

NUS Medicine CHS Connect

Connecting Minds, Advancing Health Across Asia-Pacific

A MESSAGE FROM THE DIRECTOR

Welcome Note

Hello again.

Welcome to the second issue of our Centre for Healthcare Simulation (CHS) newsletter.

As I was preparing for a hiking trip in March, I am reminded that every journey begins well before the first step on the trail. A good hike requires preparation—studying the route, packing the right gear, and anticipating the unexpected. The path may not always be straightforward, but thoughtful preparation and the people we journey with often make the greatest difference.

There is a saying: “If you want to go fast, go alone. If you want to go far, go together.” This idea resonates strongly with the work we do in healthcare simulation. While individual knowledge and skills are important, meaningful progress in healthcare is rarely achieved alone. Simulation creates a space where teams can come together to practise, learn, and reflect collectively, strengthening not only individual competence but also collaboration and communication. It is also through simulation that we learn the culture of teams and navigate them for better patient outcomes.

As we share the second issue of the CHS newsletter, we continue our journey of learning and sharing with our partners and colleagues. Through this, we aim to foster a community that supports continuous improvement, teamwork, and innovation in healthcare education.

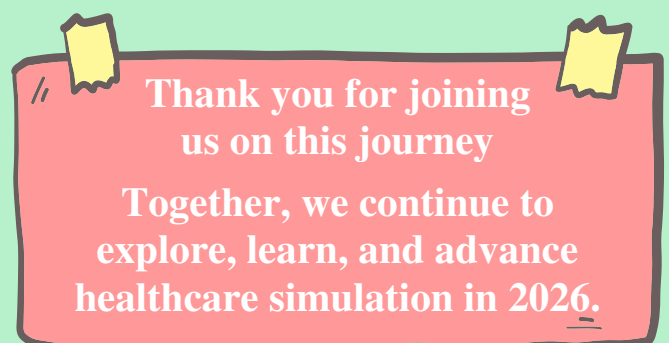
In this issue, we highlight recent events, the NUS open house, upcoming initiatives, and the 2nd AsiaSPEC happening in September this year.

Thank you for being part of this journey with us as we continue to grow, learn, and move forward—together.



Dr Gene Chan

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



Driving Innovation, Education and Engagement in Healthcare Simulation



IN PICTURES

Bridging Borders: Innovating Healthcare with CHS and Singapore Red Cross

Expanding Impact with Technology-Enabled Training Solutions

CHS has started exploring potential partnership with the Singapore Red Cross to help grow global outreach under a “Bridging Healthcare” initiative. The project aims to bring together partners from NUS and National University Hospital to strengthen healthcare training and resource support for overseas hospitals and healthcare organisations. The discussion focused on how CHS and NUS can work with Singapore Red Cross to extend capability building through information sharing, technology-enabled education, including interactive remote training platforms (spatial computing/AR/VR) and accessible, low-cost solutions such as DIY task trainers and 3D-printed training devices.

Led by Dr Ng Jet Yue Alexander (Director, CHS – Developing Technologies & Innovation), the meeting brought together colleagues from CHS, the NUS Division of Industrial Design, NUS CUTE Centre and NUS Additive Manufacturing. The NUS team met up with Mr Benjamin William (Secretary General & CEO, Singapore Red Cross, Ms Charis Chan (Assistant Secretary General, Operations), and Ms Fauzia Amalia (Head of International).



The collaboration aims to enable “interactive learning of shared content at a distance,” supporting remote guided training and education. The team explored methods of building a shared mental model to improve the exchange of information in a scalable, cost-effective way. Potential use cases discussed included needs in life support, ultrasound expertise, airway management skills training, and trauma care. Proof-of-concept use cases demonstrated included the introduction of low-cost, repairable and accessible training tools—such as an interactive, self-directed CPR dummy kit made from everyday household materials and enhanced through smartphone-based, web-app feedback, alongside future improvements that can scale to higher fidelity with 3D-printed and silicone-castable modules for enhanced realism and customisation.



This meeting marks a key foundational step for CHS-DTI in its partnership development with key stakeholders locally and internationally, synergizing outreach efforts and improving healthcare locally and internationally.





Bringing Medicine to Life: CHS at NUS Open House Held on 7 March 2026



An interactive showcase of VR and simulation-based learning for aspiring medical students.

