Academic Medicine Innovation Institute
SingHealth Duke-NUS

SingHealth DukeNUS ACADEMIC MEDICAL CENTRE
Alice Lee Innovation Centre of Excellence

TESTBEDDING INSIGHTS:

Advancing SingHealth's Innovation Ecosystem

New Year Greetings

A New Year of Innovation, Transformation, and Impact forward by
A/Prof Goh Su-Yen, Group Director, Division of Innovation and Transformation





A/Prof Goh Su-Yen,
Group Director,
Division of Innovation and Transformation;

“ 2025 reminded us that true innovation is more than technology or process. It is indeed about people and the courage to question norms, the curiosity, to say "why not" and the creativity to envision something better for our patients, our fellow staff, and the communities we care for.

In 2026 we have the opportunity to dream even bigger. To transform not only how we deliver care, but also how we think about "health" itself - rooted in empathy, connection and collaboration.
Every idea you bring, every challenge you help solve, every pain point you tackle: moves us closer to a future where healthcare is smarter, kinder and more equitable.

Thank you for inspiring and effecting change through your passion and purpose.
I wish you and your loved ones a joyful and healthy 2026 .”

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Imagine Tomorrow's Care SKH CAMPUS

A New Chapter in Sengkang General Hospital's Innovation Journey



Sengkang General Hospital (SKH) is delighted to announce the official launch of the Alice Lee Innovation Centre of Excellence (A.L.I.C.E) @ SKH Campus, marking another significant milestone in SingHealth Duke-NUS Academic Medical Centre's mission to transform care through innovation. This dynamic space is designed to empower clinicians, researchers, and partners to co-create solutions that enhance patient and clinical outcomes and operational efficiency.

On 30 October 2025, SKH unveiled its dedicated innovation hub under the inspiring theme "Innovation Takes Flight." The launch was graced by SingHealth Group CEO Professor Ng Wai Hoe, underscoring the importance of innovation in shaping the future of healthcare.



Innovation begins with curiosity and courage. A.L.I.C.E @ SKH Campus strives to empower creative minds to deliver outcomes that can define the healthcare of tomorrow.

Dr Andy Chua
Director, Innovation Office, SKH
Consultant, Department of Otorhinolaryngology - Head & Neck Surgery, SKH

A.L.I.C.E @ SKH Campus Offers

Collaborative Innovation Space
A dedicated environment to showcase success stories, inspire creativity, and foster the generation of new ideas.

Partnership Opportunities
Engage with industry partners and technology providers to co-develop solutions, accelerate adoption, and scale impactful innovations.

Funding & Grants
Support innovators in identifying and securing resources and/or funding opportunities to translate ideas to bedside impact.



Launch Highlights

Interactive Project Showcase
Featured SKH-led projects and collaborations, including:

- Project ViewMind – A Novel Digital Measure of Cognition by A/Prof Laura Tay, Senior Consultant, Department of Geriatric Medicine
- Sensors In-home for Elder Well-being (SINEW) Project by A/Prof Iris Rawtaer, Head and Senior Consultant, Department of Psychiatry as well as Director, Research
- Next-of-Kin Update Tool by Dr Francine Tan, Associate Consultant, Department of Internal Medicine

Patient Journey Innovation Exhibit
Showcased innovative solutions that support patients throughout their typical healthcare journey, from outpatient services through inpatient treatment to community care.

Deepening Healthcare Innovation Partnerships
Over 40 clinicians, healthcare workers and partners came together to explore how technology can advance value-based care, enhance patient experience, and foster future collaborations.

