

Education, Research & Innovation News from the Swiss House Singapore, June 2006

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LATEST EDITION OF SWISS HOUSE SINGAPORE E-NEWSLETTER

Swiss House Singapore has released its fourth edition of e-newsletter in June 2006. We invite to you to read and subscribe:

<http://www.swisshouse.org.sg/e-newsletter4.cfm>

FIRST SINGAPOREAN STUDENT TO WIN A PRIZE AT THE PRESTIGIOUS ST. GALLEN WINGS OF EXCELLENCE AWARD 2006

CHEN Yeshan, student at the National University of Singapore (NUS) is the first Singaporean to win a prize at the prestigious St. Gallen Wings of Excellence Award 2006, the famous Student Essay Competition of the St. Gallen International Students' Committee (ISC) Symposium. The 36th St. Gallen ISC Symposium was held in St. Gallen, Switzerland in May 2006 and was attended by some 600 decision-makers from the fields of business, politics and science. Chen Yeshan won the Second Prize of this year's essay contest. He was also the youngest of the four winners, the only undergraduate student (Life Sciences) and the first Singaporean student to be given the opportunity to make a presentation on the topic "Creating an Inspired European Identity – A Three Step Approach" as the only Asian to partake on the panel.

http://www.stgallen-symposium.org/student_award/36_winners_2006.htm

INAUGURAL MEETING OF HIGH-LEVEL RESEARCH COUNCIL TO DISCUSS R&D PROPOSALS

The Research, Innovation and Enterprise Council (RIEC) meeting to be chaired by Prime Minister Mr. Lee Hsien Loong will convene its inaugural meeting in Singapore, from 4 to 7 July 2006. The council will discuss Research & Development (R&D) proposals for the three key strategic areas identified by the National Research Foundation (NRF) – Biomedical Sciences, Environmental and Water Technologies, and Interactive and Digital Media. The council will also deliberate on an initiative to establish world class international research centres in Singapore, aimed at creating a pool of top scientists to drive R&D and innovation to create new growth engines for Singapore. To help Singapore deepen its R&D capabilities to a level comparable to that of countries such as Switzerland, Finland and Sweden, the RIEC will tap on the extensive experience and expertise of its eminent members in both public and private sectors, higher education, business and industry.

<http://app.sprinter.gov.sg/data/pr/20060629992.pdf>

GOOD LABORATORY PRACTICE (GLP) PROGRAMME – NEW LAB SCHEME TO BOOST BIOMED SECTOR

Singapore's multi-billion-dollar biomedical industry will be strengthened this October with the launch of a new laboratory scheme. The introduction of the Good Laboratory Practice (GLP) Programme is regulated by the Organisation for Economic Cooperation and Development (OECD). The system includes guidelines on how tests are performed, monitored and recorded. Its implementation will mean that data from pre-clinical and non-clinical research – drug or chemical testing that does not involve humans – carried out here will be accepted by OECD nations. By

adopting this 'international benchmark', Singapore will be able to plug a gap in its biomedical industry by further strengthening its research capabilities. The GLP programme should help boost Singapore's biomedical sciences industry from S\$18 billion last year to a projected S\$25 billion by 2015.

<http://app.sprinter.gov.sg/data/pr/20060620996.htm>

NANOBIOMECHANICS AT NUS: AN EMERGING TECHNOLOGY

Nanobiomechanics is an emerging technology, according to Technology Review published by the Massachusetts Institute of Technology (MIT) which every year, identifies 10 technologies that would soon have significant impact on our lives. As a vote of confidence for the National University of Singapore (NUS), work by the university in Nanobiomechanics has been cited alongside those by universities such as MIT and Harvard. In Nanobiomechanics, scientists are able to gain new understanding of diseases through measuring the tiny forces acting on cells. The news comes in the wake of the establishment of the Global Enterprise for Micro-Mechanics and Molecular Medicine (GEM4) of which NUS is a founding member. Researchers of GEM4 use tools like atomic force microscopes, laser tweezers, and microplate stretchers to study changes in human cells in infectious diseases like malaria and sickle cell anaemia, cancers of the liver and pancreas, as well as cardiovascular diseases.

<http://newshub.nus.edu.sg/ke/0510/articles/pg04.htm> <http://www.gem4.org>

<http://www.technologyreview.com/special/emerging/index.aspx>

ST ELECTRONICS AND NTU LAUNCH JOINT PHD RESEARCH PROGRAMME

Singapore Technologies Electronics Limited (ST Electronics) through its wholly-owned subsidiary, ST Electronics (Training & Simulation Systems) Pte Ltd (STEE-T&S), will launch a new PhD research programme on simulation model validation with the Nanyang Technological University (NTU) in August this year. This is the first time STEE-T&S is collaborating with NTU on a PhD programme. The PhD research programme aims to develop a generic validation framework, which can be used to conduct model validation in the absence of complete test data. This can then be applied in various industries such as aviation, defence and transportation. PhD candidates for the programme will commence their thesis at the School of Civil & Environmental Engineering in August 2006. ST Electronics will provide a comprehensive customised testing ground, which includes simulators, simulation systems and software, for the PhD students while NTU will offer their expertise in the area of assessing the accuracy of the simulators developed.