On 7 March, the National University of Singapore (NUS) welcomed prospective students and the general public to its vibrant **Open House** event, showcasing a plethora of academic opportunities across its esteemed faculties. A highlight of the event was the engaging exhibits presented by the Centre for Healthcare Simulation (CHS), Yong Loo Lin School of Medicine, which attracted visitors keen on exploring a future in medical education.

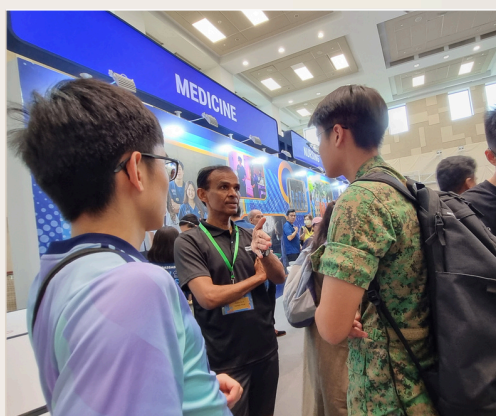


The Medicine's booth was abuzz with activity, featuring an immersive **Virtual Reality (VR) programme** that allowed participants to delve into the world of medical practice. Equipped with wireless headsets, visitors were transported into a virtual clinical environment where they could experience real-world medical scenarios. This cutting-edge VR technology not only demonstrated the **innovative learning tools available to NUS medical students** but also underscored the university's commitment to integrating modern technology into traditional medical education.



In addition to the VR experience, the booth also showcased a simulator task trainer, a sophisticated device used in medical training to enhance procedural skills. Prospective students had the opportunity to interact with the simulator, gaining hands-on experience in a controlled environment that replicates actual medical procedures. This interactive element provided a glimpse into the practical aspects of the MBBS programme.

CHS faculty members, Adjunct Associate Prof Suresh Pillai and Adjunct Associate Prof Nicola Ngiam were present to share invaluable insights into the MBBS programme and its comprehensive curriculum. They engaged with attendees, discussing the various facets of medical education at NUS, from foundational sciences to clinical rotations.



Overall, the NUS Open House event offered a dynamic platform for the Yong Loo Lin School of Medicine to highlight its **innovative educational approaches and engage with the next generation of medical professionals.**



Learning in Action: Fundamentals & Debriefing Course

Building skills, confidence, and teamwork through immersive simulation.

The Centre for Healthcare Simulation (CHS) held its **Fundamentals & Debriefing in Simulation-Based Healthcare Education course** from 24 to 26 February 2026. Now in its 12th intake, 19 participants including doctors and nurses from Singapore hospitals and the Singapore Armed Forces took part in this practical hands-on programme.

The course strengthens **simulation-based teaching and clinical training** by covering simulation principles, scenario design, debriefing techniques and assessment strategies. Learning is reinforced through **group work, real-world scenarios and expert feedback**.

Participants praised the course for its practical impact.



A very comprehensive course that further enhanced my simulation and debriefing skills

Ms Jessica, Nurse Educator,
Alexandra Hospital



A comprehensive simulation and debriefing course incorporating theoretical and practical applications with multiple opportunities for self-learning.

Dr Namisha Goyal,
Alexandra Hospital



This course will make you a better educator, a better clinician and a better person overall!

Dr Eileen,
National University
Health System

Led by **Adjunct Associate Prof Suresh Pillai, senior consultant in Emergency Medicine at NUH**, and supported by CHS's team of simulation technologists, the teaching faculty were highly rated for expertise, clarity, organisation and engagement. Scenario construction, debrief sessions and models such as **GAS** ("**G**ather, **A**nalyse, **S**ummarise") were highlighted as particularly valuable.



The next course is scheduled for the first quarter of 2027. For registration updates visit the [CHS website](#) in November 2026 or email nusmedchs@nus.edu.sg.

INSIDE CHS: PEOPLE BEHIND THE SIMULATION



I am **Johanis Bin Jahidin**, Team Lead for CHS Medical Simulation Technologists. My work brings together healthcare, education and technical innovation to support simulation-based learning.

With a background in nursing and years of experience in healthcare education, I work closely with my team to design and deliver realistic simulation experiences for learners across disciplines.

> FROM NURSING TO SIMULATION TECHNOLOGY

I would view my move from nursing into simulation technology more as a diversification of my interests rather than a complete career switch. Since I was young, I have always been interested in medicine, healthcare and innovation, and simulation technology has allowed me to bring these interests together in a meaningful way.

