

MEDIA RELEASE

19 November 2021

NATIONAL UNIVERSITY HOSPITAL ANNOUNCES COLLABORATION WITH JOHNSON & JOHNSON TO LAUNCH SINGAPORE'S FIRST 3D PRINTING POINT-OF-CARE IN HOSPITAL

*Dedicated expertise within the hospital accelerates 3D printing adoption in healthcare
and advances personalised patient care capability in Singapore*

SINGAPORE — The National University Hospital (NUH) today launched a 3D Printing Point-of-Care collaboration within Johnson & Johnson (J&J) to improve patient care capability and enhance personalised healthcare. This initiative is supported by the Singapore Economic Development Board (EDB) to accelerate healthcare innovation in Singapore.

Elevating patient care through personalisation

The collaboration between NUH and J&J Singapore aims to push the boundaries of surgical 3D printing in Singapore, elevate the standard of care for patients and deliver better patient outcomes.

The 3D Printing (3DP) Point of Care Lab is managed by J&J Singapore within the premises of NUH, making it the first of its kind in Singapore. In this Point-of-Care model, J&J's biomedical engineers will work closely with NUH clinicians to design and produce personalised anatomical models for preoperative planning and surgical simulation.

Surgery can often cause stress to patients and their families. With patient-specific anatomical models, surgeons can use them as visual tools to educate patients and their families and prepare them for their procedures. This helps reassure patients and reduce stress and anxiety ahead of the surgery.

“Johnson & Johnson has been pioneering innovative and personalised healthcare solutions that improve patients' lives. With growing patient demands for more personalised care, it is our great honour to collaborate with National University Hospital to launch the first dedicated 3DP Point-of-Care collaboration in Singapore. The collaboration is also the first in Asia for Johnson & Johnson to provide technological solutions for clinical care within a hospital. Together with NUH and our strategic partners in the healthcare ecosystem, we are excited to accelerate the adoption of personalised 3D printing innovation and develop new solutions to address hospital and patient needs in Singapore,” said **Mr Guillermo Frydman, Managing Director, Johnson & Johnson Singapore**¹.

¹ Official legal entity name is Johnson & Johnson Pte. Ltd.

Enhancing preoperative planning

Preoperative planning plays a critical role in the success of surgeries. With the 3DP Point of Care collaboration, surgeons and clinicians will gain access to Johnson & Johnson's expertise in 3D Printing development for their preoperative planning.

The presence of a dedicated lab within the hospital is pivotal in allowing clinicians to easily discuss cases with the biomedical engineers and fine-tuning their surgical plans using 3D printed models.

Using anatomical models specific to the patient, surgeons can now explore optimal surgical procedures via surgical simulations to pre-empt possible complications before conducting the actual surgery. This can also enable the surgery to be completed in a shorter time.

The lab can currently produce patient-specific anatomical models such as hips and knee joints, with plans to produce other medical devices and instruments such as surgical guides for complex surgery in the near future. Primed for the digital age, the lab will also explore mixed reality (MR) technology to support the development of next-generation clinical applications and better improve patient safety in surgery.

Professor James Hui, Head and Senior Consultant, Department of Orthopaedic Surgery, NUH said, "We are pleased to collaborate with Johnson & Johnson and we look forward to explore many more industry collaborations to push the boundaries for 3D printing in surgery and healthcare innovation. As a leading academic healthcare institution that greatly values and excels in research in innovation, NUH will tap on the 3D Printing Point of Care Lab to improve our clinical outcomes with personalised anatomical models and pioneer the development of new surgical techniques to deliver incredible care to our patients. The facility will also enhance our training and education of new surgeons and clinicians."

Chinese Glossary

National University Hospital (NUH)	新加坡国立大学医院 (国大医院)
Johnson & Johnson Singapore	强生新加坡
3D Printing Point of Care Lab	3D打印即时医疗室
Professor James Hui Head and Senior Consultant, Department of Orthopaedic Surgery, NUH	许海波教授 骨科外科部门主任 国立大学医院 (国大医院)
Mr Guillermo Frydman Managing Director, Johnson & Johnson Singapore	吉利默·费门 强生新加坡董事总经理

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About the National University Hospital

The National University Hospital is a tertiary hospital and major referral centre with over 50 medical, surgical and dental specialties, offering a comprehensive suite of specialist care for adults, women and children. It is the only public hospital in Singapore to offer a paediatric kidney and liver transplant programme, in addition to kidney, liver and pancreas transplantation for adults.

The hospital was opened on 24 June 1985 as Singapore's first restructured hospital. Each year, the Hospital attends to more than one million patients.

As an academic health institution, patient safety and good clinical outcomes are the focus of the Hospital. It plays a key role in the training of doctors, nurses, allied health and other healthcare professionals. Translational research is pivotal in the Hospital's three-pronged focus, and paves the way for new cures and treatment.

A member of the National University Health System, it is the principal teaching hospital of the NUS Yong Loo Lin School of Medicine and the NUS Faculty of Dentistry.