Ankle Pain: Kick It To The Curb

The webinar featured speakers **Dr. Toh Rui Xiang, Dr. Li Zongxian** and **Mr. Pu Zhenhua**, who shared their expertise on ankle injuries and osteoarthritis, discussing prevention strategies and the latest treatment options. **Dr. Tay Kae Sian**, head of the Foot & Ankle Service was the moderator for the session. With 700 participants, the event highlighted the widespread interest in this topic. Participants learned a great deal about how ankle pain affects individuals of all ages and the implications of neglecting injuries, which can lead to long-term damage such as ankle arthritis, significantly impacting daily activities and lifestyle choices.

Tune in to the SGH YouTube Channel to view the recordings of these webinars!









Knee Preservation Public Symposium

Knee preservation offers a valuable alternative to knee replacement surgery by alleviating pain while maintaining the integrity of the native knee joint. This is the 4th Knee Preservation Public Symposium, organised by the Singapore Knee Preservation Society (SKPS) on 19th October 2024 at the Global Indian International School.



MSK Media



Singleatin e Soloribe Co 16 C A Share & Cip , Save ...

WHAT'S CAUSING My knee pain? How I Treated Knee Osteoarthritis

How I Treated Knee Osteoarthritis. SingHealth Answers All!"

Join medical experts **A/Prof. Lincoln Liow, Dr. Don Koh,** and **Sister Rajashulakshana** as they tackle the pressing issues surrounding knee pain. Created in partnership with YouTube, this comprehensive discussion deep dives into the cause of knee osteoarthritis and reveals cutting-edge, evidence-based treatment strategies that has transformed our clinical practice.

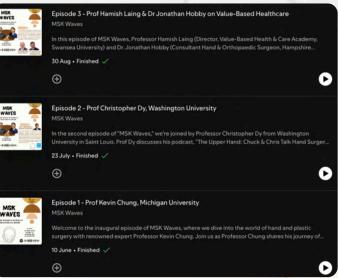






ON AIR

MSK Waves Podcast



Check out our podcast, MSK Waves, where we explore the latest trends in healthcare! Join us as we host a variety of guests who share insights on topics like healthcare innovation, research and work-life balance.



Scan the barcode on your Spotify App to tune in!









On 2nd August 2024, the Division of MSKSC and DSSO hosted a vibrant **Surgical Resus Round**, where faculty members came together to enjoy a night of delicious food and lively staff performances.

The event provided an opportunity for everyone to mingle and strengthen connections over good drinks and great company. In celebration of DSSO's 5th anniversary, we also held a fun painting session, allowing everyone to get creative and commemorate this significant milestone.

A special highlight was the celebration of **A/Prof. Henry Ho**'s birthday, Chairman of the Division of Surgery & Surgical Oncology, making the evening even more memorable.



MSKSC × DSSO

RESUS ROUND















2-AUC-24 ACADEMIA | LEVEL 3

JUL - DEC 2024

Meet our SIKH Ortho Team!

SENIOR EXECUTIVE

Reach me at: jane.neo.a.h@skh.com.sg

JANE NEO

I am a passionate individual who finds immense joy in the realms of craftwork and traveling, where creativity and exploration take centre stage. In my professional life, I excel at managing resources, a role that includes everything from coordinating doctors' schedules to overseeing financial matters. My guiding principle is to foster hope and serve as a positive force within my community, believing that small acts of kindness can lead to significant change. While my career and personal interests are important to me, my top priority remains my deep commitment to my loved ones, ensuring that I am always present and supportive in their lives. Balancing these elements allows me to live a fulfilling life, where each day is infused with purpose and passion.

Reach me at: jacelyn.wan.s.l@skh.com.sg



Hi, I'm Jacelyn from SKH Orthopaedics. I am a resilient and passionate worker who has an unwavering dedication to ensuring excellence in all I do.

I am a dedicated mother to two cheeky boys who keep me on my toes and fill my life with laughter. Balancing my family life with grace, I am committed to providing a loving and nurturing environment for my children.



SENIOR ASSOCIATE EXECUTIVE

28

29

Reach me at: yen.tan.yi.chuan@skh.com.sg



Hello! I am Yen. As an executive with the Department of Orthopaedic Surgery, SKH, I get to work closely with my fellow colleagues behind the scenes to ensure day-to-day activities run smoothly.

My ability to remain calm under pressure has many a times allowed me to make informed decisions. I approach challenges with a levelheaded mindset, which helps me manage competing priorities.

I tend to take a relaxed and flexible approach to life, by focusing on the present moment. I believe in living day by day and staying adaptable to what may come my way. This mindset helps me manage stress effectively, stay grounded and just enjoy life to the fullest.