FOR MORE INFORMATION, PLEASE CONTACT SKH INNOVATION OFFICE AT INNOVATION@SKH.COM.SG

Strengthening Partnership Through Clinical Test Bedding at Changi General Hospital

SingHealth DukeNUS ACADEMIC MEDICAL CENTRE

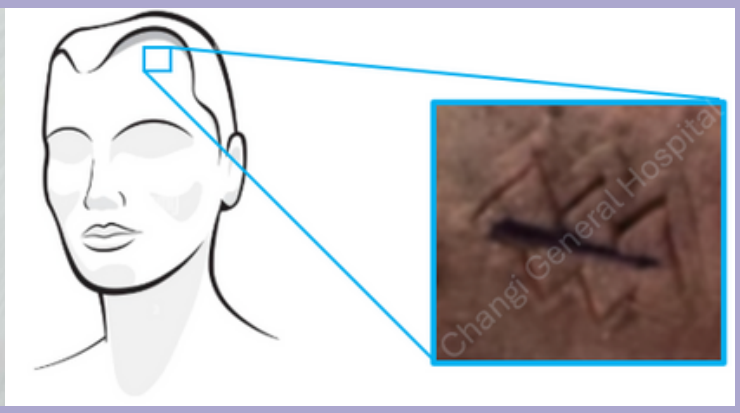
Alice Lee Innovation Centre of Excellence

CGH CAMPUS

At Changi General Hospital (CGH), they recognise that meaningful healthcare innovation requires close collaboration between clinicians and industry partners. CGH plays a key role in enabling test bedding of new innovative solutions in real clinical environments, ensuring technologies are validated with expert input before moving toward wider adoption.



Scar revision device



W-plasty cut on cadaver

CGH supported their industry partner, Dermcut Medical, in conducting a series of cadaveric studies for a new scar revision device.

Dermcut Medical is a Singapore based MedTech company developing advanced scar revision solutions to shorten procedure time while improving patient outcomes.

The technology was developed by CGH and Singapore University of Technology and Design (SUTD) and licensed to Dermcut Medical, underscoring the strong partnership between healthcare, academic and industry collaborator.

Through coordinated support from CGH team and involvement of experienced CGH clinicians, the trials focused on assessing clinical workflow, ease of use and performance consistency across various anatomical regions.

The lastest round of cadaveric study concluded successfully with the device performing reliably across various test cases. Both clinical and usability feedback validated its readiness for the next phase of preparation for pilot build and first-in-man study.

This collaboration and test bedding highlight how Changi General Hospital supports industry partners by providing access to clinical environments, expert guidance, and structured evaluation frameworks that bridges innovative concepts with real world impact.

Changi General Hospital SingHealth

DERMCUT

SUTD SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN

FOR MORE INFORMATION, PLEASE CONTACT CGH OFFICE OF INNOVATION AT INNOVATION@CGH.COM.SG

PARTNERSHIPS IN ACTION: TEST-BEDDING FOR IMPACT

NDR Medical develops image guided robotic system to assist in surgical procedures. Leveraging on AI software and robotics, the products enable clinician in achieving accurate and swift percutaneous access into targeted anatomy for the purpose of surgical access, substance delivery, tumor ablation and biopsy. With regulatory clearance in US and regional countries, the product has been clinically and commercially deployed regionally in Japan, Malaysia, Thailand and Singapore.



NDR Medical, in collaboration with SGH, has been awarded the NHIC I2A grant for the project titled, "Technical Review and Clinical Adoption of Robotic-Assisted Fluoroscopic-Guided Renal Access (ANT-X System) for Percutaneous Nephrolithotomy."



Percutaneous Nephrolithotomy (PCNL) is the most effective procedure for large kidney stones >2cm and it offers several advantages such as its minimally invasive nature, lower risk of bleeding, less pain and fast recovery. However, PCNL is also the most complex procedure for endo-urologists and requires significant amount of experience to visualize renal anatomy in 3D and to gain eventual needle access to the pelvic-calyceal system. The ANT-X robotic system developed by NDR Medical, integrates fluoroscopy images to help clinicians navigate and achieve safe and accurate percutaneous needle placement. ANT-X fully automates its system calibration and needle alignment with fewer x-ray images compare to free-hand and allows clinicians to focus solely on controlling the insertion depth. Single, swift and accurate needle access reduces risk of trauma to the kidney and improves the overall stone-free rate.