“ I have always been interested in topics in medicine, healthcare and innovation... being a simulation technologist is a unique way of expressing that ongoing keenness. ”

What I enjoy most is the opportunity to continue learning while recreating varied clinical conditions through simulation and task-trainer sessions. My background as a staff nurse also helps me ensure that what we design remains grounded in clinical realism.

> BRINGING SIMULATION SESSIONS TO LIFE

A typical day at CHS begins with a short briefing session with my team, where we align on plans, challenges and expectations for upcoming sessions. Preparation then follows, involving the set-up of venues, testing of simulators and task trainers, and preparation of consumables.

While much of the work is technical, careful planning is essential to ensure each simulation aligns with the tutor's teaching intent and functions effectively during delivery.

“ The Simulation Technologist is the ‘bridge’ that translates the intent of the tutors’ teaching into the learner’s appreciation. ”

This often requires real-time adjustments during sessions, such as positioning simulators near gas panels or triggering scenario changes at precise moments, including activating an airway obstruction just before intubation.

With multiple sessions across different venues, coordination and adaptability are essential. I also work closely with tutors to refine sessions, and where needed, we adapt equipment or create makeshift solutions using available materials to better support teaching objectives. Moulage remains a key element in enhancing realism and learner immersion.

> BECOMING THE MANIKIN

One of the most fulfilling aspects of my work is seeing the ideas, planning and effort behind a simulation session come together meaningfully. Whether the outcome is positive or negative, it always pushes me to improve and refine what can be done better.

I often describe the role of a simulation technologist through an analogy with *Avatar (2009)*.

“ You have the operator—although in stasis, he is ‘alive’—and the avatar... whose actions are synced with the operator. In this case, the sim tech ‘becomes’ the manikin. ”

For me, simulation goes beyond controlling equipment or changing numbers on a monitor. It becomes an immersive process of shaping the learner’s clinical environment through the manikin itself.

I also enjoy the creative side of simulation design, particularly developing moulage to enhance realism and engagement. As someone who enjoys sci-fi and horror films, this is one aspect of the work that I continue to find especially interesting.

➤ BUILDING A “WELL-OILED MACHINE”

For institutions developing healthcare simulation centres, I believe success depends on both infrastructure and people.

Careful planning of facility layout, equipment selection and alignment with hospital-grade standards are essential. This includes considerations such as simulation spaces, control rooms, debrief areas, storage and technical infrastructure, while ensuring the centre can support both current and future training needs.

“ To keep the centre running like a ‘well-oiled machine’, plan and put together a robust system whereby supply and monitoring of equipment and consumables... can be ensured. ”

Beyond systems and equipment, I believe the people behind the centre are what truly keep it running. Communication, motivation and tolerance are especially important in sustaining effective teamwork in a demanding environment.

➤ THE NEXT FRONTIER OF HEALTHCARE SIMULATION

Over the years, I have seen healthcare simulation evolve significantly, from basic IV arm trainers to high-fidelity manikins, hybrid simulation models and increasingly sophisticated audiovisual systems.

Looking ahead, I expect continued growth in areas such as artificial intelligence, advanced materials and immersive learning technologies. I can envision an AI-monitored feedback system on learners’ skill performance, simulators with lab-grown skin, and more advanced synthetic biological materials.

“ I try to put myself in the position of a learner every day. What keeps me going is new simulation scenarios. ”

For me, maintaining a learner’s mindset is important in continuing to improve how simulation is delivered.

BEYOND THE SIMULATION LAB

Outside of work, I spend time with my wife, daughters and our pair of Holland Lop rabbits. I also enjoy sci-fi and horror films, gaming on the PS4, occasional trips to Australia, and long aimless bus rides with my wife while taking in the surroundings.

These moments outside work help me unwind, reflect and return with a fresh perspective.



Simulating Success: A Global Exchange at NUS Medicine's Centre for Healthcare Simulation



Between March and April 2026, the Centre for Healthcare Simulation (CHS) at the NUS Yong Loo Lin School of Medicine **welcomed a diverse range of visitors, reflecting the growing global interest** in healthcare simulation as a key pillar in the training of future medical and nursing professionals.

