NUS National University of Singapore | Yong Loo Lin School of Medicine

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Issue #01

# NUS Medicine CHS-Connect

*Connecting Minds, Advancing Health Across Asia-Pacific*

## Welcome Note

**Dr Gene Chan**

*Director, CHS, and Senior Consultant, Emergency Medicine, NUHS*

### Welcome to the First Issue of the CHS E-newsletter

It is my great pleasure to welcome you to the inaugural edition of NUS Medicine CHS-Connect, an e-newsletter of the Centre for Healthcare Simulation (CHS). As the CHS Director, I am excited to begin this new chapter with you. This newsletter represents more than a communication platform; it is a shared space where ideas can be sparked, collaborations can deepen, and our community can continue to shape the future of healthcare together.

### ABOUT CHS

CHS was founded with a bold mission to advance healthcare education and patient safety through innovative simulation-based training, impactful research, and meaningful partnerships. Our centre is home to passionate educators and clinicians who are committed to pushing boundaries and transforming the learning experiences that ultimately lead to better patient care.

### PURPOSE OF THIS NEWSLETTER

Through this newsletter, we hope to strengthen the connections that unite our Asia-Pacific community. Each issue will highlight our collective efforts, celebrate our achievements, and inspire new ideas. Above all, we hope it becomes a meaningful platform for **information exchange, collaboration, and professional engagement**, enabling us to learn from one another and continue to grow as a region dedicated to excellence in simulation and education.

### REFLECTIONS ON 2025

As we look back on 2025, we are proud of what we have accomplished together. This year, CHS deepened its collaborations with CUTE (Connective Ubiquitous Technology for Embodiments) Centre and with the Division of Industrial Design at the NUS College of Design and Engineering, working to create innovative solutions that address the evolving needs of healthcare. We also expanded our capabilities in 3D printing and co-hosted our first workshop at the S3 Conference with the NUS Centre for Additive Manufacturing, demonstrating how emerging technologies can enrich training and education.

A particularly meaningful milestone was the launch of our inaugural CHS Fellowship Programme, which welcomed fellows from across the region and marked an important step in building a vibrant community of simulation leaders who learn, share, and grow together.

These achievements reflect the dedication, creativity, and passion of our colleagues. They remind us of the possibilities that emerge when we work with purpose and unity.

As we look ahead to 2026, I hope this newsletter will energise and inspire you, just as your support inspires us. Let us continue striving, innovating, and shaping the future of healthcare together.

**Thank you for being part of our community.**

**We look forward to continuing this journey together in 2026.**

EVENTS

IN PICTURES

# Advancing Simulation and MedTech: CHS Highlights from Apr–Nov 2025

## AsiaSPEC Inaugural International Conference Held on 25 - 27 Apr 2025

**Promoting Humanism in Healthcare Through SP Methodology**

The **Asian Standardised Patient Educator Collaborative (AsiaSPEC)** organised a 3-day conference in Nagoya, Japan and this took place from 25-27 April 2025.

This conference was designed to promote Standardised Patient (SP) methodology in Asia. The theme of the conference was "Innovating SP methodology to strengthen humanism in healthcare education across Asia". Our plenary speaker was **Professor Debra Nestel**, a global leader in simulation in medical education as well as simulated patient methodology. The conference provided relevant and up-to-date information in this field through pre-conference workshops, plenary lectures, symposiums, panel discussions, small group interactions, oral and poster presentations.

Topics included SP programme management, case writing, SP training, feedback, assessment and quality assurance. Participants were able to meet and network with practitioners and experts from the Asia Pacific region. We had **117 participants representing 9 countries** in attendance.



As members of the international committee of the **Association of Standardised Patient Educators (ASPE)**, three Asian SP educators felt compelled to expand the reach of SP methodology in Asia. In 2022, the AsiaSPEC was formed by a larger group of SP educators in Asia who are passionate about SP methodology and its many applications in healthcare professional education. We wanted to empower educators in Asia to embrace this methodology and reap the benefits of human simulation. Our mission is to promote SP methodology in Asia, to connect SP educators in Asia for networking, collaboration and to share resources. Connect with us at asiaspec.org.

