



## Press Release

11 March 2011

**For immediate release**

MEDIA RELEASE

# **First cancer drug developed in Singapore shows encouraging results in early human clinical trials**

National University Cancer Institute, Singapore and the Cancer Science Institute of Singapore, NUS partner local biotechnology company S\*BIO to further develop cancer drug, SB939.

SINGAPORE – SB939, a cancer drug developed and tested locally in Phase 1 patients will now be tested in patients with advanced lung cancer. SB939 was Singapore's first locally developed anti-cancer compound to enter Phase 1 clinical trials.

The proof-of-concept trials of SB939 will be conducted by clinicians from the National University Cancer Institute, Singapore (NCIS) and the Cancer Science Institute of Singapore (CSI Singapore). The team had earlier reported encouraging results from the drug's Phase 1 trial, which was run in conjunction with the compound's developer and owner, local biotechnology company S\*BIO Pte Ltd.

SB939 is an inhibitor of a group of enzymes called histone deacetylases (HDAC) that is implicated in tumorigenesis. SB939 is designed to be a "best-in-class" HDAC inhibitor and is known to have potent anti-tumour effects in preclinical studies. The primary objective in the Phase 1 study was to assess the safety and tolerability of SB939 and to recommend a dose for Phase 2 trials. In the study, thirty patients with advanced cancer were administered SB939 orally thrice weekly for three weeks in a four-week cycle.

Director, Haematology-Oncology Research Group, NCIS and lead investigator Dr Goh Boon Cher said, "The study has shown SB939 is well tolerated by patients with advanced cancer. Some patients in the Phase I trial also showed better than expected tumour growth control with few and minor side effects. Further laboratory studies indicated that SB939 displayed even greater potency when combined with



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several other cancer drugs. SB939's high potency, good oral bioavailability and tolerability demonstrate its potential to bring additional therapeutic benefits and when combined with other anti-cancer therapies has the potential to treat the major cancers affecting Singaporeans such as lung cancer."

In Singapore, 47,579 incident cancer cases were diagnosed among the resident population during the period of 2004-2008. Lung cancer ranks first in frequency of cancer mortality rates in males and second in women. Each week, close to 21 Singaporeans will die from lung cancer.<sup>1</sup>

Said "Dr Jan-Anders Karlsson, CEO of S\*BIO, "Expanding clinical testing of our HDAC inhibitor SB939 into a new indication such as lung cancer may provide further evidence of our compound's tolerability, safety and potential efficacy. The new study at NCIS and CSI Singapore is in line with S\*BIO's strategy of exploring new cancer indications where SB939 may potentially be active."

Added Dr Goh, who is also Programme Leader of the Experimental Therapeutics Programme and Deputy Director at CSI Singapore, "SB939 is significant as it demonstrates how far Singapore has progressed in the field of biotechnology drug research. To be able to develop and test a cancer drug from scratch to its current stage is testament to the capabilities of the research team, and the excellent infrastructure and resources at NCIS, CSI Singapore and S\*BIO."

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<sup>1</sup> Singapore Cancer Registry, Interim Report, Trends in Cancer Incidence in Singapore 2004-2008



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### **The National University Health System (NUHS)**

The National University Health System (NUHS) groups the National University Hospital (NUH), NUS Yong Loo Lin School of Medicine and NUS Faculty of Dentistry under a common governance structure to create synergies to advance health by integrating excellent clinical care, research and education.

The enhanced capabilities and capacity will enable the NUHS to deliver better patient care, train future generations of doctors more effectively and bring innovative treatments to patients through groundbreaking research.

For more information about NUHS, please visit [www.nuhs.edu.sg](http://www.nuhs.edu.sg)

### **The National University Cancer Institute, Singapore**

The National University Cancer Institute, Singapore (NCIS) offers a broad spectrum of cancer care and management covering both paediatric and adult cancers, with expertise in prevention, screening, diagnosis, treatment, rehabilitation and palliative care. The Institute's strength lies in the multi-disciplinary approach taken to develop a comprehensive and personalised plan for each cancer patient and his or her family.