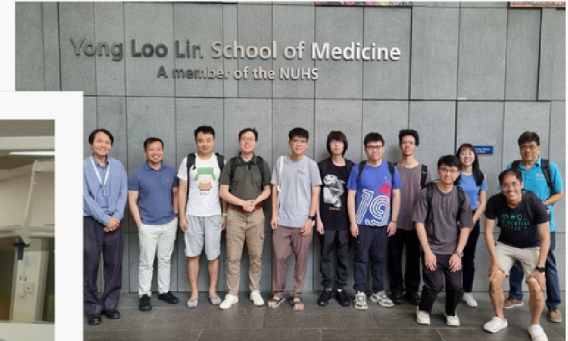
On 8 April 2026, CHS hosted nine postgraduate students from the Simulation and Modelling Technique course at the NUS School of Computing. The visit highlighted the interdisciplinary nature of healthcare simulation, strengthening links between technology and healthcare education. The group, led by **Assoc Prof Gary Tan, Vice Dean (Student Life)**, engaged in insightful discussions on simulation technologies with **Tan Joo Thiam, Technology Lead at CHS**, and **Edwin Lim, Operations and Administrative Manager**.

Earlier, on 31 March 2026, faculty and staff from **Universiti Malaysia Sarawak (UNIMAS)** visited CHS as guests of the Alice Lee Centre for Nursing Studies (ALCNS), NUS Medicine. The visit underscored growing international collaboration opportunities within NUS Medicine. Tan Joo Thiam facilitated a hands-on **virtual reality simulation experience**, offering participants an immersive look into healthcare training innovations.

On 16 March 2026, CHS also welcomed approximately **30 Nursing students** from universities across Japan, Hong Kong, and Vietnam - including **Tokyo Ariake University, Aichi Medical University, Akita University, The Jikei University, The University of Hong Kong, and Eastern International University**, under the Student Exchange Programme organised by ALCNS, NUS Medicine. The group explored CHS's advanced simulation facilities and gained insights into the application of simulation in Nursing education. The visit was hosted by **Eugene Ramos, Team Lead for Nursing Simulation Technologists at CHS**, and Tan Joo Thiam.

Earlier in the month, on 13 March, students from **Eunoia Junior College**, Singapore, participated in a Learning Journey to CHS. Hosted by faculty and students from ALCNS together with Tan Joo Thiam, the visit introduced younger learners to the evolving role of simulation in healthcare education.

NUS School of Computing Visit



Student Exchange Programme



Eunomia Junior College Learning Journey



Collectively, these engagements highlight CHS's growing role as a hub for **educational collaboration, knowledge exchange, and cross-cultural learning** in healthcare simulation.

DESIGN FOR HEALTHCARE & 3D PRINTING COURSE

 15 & 22 August 2026
(2 Saturdays)

 9.00am - 5.00pm

 SDE 1, #05-32 (4 Architecture
Drive, Singapore 117566)

Registration
\$950
per person



<https://forms.office.com/r/iLXd3N1fWJ>

ABSTRACT

This **2-day course** introduces learners to **fundamental design principles and hands-on 3D printing skills** through the lens of **real-world healthcare applications**. Participants will **be introduced to problem-solving fundamentals by identifying unmet clinical or simulation needs and translating them into functional, user-centred design solutions**. Through an iterative design process, learners will gain practical experience with digital design tools and 3D printing technologies. By bridging design thinking with medical education and healthcare challenges, our course aims to introduce participants with the skills and mindset needed to grow impactful, feasible solutions that address clinical, simulation and training needs.



SPEAKERS / INSTRUCTORS



Dr. Alexander Ng

Consultant, Emergency Medicine Department,
National University Hospital

Director, Centre for Healthcare Simulation,
NUS Yong Loo Lin School of Medicine



A/Prof. Yen Ching-Chiuan

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Asian Standardized Patient Educator Collaborative

2nd International Conference

“Building Human Connections in the Digital Age”
 Davao City, Philippines
 September 4-6, 2026

Topics :

- Case Writing
- Role of SP’s in Assessment
- Recruitment and Retention
- Moulage Training
- Virtual Patients
- Hybrid Simulation

VENUE: College of Medicine
 Davao Medical School Foundation Inc.
 Gahol Avenue, Davao City, Philippines
 email: asiaspec@email.dmsf.edu.ph

Use the Link or the QR code to Register

[click this link](https://asiaspec.com) asiaspec



Use QR Code below for Abstract Submission



Abstract Submission closes on
 JUNE 12, 2026

CATEGORY	LOW/MIDDLE INCOME COUNTRIES	OTHER COUNTRIES	HOST COUNTRY (PHILIPPINES)
EARLY BIRD Until JULY 12, 2026	180 USD	300 USD	180 USD
STANDARD RATE	250 USD	450 USD	250 USD
PRE-CONFERENCE WORKSHOP	40 USD	40 USD	40 USD
SP's AND STUDENTS	50 USD	50 USD	50 USD

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/>