**Adjunct Associate Professor Nicola Ngiam** from the **Centre for Healthcare Simulation, NUS Medicine,** is the chairperson of AsiaSPEC and was the co-chair of the conference. **Sylvia Wijaya,** an experienced SP educator at NUS, presented a poster to share her work on engaging persons with disabilities as SPs. We have a **pool of 20 persons with disabilities** who work at the NUS SP programme. Our findings show that training persons with disabilities to be simulated patients within the framework of an SP programme is effective use of training expertise and administration. It requires additional manpower and a willingness to learn and adapt to different communication needs of this community.

IN PICTURES



# Reimagining Healthcare: Highlights from NUS Medicine's Innovation Showcase

On 16 July 2025, the Centre for Healthcare Simulation (CHS) at NUS Medicine hosted a closed-door event titled **"Celebrating Innovation and Emerging Technologies"**, bringing together clinicians, educators, researchers and partners from across NUS and the wider healthcare ecosystem. The evening highlighted how innovation, data and digital technologies are transforming patient care, medical education and research.

A key highlight was a showcase of medtech and innovation projects led by CHS' Developing Technologies & Innovation (DTI) division in collaboration with the Division of Industrial Design and HealthX. Developed by interdisciplinary teams of medical and design undergraduates, the projects demonstrated the power of cross-disciplinary collaboration in addressing real clinical challenges.

In his opening address, **Guest of Honour Prof Chong Yap Seng, Dean of NUS Medicine**, reaffirmed the School's commitment to a future of healthcare driven by digital technologies, AI and data. He highlighted initiatives such as the compulsory Minor in Health Data Science and AI and the S$125 million SIMFONI platform, aimed at advancing AI-enabled clinical decision-making. Prof Aymeric Lim, CEO of National University Hospital, also emphasised the importance of strong partnerships in ensuring innovation translates into meaningful healthcare impact.

The event featured showcases by **HealthX**, **NUS CUTE (Connective Ubiquitous Technology for Embodiments) Centre** and the **NUS Centre for Additive Manufacturing (AM.NUS)**, highlighting innovations ranging from medical devices and simulators to virtual reality, digital twins and 3D-printed models.

These initiatives reflect NUS Medicine's commitment to interdisciplinary collaboration, innovation-led education and preparing the healthcare community for a rapidly evolving future.

Through platforms such as this, **CHS continues to serve as a catalyst for innovation at NUS Medicine, bringing ideas, technology and people together** to translate emerging possibilities into meaningful advances in healthcare education, research and patient care.

EVENTS

IN PICTURES

# Workshop Recap: Shaping the Future of Healthcare Simulation with 3D Printing

In November 2025, Dr Alexander Ng, Director of Design, Technologies & Innovation at the Centre for Healthcare Simulation (CHS), co-taught a pre-conference workshop titled **"Basic Skill in Simulator Building, 3D Printing and Beyond"** at the SingHealth Duke-NUS S3 Conference 2025. Co-facilitated by Assoc Prof Yen Ching-Chiuan, and Mr Chong Zi En, the workshop introduced healthcare simulation professionals to foundational skills in simulator design and construction.

Through guided exercises and case examples, participants explored key design considerations, commonly used 3D printing and manufacturing materials, and practical methods for integrating these materials to align simulator specifications with learning objectives. A hands-on segment allowed participants to work with basic components used in simulator building, while the later part of the workshop offered insights into Singapore's 3D printing landscape, showcasing various printers, materials, case studies, and ongoing projects.