http://www.ntu.edu.sg/corpcoms2/releases/26%20Jun%2006%20News%20Release_CEE-STEE%20MOU.pdf

NTU COLLABORATES WITH MAYO CLINIC IN BIOMEDICAL RESEARCH

A Memorandum of Understanding (MoU) was signed on 15 May 2006 between Nanyang Technological University (NTU) and Mayo Clinic in the USA to mark their collaboration in the field of biomedical research. The two institutions aim to derive joint patents and go into product commercialisation and industrial start-ups. In a good start, NTU's School of Materials Science and Engineering and Mayo Clinic's College of Medicine are already working on a project to develop nanoparticles to transport drugs or genes to cancer sites in the body. Such a project has significant relevance in the global search for new and effective cancer therapy methods.

[http://www.ntu.edu.sg/corpcoms2/releases/2%20Jun%2006%20MSE-Mayo%20clinic%20collaboration%20\(news%20release\).pdf](http://www.ntu.edu.sg/corpcoms2/releases/2%20Jun%2006%20MSE-Mayo%20clinic%20collaboration%20(news%20release).pdf)

SINGAPORE & FINLAND TO DEEPEN SCIENCE & TECHNOLOGY PARTNERSHIP

Tekes, the Finnish Funding Agency for Technology and Innovation, the main public funding organisation for research and development in Finland, signed a Memorandum of Understanding (MoU) with Singapore's Agency for Science, Technology and Research (A*STAR) to formalize both parties' commitment and intent to promote R&D and scientific collaboration in strategic technology areas between Singapore and Finland. The MoU sets the framework for all collaborations between A*STAR and Tekes over the next three years through ambitious joint projects on infocomms & media technologies related to healthcare. An outgrowth of this MoU is the joint eHealth seminar to be held at the VTT Technical Research Center of Finland, Helsinki. Co-organised by the Finnish contract research organization, VTT and A*STAR, the eHealth seminar will provide an ideal platform for Singaporean researchers and scientists to network with their Finnish counterparts, to discuss in detail, the projects for collaboration in the area of infocomm and media technologies in healthcare.

http://www.a-star.edu.sg/astar/attach/press_release/Tekes_Singapore_and_Finland_Cement_Bilateral_Ties_through_Science_and_Technology.pdf

http://www.a-star.edu.sg/astar/attach/press_release/ehealth_press_release.pdf

A*STAR AND THE AUSTRALIAN NATIONAL UNIVERSITY ESTABLISH IMMUNOLOGY RESEARCH COLLABORATION

The Centre for Molecular Medicine (CMM) at the Singapore's Agency for Science, Technology & Research (A*STAR) and the Australian Phenomics Facility (ANU APF) at the Australian National University have established an

immunology research partnership focusing on autoimmune diseases, including Type 1 Diabetes. A Research Collaboration Agreement (RCA) was signed on 14 June 2006 in the presence of Prime Minister of Singapore Mr. Lee Hsien Loong, who was on an official visit to Australia. The partnership in leading edge biomedical research represents a new milestone in the bilateral relationship Singapore shares with Australia. It will yield new knowledge and understanding in immunology and pave the way for other research collaborations between the two countries.

http://www.a-star.edu.sg/astar/attach/press_release/ASTAR_ANU_Collab_1.pdf

A*STAR TARGETS THE SILICON PHOTONICS INDUSTRY THROUGH EXPLOIT TECHNOLOGIES' FLAGSHIP PROGRAMME

Singapore's Agency for Science, Technology and Research (A*STAR) aims to harness its silicon photonics capabilities to jump-start a silicon photonics industry in Singapore through joint research and development, production and manufacture with local and overseas partners. On 26 Jun 2006, A*STAR's Institute of Microelectronics (IME) and US-based technology company SiOptical, Inc signed a Research Collaboration Agreement to jointly develop fabrication technology for silicon-based photonics and circuits, such as silicon waveguide, optical modulators, detectors and the associated fiber alignment structures. In addition, a three-party Memorandum of Understanding was signed among IME, SiOptical and Chartered Semiconductor Manufacturing Ltd (Chartered), one of the world's top dedicated semiconductor foundries, in support of the manufacture of the silicon photonics technology and optoelectronics devices jointly developed by IME and SiOptical. IME's tie-up with SiOptical and Chartered marks the first industry move in Singapore to harness silicon photonics technologies and a major milestone in Exploit Technologies' Flagship Program on silicon photonics.

http://www.a-star.edu.sg/astar/attach/press_release/IME-SiOptical_news_release_FINAL.pdf

