NEWS RELEASE

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‘SAFE HANDS’ TO PREVENT HOSPITAL ACQUIRED INFECTIONS

A*STAR-CIMIT Commercialization Project Aims To Tackle Hospital Acquired Infection – A Major Global Healthcare Problem That Affects Millions of People Worldwide

1. The Agency for Science, Technology and Research (A*STAR) announced today that it will help develop and validate Project Safe Hands in the National University Hospital and Changi General Hospital next year to address hospital-acquired infections (HAIs). These infections, which include pneumonia and sepsis infection, can lead to death in more severe cases. The HAIs are a major global healthcare problem affecting millions of people around the world. According to the 2nd World HAI Forum in 2009, there are about 7 million cases of HAIs in the United States and Europe each year. The HAIs are most prevalent in the Eastern Mediterranean and South-east Asian regions.

2. Project Safe Hands, spawned from the collaboration between A*STAR and CIMIT (Center for Integration of Medicine and Innovative Technology) in Boston, USA, is premised on the fact that hand hygiene is the single most important and effective measure to prevent the spread of HAIs. The Safe Hands technology demarcates a ‘safe’ zone around patients. It alerts healthcare workers via their ID Badge Module to wash their hands every time they enter or leave the safe zone. Should they fail to do so, their ID badge will beep subtly as a reminder and the act of non-compliance will be wirelessly recorded. To date, Safe Hands is protected by three pending US Utility Patents and is being trialed at select sites internationally. The CIMIT-A*STAR collaboration is enabling a start-up company, HanGenix, to bring the technology to the market, starting in Singapore.

3. Said Mr. Lim Chuan Poh, Chairman of A*STAR, “By collaborating on the development and test-bedding of the Safe Hands technology developed by CIMIT in Changi General Hospital and National University Hospital, we are accelerating the development of the technology and its implementation in

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1 According to the Center for Disease Control and Prevention in the United States, there are 1.7 million infections resulting in approximately 99,000 deaths annually in the United States, making HAIs the fourth leading cause of death.
Singapore. This is a good example of how biomedical scientists, clinicians and engineers in Singapore can work with their counterparts in Boston to refine the engineering solutions that have clinical and market relevance for Singapore and Asia. The Safe Hands technology will not only enable us to meet the clinical needs of the local population but it will also facilitate the commercialisation of this technology for Singapore and the Asian market. The collaboration is expected to result in intellectual property jointly owned by A*STAR, the universities and CIMIT.”

4. Said Associate Professor Aymeric Lim, Chairman of the Medical Board, National University Hospital, “We are very excited about the collaboration to test-bed the technology. Smarter and automated compliance auditing is the way of the future and is likely to become standard over the next decade.”

5. Added Associate Professor Low Cheng Ooi, Chairman of the Medical Board of Changi General Hospital, “Infection control is one of our key patient safety goals. Proper practice of hand hygiene will reduce the spread of germs. Therefore we are very glad to collaborate with A*STAR in Project Safe Hands to use technology to enhance our hand hygiene practice in the ward.”

**A*STAR-CIMIT Collaboration**

6. Under the A*STAR-CIMIT collaboration, engineers, clinicians and/or BMS scientists in Singapore will be able to work with clinicians and researchers in Boston to come up with engineering solutions to improve patient care and promote cost-efficiency in the healthcare system. This collaboration will not only create greater opportunities for impactful innovations in the area of medical technology but more pertinently, it will also provide an environment conducive to training innovators for the growing medical technology industry in Singapore.

7. Specifically, the A*STAR-CIMIT collaboration enables A*STAR to:
   a. adopt CIMIT best practices in multidisciplinary translational research in medical devices and clinical technology system applications;
   b. accelerate the technology implementation process for clinically-vetted, CIMIT-supported “projects in the pipeline” by leveraging Singapore-based resources; and
   c. initiate joint grant calls to encourage the formation of cross-continent collaborations of clinicians and engineers and to enhance capabilities, expertise and IP in MedTech innovations.