SCENES FROM THE DAY


Building on the strong interest and positive feedback from the November session, **Dr Ng will lead a 3D Printing Symposium at CHS in August 2026, which will further expand on the applications of additive manufacturing in healthcare simulation and education.**

Interested learners can look out for more details in our April 2026 e-newsletter.

# INSIDE CHS: MEET THE FACULTY
# ADJ ASSOC PROF NICOLA NGIAM

Meet **Adj Assoc Prof Nicola Ngiam,** a paediatric critical care physician with a passion for paediatric palliative care.

She is Director of the **NUS Standardised Patient (SP) Programme** and **Deputy Director of the Centre for Healthcare Simulation**. Since 2012, her simulation work has evolved from high-fidelity mannequins to human simulation, shaping the next generation of healthcare professionals.

## GROWING A COMMUNITY: THE STORY BEHIND THE NUS SP PROGRAMME

I became Director of the NUS SP Programme in 2012, when SP methodology was largely limited to OSCEs. Since then, the programme has expanded to support the teaching and assessment of clinical and communication skills, physical examination teaching, and structured feedback across medicine, nursing, pharmacy, and dentistry.

Today, we work with **over 200 SPs**, many of whom join through word of mouth. Early challenges included demonstrating the value of SP methodology to faculty, which we addressed by investing in high-quality SP training so that SPs could consistently help students meet learning objectives. Their consistency and authenticity **helped the programme grow to support about 23,000 hours of SP-facilitated activities each year.**

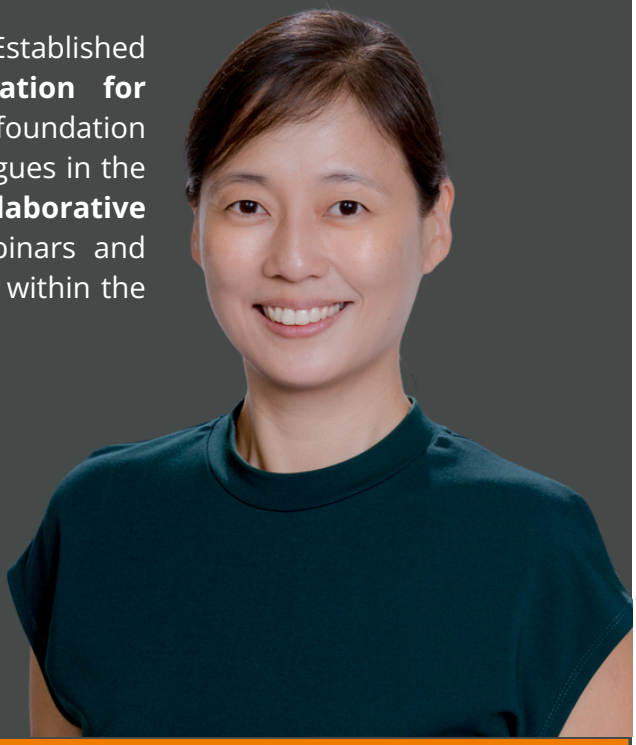
> *"Watching the programme grow and seeing it meet the needs of the curriculum has been a real source of pride for me."*

What I'm most proud of is not just the programme's growth, but the **strong sense of community within it**—one where SPs value the friendships they've formed and the support they receive from the team. Highlights include the Physical Examination Teaching Associate (PETA) programme and our collaboration with the Department of Family Medicine to involve persons with disabilities as SPs, both of which continue to inspire me and our team.

## STARTING SMALL, THINKING BIG: ADVICE FOR BUILDING AN SP PROGRAMME

My advice is simple: **be courageous.** Setting up an SP programme comes with challenges, but if you believe in the value of SP methodology and experiential learning, keep advocating for it. Start small—once faculty and students experience well-trained SPs, support and momentum will naturally follow.

It's also important to get trained in SP methodology. Established best practices, such as those from the **Association for Standardised Patient Educators**, provide a strong foundation that can be adapted to suit your institution. For colleagues in the region, the **Asian Standardised Patient Educator collaborative** at asiaspec.org is a valuable resource, offering webinars and international conferences that encourage idea-sharing within the Asian context.