Most medical technologies requires multiple iterations before achieving clinical adoption, having a local partner like SingHealth allows any company developing new products to get direct feedback from clinical usage. It is important technology development is aligned with clinical requirements without disrupting workflow and significant increase in cost of adoption. Partnering SingHealth helps us iron out implementation issues from procurement, inspection, commission, sterilisation, storage, training, detailed instruction for use, operating theatre workflow, device handling, reprocessing and preventive maintenance. Running a validation study with SingHealth gives us the confidence to scale and expand commercial adoption globally.



> **Running a validation study with SingHealth gives us the confidence to scale and expand commercial adoption globally.**
>
> **Mr Alan Goh,**
> CEO, NDR Medical Technology

National Neuroscience Institute
SingHealth

NEUROWYZR



From left:
Ms Soo See Ann (NW*), Ms Charlyn Soh (NNI), Prof Ng Kok Pin (NNI), Ms Pang Sze Yunn (NW*), Mr Alan Khor (NW*) & Joyce Wan (NW*).

*: NEUROWYZR

Neurowyzr is a Deep Neuroscience company using the latest discoveries in neuroscience to optimise population brain health. With a digital neuroscience platform, their goal is to improve quality of life by slowing down brain decline through early detection, therapy and monitoring.

Their solutions include a first-of-its-kind, a 15-min digital medical assessment to screen and monitor for early brain decline, the Digital Brain Function Screen (DBFS). Powered by advanced analytics and AI, Neurowyzr tool changes the healthcare industry by enabling early detection and care for brain decline. Early detection and care will slow down the progression of serious brain health conditions.

Neurowyzr is currently collaborating with SingHealth institutions in two funded grants:

- **Development of a Digital Multidomain Cognitive, Behavioural, and Mental Wellness Assessment for Mild Cognitive Impairment (MCI):**

This project focuses on co-developing an advanced digital assessment tool that integrates cognitive, behavioural, and mental wellness domains for early detection of MCI. The work includes clinical validation, domain calibration, and the creation of a scalable digital platform for use in clinical and community settings.

- **Usability Testing and Workflow Integration of the Digital Brain Function Screen (DBFS) for Stroke Patients:**

This grant supports the evaluation of DBFS within stroke care pathways, focusing on usability testing, clinician workflow fit, and integration into post-stroke follow-up. The study involves collaboration with stroke clinicians to assess real-world applicability, patient experience, and early detection of post-stroke cognitive impairment.

These projects reflect strong collaboration between Neurowyzr and SingHealth, as well as our shared commitment to advancing digital cognitive health solutions for clinical and community care.

> **Partnering with SingHealth in our validation studies has significantly strengthened Neurowyzr's credibility and market trust. As an esteemed and widely recognised healthcare institution, SingHealth's involvement provides strong clinical endorsement for our products. This partnership has helped us build confidence among potential clients and partners, demonstrating that our solutions have been rigorously evaluated within a leading healthcare ecosystem. It has also enhanced our ability to engage stakeholders, accelerate adoption, and position our tools as clinically robust and evidence-based.**
>
> **Ms Pang Sze Yunn**
> Chief Executive Officer
> NEUROWYZR

How do Neurowyzr collaborate with the healthcare ecosystem when adopting new technology/ solutions?

Neurowyzr approach to collaborating with the healthcare ecosystem begins with a deep understanding of existing clinical workflows, stakeholder needs, and system-level gaps. Working closely with clinicians, administrators, and patients to identify pain points, such as workflow inefficiencies, assessment bottlenecks, or unmet monitoring needs, ensure that Neurowyzr solutions address these challenges meaningfully.

A key principle in the collaboration is minimising disruption. Neurowyzr design it's digital tools to fit seamlessly into current clinical workflows, rather than requiring significant operational changes. By integrating smoothly into existing processes, they help healthcare teams improve efficiency, reduce manpower burden, and enable more timely diagnosis, monitoring, and intervention.

Through iterative co-design, usability testing, and ongoing feedback loops with healthcare partners, Neurowyzr ensure that new technologies are clinically practical, user-friendly, and aligned with real-world needs across the healthcare ecosystem.

