



## NEWS RELEASE

29 Nov 2010

# A 'MEETING OF THE MINDS' AT A\*STAR-DUKE-NUS GRADUATE MEDICAL SCHOOL NEUROSCIENCE RESEARCH PARTNERSHIP'S (NRP) FIRST INTERNATIONAL NEURODEGENERATION SYMPOSIUM

*Eminent UK and Singapore researchers to address latest cutting-edge research in neurodegeneration as part of the UK-Singapore Partners in Science Programme*

1. More than 200 participants from public research institutes, universities, industry and hospitals in the United Kingdom, Singapore and the region will be in Biopolis, Singapore, on 29<sup>th</sup>- 30<sup>th</sup> of November 2010 to attend the first international neurodegeneration symposium organised by A\*STAR-Duke-NUS Graduate Medical School Neuroscience Research Partnership (NRP). This is the 26th symposium organised under the auspices of the UK-Singapore Partners in Science Programme in partnership with A\*STAR. It is also organized by the British High Commission, GlaxoSmithKline and supported by the Tsao Foundation.

2. The workshops and lectures at the symposium will focus on ongoing, cutting-edge research in neurodegenerative conditions such as Alzheimer's, Parkinson's, ALS (motor neuron disease) and frontotemporal dementia. Understanding neurodegeneration is especially important today given the rise in neurodegenerative diseases worldwide and their toll on the economy. Dementia alone is estimated to cost a hefty US\$604 billion, which is about 1% of the world's total Gross Domestic Product.<sup>1</sup>

3. Said Professor Dale Purves, Executive Director of the A\*STAR - Duke-NUS Graduate Medical School Neuroscience Research Partnership (NRP), "Singapore's ageing population means that the country is more susceptible to the high costs generally associated with neurodegenerative diseases. It is thus timely that NRP has organized this symposium with the dual objective of reviewing key developments in neurodegenerative research, and raising awareness about the prevalence of neurodegenerative diseases here. NRP will continue to devote resources to

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<sup>1</sup> According to World Alzheimer's Report 2010.

accelerate research in neuroscience and hasten the translational process to bring therapy and palliative care to those afflicted.”

4. Some of the highlights of the symposium include:

- “The Challenge of Neurodegenerative Disease” by Dr. Bai Lu, Vice President of Biology, GlaxoSmithKline, R&D China, Shanghai. Dr. Lu will address the complications involved in the drug discovery process for neurodegenerative diseases and the innovative approaches that are currently being explored.
- “Towards a Complete Dissection of the Genetic Aetiology Of Alzheimer’s Disease and Other Neurodegenerative Conditions” by Professor John Hardy from Reta Lila Weston Laboratories, UCL Institute of Neurology. Professor Hardy will detail how one can use next-generation sequencing to systematically identify genetic risks that lead or predispose one to the disease.
- “TDP-43 and FUS Place RNA Processing Proteins Centre Stage in the Pathogenesis of ALS and FTD” by Christopher E. Shaw from Institute of Psychiatry, King’s College London. Professor Shaw will provide an overview on how mutations in genes have provided new insights into disease pathogenesis.
- “The Use of Human Pluripotent Stem Cells to Model Human Disease” by Dr. Alan Colman, Executive Director of the Singapore Stem Cell Consortium and Principal Investigator at the A\*STAR Institute of Medical Biology. Dr. Colman will explain how induced pluripotent stem cells (iPSC) can in principle be created from fresh or frozen cells taken from patients suffering from any congenital disease, and how this can be used to investigate both a disease of premature ageing and a neurodevelopmental syndrome.
- “Research on Ageing and Neurodegeneration, Where Should We Go?” by Professor Barry Halliwell, Deputy President (Research & Technology) at the National University of Singapore. Professor Halliwell will close the symposium with a lecture on the future prospects for research on ageing and neurodegeneration.

A detailed programme of the symposium is attached at the Annex.