## BEYOND THE WHITE COAT: HOW ASSOC PROF NICOLA NGIAM UNWINDS

To relax at the end of the day, I enjoy walking and spending time in nature. I also love baking and cooking for my family, which I find both grounding and rewarding. To stay active and nurture my creative side, I take dance classes as a fun way to unwind while getting some exercise.

# Building Global Connections through the CHS Experiential Simulation Programme

*Yokohama City University students experience CHS simulation programme.*

From 27 October to 7 November 2025, CHS hosted three undergraduate medical students from **Yokohama City University (YCU), Japan**, for a short elective under the **CHS Experiential Simulation Programme.**

As part of this exchange, CHS also welcomed YCU representatives, **Dr Suenaga** (pictured above, left) , Associate Director of the Medical Global Advancement Department, and **Ms Kayo Tazawa** (pictured above,right) from the Medical Education Internationalisation Section, Medical Academic Affairs Division, during their visit on 4 and 5 November 2025.The visit was hosted by **Assoc Prof Suresh Pillai**, Director of International Liaisons, CHS.


The visit fostered meaningful discussions on simulation-based education and opportunities for academic collaboration. Through such partnerships, the CHS Experiential Simulation Programme continues to provide international medical learners with immersive experiences in healthcare simulation and education.

CHS welcomes **other universities interested in similar arrangements** to collaborate with us in delivering transformative learning opportunities that advance global healthcare education. Interested parties to contact **Mr Edwin Lim**, Assistant Director (Operations & Administration), CHS, at edwinlyp@nus.edu.sg.

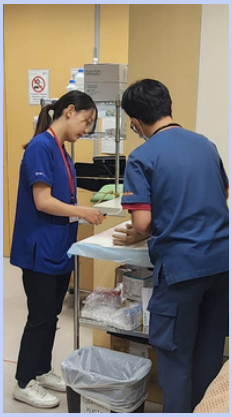
★★★★★

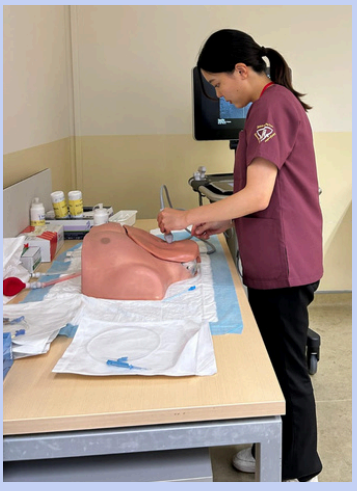
It is an immersive and highly practical programme that offers students an inspiring view of international medical education and motivates them to grow both clinically and personally.

