

Joint Press Release

14 September 2009

WASEDA UNIVERSITY OPENS FIRST OVERSEAS BIOSCIENCES RESEARCH INSTITUTE IN SINGAPORE

*Waseda and A*STAR to foster closer ties through scientific collaborations and student exchange*

1. Waseda University today opened the Waseda Bioscience Research Institute in Singapore (WABIOS) in Biopolis. WABIOS will focus its research in the areas of bioimaging, bioengineering, biophysics and nano-biotechnology. It will also further develop the neuroscience-focused research findings derived from the Waseda-Olympus Bioscience Research Institute – a joint initiative between Waseda University and Olympus Corporation in Biopolis from 2004 – 2009. WABIOS has committed S\$2 million for its research activities here and will start with a few researchers from both Japan and Singapore. The establishment of WABIOS is particularly significant in that it marks the first time that Waseda University is setting up research operations overseas independently.

2. Professor Katsuhiko Shirai, President of Waseda University, and Mr. Lim Chuan Poh, Chairman of the Agency for Science, Technology and Research (A*STAR), signed a Memorandum of Intent (MOI) in Singapore today at the opening of WABIOS. The agreement aims to facilitate research collaborations between scientists from the two organisations through joint symposia and workshops as well as enable graduate students from Waseda University to spend up to 2 years at A*STAR research institutes during the course of their PhD studies under A*STAR's Research Attachment Programme (A*RAP).

3. Said Mr. Lim Chuan Poh, Chairman of A*STAR, "I like to congratulate Waseda University in the opening of WABIOS. Waseda's commitment to its R&D efforts at the Biopolis is an endorsement of Singapore's vision to building an international hub for scientific R&D. I hope Waseda would be able to tap on the spectrum of research capabilities found at Biopolis and Fusionopolis to build meaningful collaborations and generate impactful outcomes."

4. Professor Katsuhiko Shirai, President of Waseda University added, “By setting up our own lab in Biopolis, we will be able to collaborate with world-class researchers in ASTAR, take advantage of cutting edge technology, and explore new academic and research areas. Waseda University has been focusing on doing various research and educational activities in the Asia Pacific region and we found that among countries in the region, Singapore is quite an important place. Singapore has a strong national policy to be an international hub of Biomedical Sciences, and Biopolis is the very central research base in Singapore”.

5. The establishment of WABIOS in Singapore is a strategic move for Waseda University because it has been promoting internationalisation focused on the Asia-Pacific region. Singapore is well known as a crossroads of knowledge exchange between Japan, China and India and the West. WABIOS will function as a platform for academic exchange between researchers from Waseda University and A*STAR, and in the near future, the institute hopes to establish itself as an academic research centre for all the Japanese research organisations based in Singapore.

6. WABIOS will function as an overseas institute under the Waseda Institute for Advanced Study (WIAS). It will receive funding through a research grant from Japan’s Ministry of Education, Culture, Sports, Science and Technology (MEXT) disbursed through the Japan Science and Technology Agency (JST). In addition, the institute has plans in the midterm to employ distinguished researchers outside of Japan.

Enclosed:

Annex A - WABIOS Factsheet

Notes to the Editors:

For queries and clarifications, please contact:

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About Waseda University

<http://www.waseda.jp/top/index-e.html>

Founded in 1882, Waseda is a private university with 13 undergraduate faculties, 22 graduate/professional graduate/independent graduate courses catering to over 53,000 students. Employing “collaborative creation of knowledge in the Asia Pacific Region” as its slogan, Waseda University is committed to a variety of programs in the Asia Pacific region. Waseda is an active participant in research activities that involve industry, academic, government collaboration, and carries out research with grants from competitive external funds, won by the researchers of its research institutions who are recruited from both inside and outside the University. As of May 2009, about 3,000 foreign students are registered at Waseda, of which 31 are from Singapore.

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 A*STAR's Research Attachment Programme (ARAP)

ARAP is a collaboration between A*STAR and partner universities to provide research opportunities at A*STAR research institutes (RIs) and consortia. Under this programme, PhD students from partner universities will spend 1 to 2 years at A*STAR RIs under the joint supervision of staff of the A*STAR RI and the partner university.

ANNEX A

About Waseda Bioscience Research Institute in Singapore (WABIOS)

Goals of the New Institute

- Biopolis is a core base of research for Singapore which aims at making the country a functioning international hub-state for bioscience and biomedical science. Establishing a research institute of Waseda University within Biopolis to pursue collaborative, joint, and/or interdisciplinary research together with world-leading researchers focusing on A*STAR. We intend to open a new academic frontier by taking advantage of Singapore's availability for cutting-edge information. Medium and long-term goals include the advancement of translational research to apply the fruits of bioscience research to medical practice.

Research Themes

(1) Development of microscopic imaging techniques and study into cell structure, physical properties and function (Building a new cellular biophysics)

Cell biology usually treats temperature and force as physical quantities at the macro-level, but this research aims at developing a new cellular biophysics capable of controlling cellular functions by understanding the relationship between either intracellular micro-level temperatures or micro-level mechanical interactions and cellular functions (such as cell division, cardiac contraction, and intracellular transport) through applying thermal and mechanical energy in the form of local pulses.

(2) Strategic research integrating biology, chemistry, and information science (Building development processes for pharmaceuticals and diagnostic methods)

We aspire to create a new development process for pharmaceuticals and diagnostic methods through the building of a compound library integrating "chemistry" and "information science," evaluating the bioactivity of the compounds by integrating "chemistry" and "biology," and then through clarifying a "biology" based on "informatic" analysis of the data obtained from these studies. For the immediate future, we are planning the development of a highly sensitive bioimaging reagent based on versatile proteins.

(3) Medical application of nanobiotechnology (Research for development of biopharmaceuticals and biology-based medical devices)

This is where the fruits of Waseda University's fundamental research in nanobiotechnology will be applied to give real advances in medicine. As an example, interdisciplinary research of applied chemistry, biochemistry, bioengineering, and medicine will aim to realize and investigate the use of artificial red cells (1) for provision against natural disaster and emerging infections, (2) as oxygen carriers in tissue engineering, and (3) as carriers of

carbon monoxide and nitric oxide. In addition to this, we are also working on the application of ultra-thin polymer film (nanosheet) for wound dressing.

(4) Neurobiology and its application (Research for diagnosis and treatment of neural disorders)

This area pursues basic and applied sciences for the diagnosis and treatment of neural disorders. In particular, by exploiting engineering-related element technologies, a Brain Machine Interface (BMI) is being developed for the decoding and control of brain signals directly linked with higher brain functions. We hope to apply the technology to not only treatments and diagnoses but also wide fields (from nature sciences to social sciences), Based on a complimentary relationship between Japan and Singapore, the new institute will serve as a research base for researches difficult to implement in Japan, such as bridging researches between basic sciences and applied sciences, clinical trials, and international standardization of products and treatment methods.

Outline: WABIOS

Official Name: Waseda Bioscience Research Institute in Singapore
Founded on: September 14, 2009
Address: 11 Biopolis Way, #05-01/02 Helios, Singapore 138667
Telephone: +65-6478-9721
Web: <http://www.waseda.jp/WABIOS/>
Director: Dr. Shin'ichi Ishiwata
Number of Researchers:
PI: 4 (tentative), PD: local recruitment planned
*PI: Principal Investigator
*PD: Post-Doctoral Research Fellow