5. Said H.E. Mr. Paul Madden, British High Commissioner to Singapore, “The British government through the UK-Singapore Partners in Science is pleased to support researchers from both academia and industry at the Neurodegeneration Symposium, which brings together experts who will address issues affecting the ageing process. Managing an ageing population is an issue that both the UK and Singapore are grappling with and symposia such as these will help us understand and manage the crippling effects of neurodegenerative conditions better.”

6. Added Dr. Richard Rutter, Head of Biology of Singapore Neural Pathways Unit, R&D China, GlaxoSmithKline, "Since GlaxoSmithKline's R&D organization with responsibility for neurodegenerative diseases is now centered in the Asia Pacific region we also hope that the symposium will help direct research in Singapore to maximize on the close interaction that exists here between basic, translational and clinical research, and ultimately facilitate the identification and development of novel therapeutics for neurodegenerative diseases."

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## **AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH (A\*STAR)**

*For further queries, please contact:*

*Loh Xiu Hui*

Senior Officer, Corporate Communications, A\*STAR

Tel: 6826 6439 (O); 96863007 (Hp)

Email: [loh\\_xiu\\_hui@a-star.edu.sg](mailto:loh_xiu_hui@a-star.edu.sg)

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

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 nine consortia & centres, which are 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, hospitals, research centres, and with other local and international partners.

For more information on A\*STAR, please visit [www.a-star.edu.sg](http://www.a-star.edu.sg).

National Archives of Singapore

### **A\*STAR - Duke-NUS Graduate Medical School Neuroscience Research Partnership (NRP)**

The A\*STAR-Duke-NUS GMS NRP, forged in October 2007, aims to establish an integrated, multidisciplinary programme in neuroscience with a strong focus on translational research. This partnership will capitalise on the complementary research strengths and resources available within the A\*STAR research institutes and the Duke-NUS GMS Neuroscience and Behavioural Disorders (NBD) Signature Research Programme.

### **UK-Singapore Partners in Science Programme**

<http://www.britain.org.sg>

The UK-Singapore Partners in Science programme was established in November 2004. The aim is to stimulate deeper scientific partnerships between the UK and Singapore in cutting edge areas of science such as stem cells, discovery of life saving medicines, and tackling climate change. The programme was given further impetus when the Prime Ministers of the UK and Singapore signed a joint statement on science, engineering and technology in July 2005, which committed both countries to develop scientific collaborations and networks through thematic workshops involving more than 3000 researchers in Singapore.

More than 20 workshops have been conducted on subjects such as immunology, aquaculture, aerospace engineering, physical organic chemistry, microelectronics, etc, which have led to numerous collaborations between researchers from both countries. Following each workshop, travel grants (Collaboration Development Awards) are also given to researchers from Singapore and the region to visit the UK to cement collaborations and develop joint research projects. A number of successful outcomes have resulted, including more than 40 new collaborations and 60 funding proposals. .

