



PRESS RELEASE

Biopolis Shared Facilities and Carl Zeiss Announce Strategic Partnership and Collaboration

SINGAPORE – 14 September 2009: The Biopolis Shared Facilities (BSF) of the Biomedical Sciences Institutes (BSI), Agency for Science, Technology & Research (A*STAR) has inked a Memorandum of Understanding (MoU) with Carl Zeiss MicroImaging, a global market leader in microscopy solutions and systems for research, laboratories, routine and industrial applications.

The MoU formalizes a strategic partnership and collaboration which brings technology and scientific mind together to further boost life science research and education to the future generations in the science community.

The BSF Advanced Microscopic Imaging Laboratory is already equipped with a number of ZEISS high-end microscopy systems such as the High Speed Line Scanning 5LiveDuo that is being used in a variety of life science research projects and in supporting the Biopolis Scientific Community.

In this partnership, Carl Zeiss will work closely with the BSF Advanced Microscopic Imaging Laboratory to introduce cutting edge technology to the Biopolis research community with systems on a rotational basis. In the coming year, Carl Zeiss will equip the facility with two million-dollar light microscopy systems; the **SR-SIM** (Superresolution Structured Illumination Microscopy) and **PAL-M** (Photoactivated Localization Microscopy) for scientists to work with their experiments.

"This partnership will allow scientists at BSF to experience state of the art imaging capabilities, using the finest research equipment in Singapore" said Ven Raman, Managing Director of Carl Zeiss S.E.Asia & India.

"This MOU with Carl Zeiss marks a new milestone in BSF's development. Having high-end equipment is only one part of the equation. We wish to harness all the advanced features and capabilities residing in the equipment that we have so that our customers can benefit from them. More importantly this collaboration with Carl Zeiss will enable our scientists to access the latest innovations to advance the research being done at Biopolis," said Dr. Manjeet Singh, Deputy Director, BSF.

"This is an exciting collaboration which will help bring leading edge technology and know how to researchers in the Biopolis" said Dr. Sohail Ahmed, Principal Investigator, Institute of Medical Biology (IMB), A*STAR, and Scientific Advisor to the BSF Advanced Microscopic Imaging Laboratory.

Notes to the Editors:

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About Carl Zeiss

The BioSciences and Industrial divisions of Carl Zeiss MicroImaging GmbH, a 100% subsidiary of Carl Zeiss AG, endeavors to meet the needs of its users. As a manufacturer and supplier of microscopy solutions and systems for research, laboratories, routine and industrial applications, the company is one of the global market leaders. The product line includes light microscopes and camera systems, systems for laser scanning microscopy and fluorescence correlation spectroscopy, a wide selection of spectrometers and components for image processing and documentation. During fiscal year 2007/08, the Microscopy Group at Carl Zeiss generated revenues of approximately EUR 339 million with a global workforce of about 1,730.

Further information is available at www.zeiss.de/micro

Carl Zeiss AG is a leading group of companies operating worldwide in the optical and opto-electronic industry. The five independently operating business groups are active in the future-oriented markets of Medical and Research Solutions, Industrial Solutions and Lifestyle Products. Founded in 1846 in Jena, the company is headquartered in Oberkochen, Germany. The company has been a technological pioneer in optical innovation for more than 160 years.

Carl Zeiss develops and distributes products and services under the ZEISS brand name for biomedical research and medical technology, as well as for the semiconductor, automotive and mechanical engineering industries. Planetariums, binoculars, and camera and cine lenses are valued by millions of users around the world. The eyeglass business is now bundled in Carl Zeiss Vision International GmbH, the number two eyeglass provider in the world.

Carl Zeiss AG is fully owned by the Carl Zeiss Stiftung (Carl Zeiss Foundation). During fiscal year 2007/08 (ended Sept. 30), the company generated revenues of EUR 2,731 million. Carl Zeiss has around 13,000 employees in more than 30 countries, including over 8,000 in Germany.

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

www.a-star.edu.sg

A*STAR is Singapore's lead agency for fostering world-class scientific research and talent for a vibrant knowledge-based Singapore. A*STAR actively nurtures public sector research and development in Biomedical Sciences, Physical Sciences and Engineering, with a particular focus on fields essential to Singapore's manufacturing industry and new growth industries. It oversees 22 research institutes and consortia and supports extramural research with the universities, hospital research centres and other local and international partners. At the heart of this knowledge intensive work is human

capital. Top local and international scientific talent drive knowledge creation at A*STAR research institutes. The Agency also sends scholars for undergraduate, graduate and post-doctoral training in the best universities, a reflection of the high priority A*STAR places on nurturing the next generation of scientific talent.

About Biopolis Shared Facilities, Biomedical Sciences Institutes, A*STAR

www.bsf.a-star.edu.sg

The Biopolis Shared Facilities (BSF) is a strategic business unit established by the Biomedical Research Council (BMRC) to manage a first-class scientific-oriented service hub. BSF offers a wide spectrum of services, ranging from scientific services and research support services to meeting facilities.

Through centralisation of the key services, BSF seeks to maximise usage of key scientific equipment as well as support services. This centralization also brings convenience and savings to our customers. Most importantly, BSF promises Professional, Friendly and Prompt service to all customers.

BSF's core research support services include the supply of lab consumable supplies through the Biopolis Supply Centre (BSC). BSC keeps ready stock of a wide range of commonly used research consumables, sourced from different vendors and at best prices for the research community.

BSF also houses a Glassware Washing unit, which is equipped with state-of-the-art washing equipment that caters to both standard and specialised washing protocols. At BSF, we also provide standard and customized media, manufactured under stringent quality control protocols at our Media Preparation kitchen. Through BSF, customers can access more than 19 types of media for tissue culture, drosophila and bacterial work and up to 18 different types of buffers at various pHs.

Apart from the support services, BSF also provides a wide spectrum of scientific services such as Flow Cytometry, Automated Imaging and Analysis, Microarray, X-ray crystallography and Histopathology services.

In addition, BSF also operates and manages a number of meeting facilities including five theatrettes, a total of 12 meeting rooms, and a 28-seater video conferencing room at Biopolis.

Opening up New Dimensions in Scientific Research

Used by leading companies and research institutions around the world, Carl Zeiss' products provide engineers, scientists and medical researchers with the ability to "see" and identify the most minute component of any substance or element.

For example, the newly introduced **SR-SIM** and **PAL-M** open up the nano-world for cell biology to address many fundamental questions and to explore down to the molecular level, revealing structures at an unprecedented accuracy and detail resolution.

One of the major benefits of **SR-SIM** is the enlargement of spatial resolution in all three dimensions, made possible by projecting a special illumination pattern onto the specimen. This permits the imaging of any fluorophore with a lateral resolution of approximately 120 nanometers. The technique SR-SIM, which is compatible with standard specimen preparation techniques, allows the examination of model organisms now generally used in biomedical research.

The **PAL-M** technique enables a new dimension in fluorescence microscopy because cell structures can be observed with a resolution of about 20 nanometers for the first time. This is an order of magnitude higher than conventional fluorescence techniques. As a single molecule imaging method, it opens completely new dimensions of quantitative analysis of complex biological specimens.