SYMMATRIX AND A*STAR'S DATA STORAGE INSTITUTE TO LAUNCH A NETWORK STORAGE PRODUCT BASED ON iSCSI TECHNOLOGY

Symatrix Pte Ltd (SYMMATRIX) and Singapore's Agency for Science, Technology and Research's (A*STAR) Data Storage Institute (DSI) announced on 19 June 2006 its collaboration to launch a new product based on DSI's Internet SCSI (iSCSI) Target Software Module. Exploit Technologies Pte Ltd (ETPL) facilitated the technology transfer between SYMMATRIX and DSI through a license agreement, granting commercialization rights to market the iSCSI Network Storage products. The new product will be market ready and available for customer testing in three months' time. DSI's iSCSI Target Software Module is able to interface with the third party iSCSI Initiators and provides access to the standard storage stack such as the SCSI block device. An iSCSI Target module is required to establish itself as a storage server in order to accept connections from remote iSCSI Initiators.

http://www.a-star.edu.sg/astar/attach/press_release/DSI_Symatrix_Collaboration_6.pdf

A*STAR AND HP LABS ESTABLISH SHARED SERVICES PLATFORM LAB IN SINGAPORE

The Agency for Science, Technology and Research (A*STAR) and HP Labs have signed a three-year research agreement to establish the HP Shared Services Platform Laboratory (HP SSP Lab) in Singapore. This research collaboration reinforces Singapore's attraction as a global research and info-communications hub and is expected to help put Singapore on the world map in frontier research work on next-generation data centre and grid-related technologies. The joint R&D laboratory will initially be located at A*STAR's Institute of High Performance Computing (IHPC). IHPC and the laboratory will be relocated to Fusionopolis when Phase 1 of Fusionopolis opens in late 2007. Fusionopolis is an info-communications and digital media hub where companies, corporate labs and A*STAR's research institutes will co-locate, sharing state-of-the-art facilities and test-bedding infrastructure.

http://www.a-star.edu.sg/astar/attach/press_release/ASTAR_release_final.pdf

GLAXOSMITHKLINE STRENGTHENS ASIAN PRESENCE WITH NEW S\$300M VACCINE PLANT

GlaxoSmithKline (GSK), one of the world's leading vaccine manufacturers, strengthens its presence in Asia with the establishment of its first vaccine manufacturing plant in Singapore set to be operational in 2010. The new vaccine plant is GSK's biggest vaccine investment in Asia and will be the first such facility in Singapore. The company will spend more than S\$300 million over the next four years, in the first phase of development of the plant dedicated to the primary production of paediatric vaccines. Building work, which has already started, will be phased over a number of years with a view to ensuring maximum manufacturing flexibility. More than 200 jobs will be created to support this facility.

http://www.biomed-singapore.com/bms/sg/en_uk/index/newsroom/pressrelease/year_2006/8_jun_-_glaxosmithkline.html

<http://app.sprinter.gov.sg/data/pr/20060608999.htm>

PHILIPS INAUGURATES ASIA PACIFIC'S FIRST MEDICAL LEARNING CENTRE

Philips Medical Systems (Philips), a division of Royal Philips Electronics, inaugurated Asia Pacific's first Learning Centre for advanced medical diagnostics equipment training in Singapore on 6 June 2006. The Singapore Learning Centre is designed around the needs of healthcare professionals and customers and will offer service engineers, sales engineers and application persons in depth knowledge of cutting edge medical technology. The Centre will also provide medical communities across the region access to the most advanced medical diagnostics equipment and their operation, thus accelerating the delivery of quality healthcare. The state-of-the-art 12 Million Euros facility for advanced medical diagnostics equipment training is first of its kind in the region. This 37,000 sq ft centre is equipped with the most sophisticated medical diagnostics equipment, including cardio vascular X-ray, general X-ray, computer tomography (CT) scanner, Magnetic Resonance Imaging (MRI), Ultrasound systems and Patient Monitoring.

http://www.biomed-singapore.com/bms/sg/en_uk/index/newsroom/pressrelease/year_2006/6_jun_-_philips_inaugurates.html

CALL FOR PAPERS: 6th INTERNATIONAL TRIPLE HELIX CONFERENCE ON UNIVERSITY-GOVERNMENT-INDUSTRY LINKS

Organised by National University of Singapore (NUS) Enterprise in Singapore, this conference will be held in Singapore from 16-18 May 2007 with the theme "Emerging Models for the Entrepreneurial University: Regional Diversities or Global Convergence". Organized for the first time in Asia, Triple Helix VI 2007 will provide a global forum for academic scholars from different disciplinary perspectives as well as policy makers, university administrators and private sector leaders from different countries to exchange and share new learning about the diverse emerging models of the entrepreneurial university, the changing dynamics of University-Industry-Government interactions around the world and the complex roles of the university in local, regional and national economic development.

<http://www.triplehelix6.com>

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