NCIS draws on the expertise of its specialists in the fields of haematology-oncology, radiation oncology, gynaecologic oncology, paediatric oncology, surgical oncology, oncology nursing, oncology pharmacy, palliative care, pathology, radiology, medical specialities including gastroenterology and hepatology, infectious diseases, pulmonary and critical care, psychiatry, epidemiology and public health as well as other allied health sciences.

With several award-winning clinician-scientists and clinician-investigators, NCIS has an international reputation in translational research and clinical trials, providing patients with access to



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promising breakthroughs in cancer diagnostics, technology and therapies. NCIS is also closely affiliated with the Cancer Science Institute of Singapore, National University of Singapore.

The Institute's outreach efforts include prevention and screening programmes to reduce cancer mortality and to diagnose the disease at its most treatable stage.

For more information about NCIS, please visit [www.ncis.com.sg](http://www.ncis.com.sg)

### **S\*BIO Pte Ltd**

S\*BIO is a privately-held biotech company focused on the research and clinical development of novel targeted small molecule drugs for the treatment of cancer with leading programs around histone deacetylases (HDAC) and kinases. S\*BIO's HDAC inhibitor, SB939, is currently in Phase 2 trials. SB1518, S\*BIO's potent and orally-active JAK2 inhibitor, entered the clinic in 2008 and is now completing Phase 2 trials. It has received orphan drug designation from the U.S and the E.U. regulatory authorities. S\*BIO has entered into a development collaboration, and option & license agreement with Onyx Pharmaceuticals, Inc. to develop and commercialize SB1518 and its other novel JAK2 inhibitor, SB1578 in North America and Europe. S\*BIO's SB1317, a novel multikinase inhibitor, is in Phase 1 trials and under a worldwide exclusive license with Tragara Pharmaceuticals, Inc. for its development and commercialization.

In line with its vision to be a leading fully-integrated oncology-focused biotech company in Asia Pacific, S\*BIO has established a state-of-the-art R&D infrastructure, complemented by a strong clinical development team. S\*BIO has strong links with a network of medical oncologists in Asia Pacific and its investors include Bio\*One Capital a subsidiary of EDBI (EDB Investments), Aravis Ventures, Mitsui Ventures, Novartis Bioventures and other international funds. In 2009, S\*BIO received the BioSpectrum Editor's Choice, Emerging BioScience Company of Singapore Award.

For more information about S\*BIO, please visit [www.sbio.com](http://www.sbio.com)

### **Cancer Science Institute of Singapore (CSI Singapore)**

CSI Singapore, a research centre of excellence at the National University of Singapore (NUS), conducts a multifaceted and coordinated approach to cancer research, extending from basic cancer studies all the way to experimental therapeutics. The vision is to establish CSI Singapore as one of the top cancer research centres in the world. With highly interrelated programmes, the CSI Singapore will forge an integrated approach to better understand and treat cancer.

One of 5 research centres of excellence, established with a total funding of \$172 million from the National Research Foundation and the Ministry of Education over a period of 7 years, the CSI Singapore will focus on 4 key areas – cancer stem cells, cancer biology, genomic oncology and experimental therapeutics. Using these platforms to concentrate on cancers endemic to Asian populations such as leukemia, gastric, liver, lung and breast cancers, the insights gleaned will be applicable to cancers around the world, thereby providing an opportunity for Singapore to be a world leader in cancer biology and treatment. In addition, CSI Singapore plays a significant role in education at NUS with a new graduate programme in cancer biology which includes 2 new graduate modules.



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CSI Singapore is led by Professor Daniel G Tenen, who joined NUS from Harvard Medical School. Professor Tenen is a leader in the field of transcriptional regulation, hematopoiesis and cancer.

For more information on CSI Singapore, please visit [www.csi.nus.edu.sg](http://www.csi.nus.edu.sg)