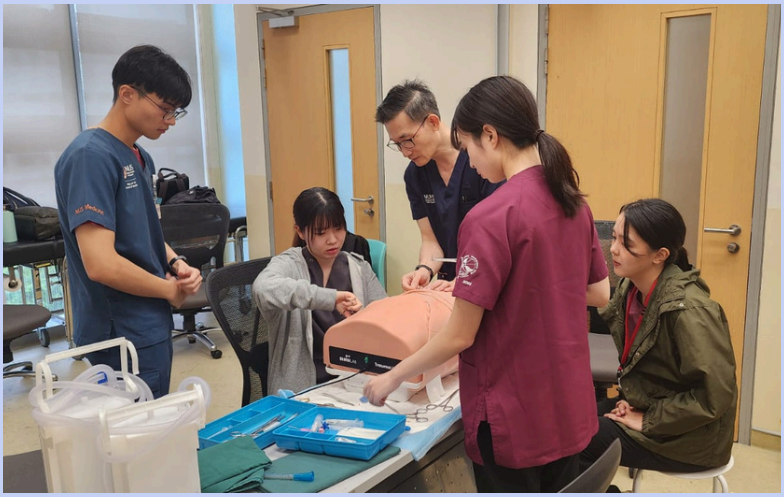
**Ayaka Kozuka**

# FELLOWSHIP, FRIENDSHIP & COLLABORATIVE LEARNING

IN PICTURES





# CHS FELLOWSHIP PROGRAMME

In November 2025, the Centre for Healthcare Simulation (CHS) had the pleasure of hosting colleagues from **Universiti Kuala Lumpur, Royal College of Medicine Perak (UniKL RCMP)** as part of the CHS Fellowship Programme. Over their week-long attachment, the fellows engaged in simulation teaching activities, observed in-situ simulations at the National University Hospital, and met with CHS educators, technologists, and leadership to exchange ideas on simulation curriculum design, centre operations, and emerging technologies.

Their participation highlights the growing importance of cross-institution collaboration in strengthening simulation-based education across the region. CHS **warmly welcomes similar partnerships with universities and training institutions interested in faculty development, operational benchmarking, or simulation education exchange.** We look forward to building more regional collaborations that advance healthcare education together.

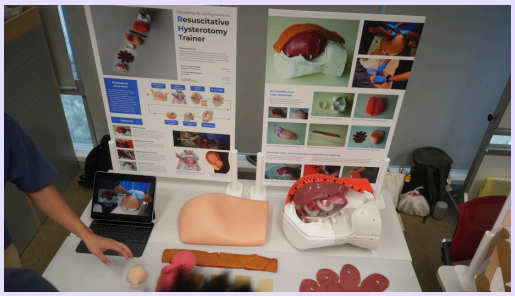
The visiting delegation comprised **Associate Professor Dr Elvind Yip (Deputy Dean, Academic, Faculty of Medicine), Ms Pek Yah San (Head of Nursing),** and **Ms Rasida Sahraduin (Senior Lecturer, Medical Imaging, Faculty of Pharmacy and Health Sciences)**. In the accompanying photo, they are pictured with **Associate Professor Chen Zhi Xiong (with tie), Assistant Dean (Education), NUS Yong Loo Lin School of Medicine.**


A shared meal at Bismillah Briyani Restaurant in UTown with our UniKL RCMP colleagues — a memorable moment from their fellowship week.

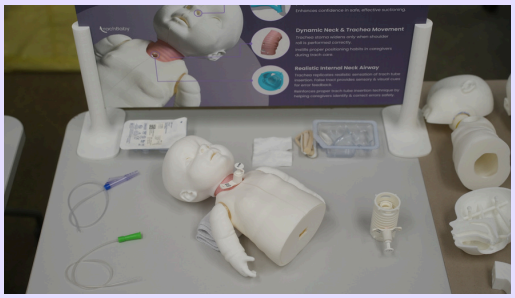
# Design for Medicine 2025: Innovation in Action

*Discover how cross-disciplinary teams of clinicians and design students brought creative medtech solutions to life at last November's showcase.*

The annual **Design for Medicine MedTech Showcase**, jointly organised by the **Centre for Healthcare Simulation, Developing Technologies & Innovation (NUS Medicine)** and the **Division of Industrial Design, NUS,** once again highlighted the value of interdisciplinary collaboration in shaping the future of healthcare. Held on 25 November 2025, the event brought together clinicians from a wide range of specialties with design students who share a passion for solving real clinical problems.