EXECUTIVE SKH ORTHO



Team & Contacts

KEY APPOINTMENT HOLDERS

Academic Chair Prof Tan Mann Hong tan.mann.hong@singhealth.com.sg

Academic Deputy Chair Prof Tan Bien Keem tan.bien.keem@singhealth.com.sg

Director, Clinical Quality & Governance Assoc Prof Agnes Tan Beng Hoi agnes.tan.b.h@singhealth.com.sg

CLINICAL

Vice-Chair, Clinical Services Assoc Prof Darren Tay Keng Jin darren.tay.k.j@singhealth.com.sg

RESEARCH

Vice-Chair, Research Assoc Prof Joyce Koh Suang Bee joyce.koh.s.b@singhealth.com.sg

Deputy Vice-Chair, Research (Clinical Research) Dr Kinjal Mehta kinjal.vidyut@singhealth.com.sg

Deputy Vice-Chair, Research (Biomechanics) To be appointed

Deputy Vice-Chair, Research (Cell Therapy) To be appointed

Deputy Vice-Chair, Research (Device Dvlpmt) To be appointed

Deputy Vice-Chair, Research (Health Services) To be appointed

FACULTY AFFAIRS & ACADEMIC DEVELOPMENT (FAAD)

Vice-Chair, FAAD Prof Andrew Tan Hwee Chye andrew.tan.h.c@singhealth.com.sg

Deputy Vice-Chair, FAAD (Medical Faculty) Assoc Prof Inderjeet Singh Rikhraj inderjeet.rikhraj@singhealth.com.sg

Deputy Vice-Chair, FAAD (Associate Medical Professional) Assoc Prof Dinesh Shree Kumar shree.kumar.dinesh@singhealth.com.sg

EDUCATION

Vice-Chair, Education Assoc Prof Arjandas Mahadev arjandas.mahadev@singhealth.com.sg

Deputy Vice-Chair, Education Dr Mohd Ashik Zainuddin mohammad.ashik.zainuddin@singhealth.com.sg

Deputy Vice-Chair, Education Dr Robert Yap Tze-Jin robert.yap.t.j@singhealth.com.sg

STRATEGIC INITIATIVES

Vice-Chair, Strategic Initiatives Assoc Prof Ong Yee Siang ong.yee.siang@singhealth.com.sg

Deputy Vice-Chair, Innovation Assoc Prof Wong Merng Koon wong.merng.koon@singhealth.com.sg

Deputy Vice-Chair, Philanthropy Assoc Prof Andrew Chin Yuan Hui andrew.chin.y.h@singhealth.com.sg

RESEARCH PERSONNEL

Senior Research Fellow I Assoc Prof Andy Yew Khye Soon andy.yew.k.s@sgh.com.sg

Assistant Director, Transplant Research Assoc Prof Alvin Chua Wen Choong alvin.chua.w.c@sgh.com.sg

Engineer Ms. Pivatidevi Pareatumbee pivatidevi.pareatumbee@sgh.com.sg

Clinical Research Coordinators: Mr. Teo Chengjun chengjun.teo.h@sgh.com.sg

Ms. Shameemah Mohd Fouze shameemah.mohamed.fouze@sgh.com.sg

Mr. Adam Farid Tang Ming Yang adam.farid.tmy@sgh.com.sg

Ms. Josephine Lam Pei Wen josephine.iam.p.w@sgh.com.sg

ADMINISTRATION

Deputy Director Ms. Tiffany Thng Suyin tiffany.thng.suyin@sgh.com.sg

Assistant Manager Ms. Nurul Azizah Binte Johari nurul.azizah.johari@sgh.com.sg

Assistant Manager Ms. Tan Yean Fang tan.yean.fang@sgh.com.sg

Senior Executive Mr. Ivan Neo Lin Wen ivan.neo.l.w@sgh.com.sg

Senior Executive Ms. Tee Yi Lin tee.yi.lin@sgh.com.sg

Executive Ms. Krystal Myat Thiri Aung krystal.aung.m.t@sgh.com.sg

Executive Ms. Vivienne Chia Hwee Qi vivienne.chia.h.g@singhealth.com.sg

Associate Executive Ms. Jayaparvathy V jayaparvathy.v@sgh.com.sg

Senior Associate Ms. Nur Azura Binte Abdul Majid nur.azura.a.m@sgh.com.sg

MSK MINIONS Phantomof the Oops

One fine day in office...

The team is buzzing with excitement, planning their outfits for the SGH Dinner & Dance. After some back-and-forth, they've decided on a **Phantom of the Opera** theme. And just like that, the costume creativity begins!

But when the big day finally arrives...

Umm.. so we all Yep, low effort I mean we're I'm just here I'm just happy chic. Who knew technically all in kind of for the lucky to be here! minimalism would misunderstood black & white... draw! save the day... the brief right? That's 'Phantom' 00 right? Y'all really low effort eh. Look at me with my wig!

Well, let's just say reality didn't quite live up to expectations!

Meanwhile..

One of the minions, **Jaya** was part of the organising committee and obviously the most 'on brand' among us!

> **Jaya** as **Tracy** from 'Hairspray The Musical'

31

JUL - DEC 2024

IEI

 \bigcirc

July - December Edition | 2024

Keeping up with MSKSC ACP

O @msksc_acp

https://www.singhealthdukenus.com.sg/acp/musculoskeletalsciences