SingHealth | Office for Innovation

Supporting Innovators through AMII Funded Programme, Test-bedding and Adoption Grant

Automated EEG Interpretation Software and Integrated Analysis Platform

Singapore General Hospital SingHealth | National Neuroscience Institute SingHealth



From Left to Right: Dr Tan Zhibin (NNI@ SGH), Dr Shen Jia Yi (NNI@TTSH), Dr Tan Yee Leng (NNI@TTSH), Dr Tushar Gosavi (NNI@ SGH)



(From Left to Right: Neurotechnologists Ms Fatin Hanani (NNI@TTSH), Ms Linda Yong (NNI@TTSH), Ms Adeline Teo Baoxin (NNI@ SGH), Ms Chang Chao Li (NNI@TTSH),

Supporting Innovation Through Strategic Partnership: How AMII Funding Enabled a Breakthrough in Seizure Detection



Patients frequently develop seizures in the neurological intensive care unit (ICU) due to the high prevalence of acute structural brain injuries. Continuous electroencephalogram (EEG) is a valuable tool used to screen for "clinically silent" electrographic seizures - aberrant electrical activity that disrupts brain function and requires timely treatment for better patient outcomes.

Yet the current process of analysing these prolonged recordings is laborious and time-consuming, requiring experienced neurotechnologists or neurologists to manually review hours of data. Existing commercial seizure detection tools have fallen short of meeting clinical needs in the hospitals due to the low detection sensitivity.

Recognising this critical gap, the National Neuroscience Institute (NNI) team, in partnership with Mindsigns Health™, sought to transform seizure detection through artificial intelligence. With support from the Academic Medicine Innovation Institute (AMII) Test-bedding and Adoption Grant (TAG), the team was able to further validate this NeuroBrowser™ —an automated, cloud-based AI-enabled seizure detection software— previously co-developed between NNI and Mindsigns Health™, on prolonged EEG acquisitions at NNI @ Tan Tock Seng Hospital (TTSH) and Singapore General Hospital (SGH).

Navigating Challenges with Strategic Support

The journey wasn't without its challenges. Working with Mindsigns Health™ brought the agility and innovation typical of startup partnerships but also required careful navigation of risks such as financial uncertainty and dependence on key individuals. The team's success stemmed from early alignment on goals, maintaining agility throughout development, and ensuring continuous post-project innovation to keep the solution clinically relevant.

The software has already obtained ISO 13485 certification, and a licensing agreement with Mindsigns Health™ is underway. Looking ahead, the successful deployment of NeuroBrowser™ could fundamentally transform neurological care across Singapore's healthcare system and beyond. Following further technical refinement and acquisition of necessary regulatory approvals for clinical deployment, the solution would be positioned for broader adoption across public hospitals, potentially reducing the burden on specialist neurologists, whilst improving patient outcomes through early seizure detection and timely treatment.

A Remarkable Achievement



The results speak to the team's innovation and rigorous development approach. NeuroBrowser™ demonstrated superior seizure detection sensitivity compared with commercially available software. Modelling studies are underway, and if cost-effectiveness of software adoption into clinical workflows is demonstrated, this will position NeuroBrowser™ as a game-changing screening tool for rapid detection of potential seizures in the ICU environment, directly impacting the patient care delivery.



Our sincere thanks to Dr Tan Yee Leng and her team for generously sharing their journeys and insights for this project. It is a strong example of how our funding programmes, in this instance, the Academic Medicine Innovation Institute (AMII) Test-bedding and Adoption Grant (TAG) has supported the teams to transform their ideas into tangible results.

– From SingHealth Office of Innovation

Exploring an early-stage concept or ready to validate?
Connect with SHOFI to learn about funding opportunities and contribute to transforming healthcare delivery at innovate@singhealth.com.sg

CONNECTING MINDS, ADVANCING CARE

Explore emerging healthcare technologies and collaborative opportunities that are shaping better outcomes for patients and providers alike.

Partners of A.L.I.C.E @ SGH Campus

Discover more of our exchanges and stories on LinkedIn—scan the QR code or click the link to keep up with A.L.I.C.E @ SGH Campus events.