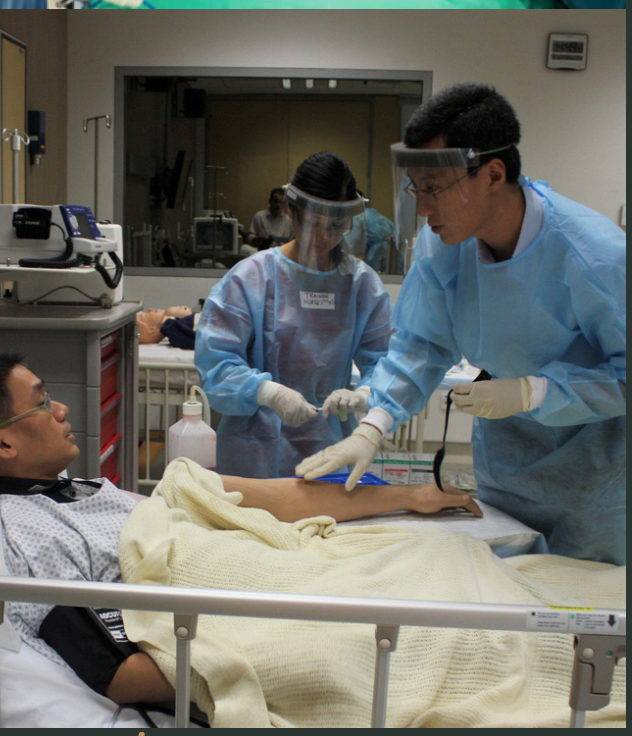
Over the past 13 weeks, the students worked closely with clinicians from various hospitals to identify unmet needs in patient care and medical training. From workflow inefficiencies to gaps in medical education. Associate Professor Yen Ching-Chiuan and his team from AM.NUS (Additive Manufacturing NUS) and CUTE Center guided the students on integrating design principles and ideas into the proposed clinical solutions. Dr Ng Jet Yue Alexander led a team of clinical mentors to provide the clinical need, background and key challenges faced on the ground. The designs of the devices were improved upon throughout the course of the programme and frequent interactive weekly meetings were held with both clinicians and design faculty.

Their efforts culminated in a series of innovative prototypes that were both thoughtfully designed and grounded in clinical practicality. During the showcase, participants had the opportunity to present their projects to key NUHS group level professionals from the Centre for Innovation in Healthcare, NUHS Research Office, NUHS Transformation office and Kent Ridge Office of Innovation. The presentation then transitioned into lively discussions about potential applications and next steps in the individual group's innovation journey.


Several of the most promising projects are now preparing to seek support through upcoming **NHIC grant opportunities**, including the **Joint MedTech (JMT)** scheme. This continued momentum reflects a growing sense of optimism within Singapore's medtech community. As clinicians and designers collaborate more closely, the ecosystem becomes increasingly well-positioned to generate meaningful, homegrown healthcare innovations. A nursing led project on an innovative stoma training solution is also on route to be used by the entire upcoming nursing student cohort.


The event's success also speaks to the enthusiasm of the next generation of healthcare and design professionals. With platforms like Design for Medicine providing mentorship, structure, and real-world relevance, the outlook for locally developed medtech solutions is bright and full of possibility.

WHAT'S NEXT



# Hands-On Simulation: Experience Healthcare in Action

**Tuesday 24 Feb - Thursday 26 Feb 2026**

## FUNDAMENTALS & DEBRIEFING IN SIMULATION-BASED HEALTHCARE EDUCATION

Take your teaching to the next level with this practical, hands-on course designed for healthcare educators who want to enhance learner engagement and outcomes through simulation. Whether you are new to simulation or looking to sharpen your existing skills, this course equips you with the tools, techniques, and confidence to effectively incorporate simulation-based education into your curriculum.

## KEY LEARNING OUTCOMES

- A strong foundation in healthcare simulation principles
- Skills to design and run effective lesson plans and simulation scenarios
- Techniques to assess and improve learner performance
- Practical experience with debriefing models and facilitation strategies
- Insights into common challenges and how to overcome them
- Tools you can immediately apply in your day-to-day teaching and clinical training

## COURSE FEES

$2,550 SGD
(EXCLUDING GST)


**That's a wrap for this issue!**
Catch our next edition for more updates.

Stay connected with CHS for the latest in healthcare simulation and innovation:
https://medicine.nus.edu.sg/chs/