8. Said Prof Low Teck Seng, Managing Director of A*STAR, “The A*STAR-CIMIT collaboration enables A*STAR to collaborate on select technologies in CIMIT’s pipeline that use the expertise we have here in Singapore and which can be adapted to address the specific needs of the clinical community here and in the region. It is a win-win partnership with CIMIT funding projects to the "Proof-of-
Concept" stage and A*STAR helping to accelerate the technology into clinical impact and commercial success in Singapore and Asian markets. Working with CIMIT, we will be able to foster the MedTech ecosystem here in Singapore and contribute to the growing MedTech industry here."

9. Added Dr John Collins, Chief Operating Officer, CIMIT, "We have high expectations for the A*STAR-CIMIT collaboration and believe it will help advance more efficient healthcare delivery across the globe. In particular, we are excited about connecting Boston's premier medical and research community and its robust entrepreneurial culture to Singapore's MedTech sector in a way that benefits people in the region."

10. A*STAR-CIMIT collaboration is one of the programmes under the A*STAR Medical Technology Initiatives. The other programmes include the Singapore-Stanford Biodesign programme to nurture next-generation leaders in medical device innovation and the Biomedical Engineering Programme that provides grants for research projects helmed collaboratively by research engineers at A*STAR and clinicians which will develop and provide cost-effective, innovative and clinically impactful solutions for healthcare systems.

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About the Agency for Science, Technology and Research (A*STAR)

A*STAR is the lead agency for fostering world-class scientific research and talent for a vibrant knowledge-based and innovation-driven Singapore. A*STAR oversees 14 biomedical sciences, and physical sciences and engineering research institutes, and nine consortia & centres, which are located in Biopolis and Fusionopolis, as well as their immediate vicinity.

A*STAR supports Singapore’s key economic clusters by providing intellectual, human and industrial capital to its partners in industry. It also supports extramural research in the universities, hospitals, research centres, and with other local and international partners.

For more information on A*STAR, please visit www.a-star.edu.sg.

About Changi General Hospital

Changi General Hospital (CGH) is a 790-bed hospital in eastern Singapore, only 10 minutes from Changi International Airport. CGH is a member of SingHealth, the eastern public healthcare cluster comprising 3 Hospitals, 5 National Speciality Centres and a network of primary healthcare clinics.

CGH is the first hospital in the SingHealth cluster to receive the prestigious international JCI accreditation on 11 June 2005. This accreditation recognises the hospital's performance in complying with international health care quality standards from the American-based Joint Commission on Accreditation of Healthcare Organizations (JCAHO). CGH underwent the triennial JCI re-accreditation, and were successfully re-accredited on 25 April 2008.

In 2007, we are also the first hospital in Singapore to receive JCI Disease-Specific Care Certification for our Heart Failure Programme and Acute Myocardial Infarction Programme.

CGH offers a comprehensive range of medical and paramedical services. These include emergency medicine, anaesthesia, breast surgery, cardiology, dermatology, endocrinology, otolaryngology (ENT), ophthalmology (eye), gastroenterology, general medicine, general surgery, geriatric medicine, laboratory medicine, multiphasic health screening, neurology, neurosurgery, outpatient O&G services, oral & maxillofacial surgery, orthopaedic surgery, psychological medicine, radiology, rehabilitation medicine, respiratory medicine, sports medicine / sports orthopaedics, and urology.

About the National University Hospital

The NUH is a tertiary specialist hospital and major referral centre for a wide range of medical and dental specialties including Cardiology, Gastroenterology and Hepatology, Obstetrics and Gynaecology, Oncology, Ophthalmology, Paediatrics and Orthopaedic Surgery. A member of the National University Health System, it is the principal teaching hospital of the NUS Yong Loo Lin School of Medicine (YLL SoM).
With combined resources from the NUS YLL SoM and Faculty of Dentistry, the NUH is poised to meet the healthcare needs of patients, train future generations of doctors more effectively, and help develop solutions to healthcare problems through research.

Backed by substantive expertise and experience, the NUH was chosen by the Ministry of Health in 2007 to develop two new national specialist centres, the National University Heart Centre, Singapore and the National University Cancer Institute, Singapore to meet the growing needs for cardiac and cancer treatments.

In 2004, the NUH became the first Singapore hospital to receive the Joint Commission International (JCI) accreditation, an international stamp for excellent clinical practices in patient care and safety.