

A-STAR, GE Global Research Join Forces to Develop Integrated Advanced Medical Imaging Technologies

Singapore - (ACN Newswire) - GE Global Research, the central technology development arm for GE Healthcare and all of GE's businesses, has signed a Memorandum of Understanding (MOU) with Singapore's Agency of Science, Technology and Research (A*STAR). This agreement will focus on advancing current medical imaging technologies and diagnostics to enable more accurate, earlier and faster clinical diagnoses of cancer and other diseases. The partnership between A*STAR and GE Global Research brings together two world-class research institutions, integrating their deep domain expertise in biomedical, science, and engineering capabilities to support this effort.

This MOU expands upon a productive collaboration between GE and A*STAR's Singapore Bioimaging Consortium (SBIC) using Hyperpolarized Carbon-13 technology. Early results exploring sub second bio-chemical imaging in Oncology applications helped pave the way for a broader scientific collaboration on projects in medical diagnostics and medical imaging. The goal is to improve diagnosis and tissue characterization in diseases that are prevalent in the Asian population, such as liver, lung, and gastric cancers.

Michael Idelchik, Vice President of Advanced Technology Programs at GE Global Research, said, "To more effectively combat cancer and other deadly diseases, more advanced diagnostic tools will be needed to help doctors become more prescriptive in their diagnoses and treatment regimens. Combining A*STAR's world-class biomedical and clinical expertise with GE's strengths in diagnostic and molecular imaging, we have an exciting opportunity to take medical diagnosis to this next level. Specifically, A*STAR will help us address cancers and other diseases more common in Asia and where pathology and outcomes are different as compared to the rest of the world."

Professor Low Teck Seng, Managing Director of A*STAR, said, "This win-win public-private partnership between A*STAR and GE comes at an opportune time with the increasing research interest in diseases affecting the Asian population. I am confident that A*STAR's cross-disciplinary capabilities in both the biomedical, and physical sciences & engineering research will complement GE's expertise in diagnostic and molecular imaging to meet today's complex healthcare challenges and enhance lives."

As part of the MOU, A*STAR and GE Global Research will collaborate to enhance medical imaging technologies in imaging modalities, ranging from magnetic resonance imaging (MRI) and positron emission tomography (PET) to computed tomography (CT).

In a Frost & Sullivan global market analysis report, the medical imaging sector was

valued at about US\$25 billion as of 2008, with MRI and CT scanners accounting for a combined 40% of the total global device medical imaging market. In one project, scientists from A*STAR's Institute of Microelectronics (IME) and GE scientists will explore the development of new imaging technologies to improve the speed and accuracy of clinical cancer diagnosis. Leveraging IME's network and partnerships with the microelectronics industry, this project could result in the development of a new local industry for Singapore in the healthcare technologies area.

In another project, A*STAR's Singapore Bioimaging Consortium (SBIC) and GE plan to develop novel imaging markers for hepatic cellular carcinoma (HCC), the most common type of liver cancer in Asia. This project will integrate biomedical imaging and pre-clinical model development expertise from SBIC with GE's molecular diagnostics technology to develop innovative, proprietary platforms to help advance the unique characterization of HCC in each patient. In this manner, the goal is that a specific type of cancer would be identified and the therapy tailored to each patient. This project encompasses a range of medical diagnostic technologies from imaging to molecular pathology biomarkers appropriate to HCC, relevant to the Asian population. Building on a close partnership with local hospitals, success in this project may lead to accelerated and accurate cancer diagnosis that enables more prescriptive and effective cancer treatments for patients. This will support A*STAR's efforts to develop Singapore as a Center for Oncology and Molecular Pathology.

About GE Global Research

GE Global Research is one of the world's most diversified industrial research labs, providing innovative technology for all of GE's businesses. Global Research has been the cornerstone of GE technology for more than 100 years, developing breakthrough innovations in areas such as medical imaging, energy generation technology, jet engines and lighting. GE Global Research is headquartered in Niskayuna, New York and has facilities in Bangalore, India, Shanghai, China and Munich, Germany. Visit GE Global Research at www.ge.com/research [1].

About A*STAR

The Agency for Science, Technology and Research (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 six consortia & centres, 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, and with other local and international partners. For more information about A*STAR, please visit www.a-star.edu.sg [2].

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