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## SYMPOSIUM PROGRAMME

<b>MONDAY, 29 NOVEMBER 2010</b>	
9.45am to 10.00am	<b>Opening Address by Mr Sam Myers, First Secretary, Science and Innovation British High Commission Singapore</b>
10.00am to 10.05am	<b>Welcome by Professor Colin Blakemore, Chair of Organising Committee</b>
10.05am to 11.05am	<b>Dr Bai Lu, Vice President of Biology, GlaxoSmithKline, R&amp;D China, Shanghai</b> Opening Lecture: The Challenge of Neurodegenerative Disease
11.05am to 11.30am	<b>Break</b>
<b>MECHANISMS</b>	
11.30am to 12.10pm	<b>Review Lecture 1. Professor John Hardy</b> <b>Reta Lila Weston Laboratories, UCL Institute of Neurology</b> Towards a Complete Dissection of the Genetic Aetiology Of Alzheimer's Disease and Other Neurodegenerative Conditions
	<b>WORKSHOP ON MECHANISMS</b> (Chair: Professor Christopher Shaw; Co-Chair: Associate Professor Soong Tuck Wah)
12.10pm to 12.50pm	<b>Review Lecture 2. Professor Christopher Shaw</b> <b>Institute of Psychiatry, King's College London</b> TDP-43 and FUS Place RNA Processing Proteins Centre Stage in the Pathogenesis of ALS and FTD
12.50pm to 2.00pm	<b>Lunch</b>
2.00pm to 2.15pm	<b>Workshop Lecture 1. Professor Shirish Shenolikar</b> <b>Duke-NUS Graduate Medical School</b> Translation Repression in Management of Protein Misfolding Disorders
2.15pm to 2.50pm	<b>Workshop Lecture 2. Assistant Professor Eyleen Goh</b> <b>Duke-NUS Graduate Medical School</b> Regenerative Potential of Stem Cells in Neurodegenerative Diseases
2.30pm to 2.50pm	<b>Panel Discussion led by Chair, Co-Chair and Speakers</b>

## SYMPOSIUM PROGRAMME

MONDAY, 29 NOVEMBER 2010

MODELS	
2.50pm to 3.30pm	<b>Review Lecture 3. Professor David Rubinsztein</b> <b>Cambridge Institute for Medical Research, University of Cambridge</b> Autophagy and Neurodegeneration
3.30pm To 3.45pm	<b>Break</b>
	<b>MODELS</b> (Chair: Professor Nicholas Wood; Co-Chair: Associate Professor Lim Kah Leong)
3.45pm to 4.25pm	<b>Review 4. Professor Nicholas Wood</b> <b>Institute of Human Genetics and Health, UCL</b> Parkinson's Disease: Lessons from Genetics
4.25pm to 4.40pm	<b>Workshop Lecture 3. Dr Alan Colman</b> <b>Singapore Stem Cell Consortium</b> The Use of Human Pluripotent Stem Cells to Model Human Disease
4.40pm to 4.55pm	<b>Workshop Lecture 4. Associate Professor Lim Kah Leong</b> <b>National University of Singapore</b> Modelling PD in Fruitflies – Fruitful or Futile?
4.55pm to 5.15pm	<b>Panel Discussion led by Chair, Co-Chair and Speakers</b>

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## SYMPOSIUM PROGRAMME

**TUESDAY, 30 NOVEMBER 2010**

### MARKERS

9.30am to 10.10am	<p><b>Review Lecture 5. Professor Paul Matthews</b>  <b>GSK Clinical Imaging Centre, GlaxoSmithKline</b>            Thinking about How to Think about Biomarkers for Alzheimer's Disease</p>
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### MARKERS

(Chair: Professor Kevin Talbot; Co-Chair: Associate Professor Christopher Chen)

10.10am to 10.50am	<p><b>Review Lecture 6. Professor Kevin Talbot</b>  <b>Department of Clinical Neurology, University of Oxford</b>            Biomarkers in ALS and Parkinson's Disease: Clinical and Scientific Goals</p>
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10.50am to 11.10am	<p><b>Break</b></p>
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11.10am to 11.25am	<p><b>Workshop Lecture 5. Dr Julian Goggi</b>  <b>Singapore Bioimaging Consortium</b>            Preclinical Imaging in Neurodegeneration: Promise and Pitfalls</p>
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11.25am to 11.40pm	<p><b>Workshop Lecture 6. Associate Professor Christopher Chen</b>  <b>National University of Singapore</b>            Biomarkers for Dementia in Clinical Practice: Lost in Translation</p>
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11.40pm to 12.00pm	<p><b>Panel Discussion led by Chair, Co-Chair and Speakers</b></p>
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12.00pm to 1.00pm	<p><b>Professor Barry Halliwell, Deputy President (Research &amp; Technology), NUS</b>            Final Lecture: Research on Ageing and Neurodegeneration, Where Should We Go?</p>
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