PRESS RELEASE
23 November 2009

FROM JUMPING GENES AND BATHING CELLS TO THE CLINIC: NEW INSIGHTS TO FIGHTING CANCER AT NZ-SINGAPORE SYMPOSIUM

1. Cancer – the number one killer disease in Singapore — will be put under intense scrutiny at the New Zealand–Singapore Cancer Symposium held at the Biopolis from 23 to 24 November 2009. Twenty-two world-renowned scientists and clinicians from top universities and research institutes in New Zealand (NZ) and Singapore will join about 200 researchers here to discuss their latest findings in cancer research.

2. This meeting is jointly organised by A*STAR’s Institute of Molecular and Cell Biology (IMCB) and Liggins Institute at the University of Auckland in New Zealand. It has a wide spectrum of topics, ranging from the genetic basis and cellular aspects of cancer spread, to novel approaches to treat cancer. This means that scientists and those with at least an education in biology at university level could benefit from the symposium.

3. Some highlights are:
   a. “Harnessing transposons for cancer gene discovery” – a talk by Professor Nancy Jenkins, Deputy Director, IMCB, A*STAR. Prof Jenkins will discuss how using transposons, or “jumping genes”, can disrupt normal DNA sequences and thus mimic various cancer types that allow them to be studied. Her lab has used this method to model more than a dozen different types of cancer, including those that are common in Asia, such as gastric cancer.
b. “Programming human T cells for cancer therapy” – a talk by Professor Rod Dunbar from the University of Auckland and who is Director of the Maurice Wilkins Centre, a New Zealand Centre of Research Excellence. Prof Dunbar has developed a new system which bathes immune cells (T cells) in an environment that stimulates them to behave differently. He will describe how this in turn led to the generation of T cells with valuable properties that could potentially enable their use in cell therapy for cancer patients.

c. “Systems biology in cancer medicine” – a talk by Professor Edison Liu, Executive Director of the Genome Institute of Singapore (GIS) under A*STAR. Prof Liu will speak about the way genomic knowledge and new technologies are changing the understanding of cancer. He will also share how the integrative, genomic approaches used by GIS researchers to model complex interactions allowed them to quickly uncover complex mechanisms of drug action.

d. “Lung cancer in New Zealand – approaches to improving therapy” – a talk by Professor Mark McKeage from the University of Auckland and who is Consultant Medical Oncologist at Auckland City Hospital. Prof McKeage will discuss how novel anti-cancer drugs and new models of care that involve lung cancer molecular profiling are being developed as approaches to treat patients with advanced lung cancer.

(A programme of the symposium may be found at the Annex.)

4. Said Professor Peter Lobie, Associate Director of the Liggins Institute, “At this symposium, anyone interested in knowing more about cancer — from university science students, to chemists, statisticians or clinicians — will be able to gain a deeper appreciation of the biology behind the killer disease through the wide-ranging topics.”
5. He added, “Cancer is a heterogeneous disease caused by many factors. In order to reduce the public health burden of cancer, we need to adopt a multi-disciplinary approach to understand the biochemistry and genetics behind the disease before novel therapies can be applied to the clinic.”

6. “The NZ-Singapore Cancer Symposium serves as an excellent platform for researchers from both countries to network and form collaborations. IMCB is very proud to have played a role in organising this meeting, and will continue to pursue excellence in basic biomedical sciences research, with the aim of using that knowledge to develop better treatments for complex human diseases such as cancer,” said Professor Neal Copeland, Executive Director of IMCB. Prof Copeland, one of the top 50 most-cited biomedical scientists in the world and who co-authored over 750 scientific papers, had delivered the opening address as host of the symposium.

7. In 2010, researchers from New Zealand and Singapore collaborating on projects in cancer research may apply for funding under the A*STAR-Health Research Council joint research fund. Established in 2008, the joint research fund aims to conduct joint calls for proposals in fields of mutual interests. The first grant call in metabolic diseases was announced in May 2009 and the second grant call for research in cancer will be announced in 2010.

AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH

For more information, please contact:
Wang Yunshi (Ms)
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Email: wang_yunshi@a-star.edu.sg

About the Institute of Molecular and Cell Biology (IMCB)
The Institute of Molecular and Cell Biology (IMCB) is a member of Singapore’s Agency for Science, Technology and Research (A*STAR) and is funded through A*STAR’s Biomedical Research Council (BMRC). It is a world-class research institute that focuses its activities on six major fields: Cell Biology, Developmental
Biology, Genomics, Structural Biology, Infectious Diseases, Cancer Biology and Translational Research, with core strengths in cell cycling, cell signalling, cell death, cell motility and protein trafficking. Its achievements include leading an international consortium that successfully sequenced the entire pufferfish (fugu) genome. The IMCB was awarded the Nikkei Prize 2000 for Technological Innovation in recognition of its growth into a leading international research centre and its collaboration with industry and research institutes worldwide. Established in 1987, the Institute currently has 35 independent research groups with more than 400 staff members.

For more information about IMCB, please visit www.imcb.a-star.edu.sg

About the Agency for Science, Technology and Research (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 seven consortia & centre, 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.

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ANNEX

Joint NZ-Singapore Cancer Symposium

Venue: Breakthrough Theatrette, Level 4, Matrix Building, Biopolis

Monday, 23 November 2009  (Day 1)

8.40am – 9.00am  Registration

Session Chairperson:  Peter Lobie
Liggins Institute, University of Auckland
New Zealand

9.00am – 9.05am  Welcoming Remarks by
Neal Copeland
Executive Director
Institute of Molecular and Cell Biology, Singapore

9.05am – 9.10am  Welcoming Remarks by
Peter Lobie
Associate Director
Liggins Institute, University of Auckland, New Zealand

9.10am – 9.50am  Nancy Jenkins
Institute of Molecular and Cell Biology, Singapore
Title: “Harnessing Transposons for Cancer Gene Discovery”

9.50am – 10.30am  Cristin Print
University of Auckland, New Zealand
Title: “Insights into Cancer Biology Through Bioinformatics”

10.30am – 10.50am  Morning Coffee/Tea Break

10.50am – 11.30am  Anthony Reeve
University of Otago, New Zealand
Title: “Colorectal Cancer Genomics”

11.30am – 12.10pm  Mik Black
University of Otago, New Zealand
Title: “Identifying the Molecular Drivers of Cancer Progression”

12.10pm – 1.10pm  Lunch
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Joint NZ-Singapore Cancer Symposium

Venue: Breakthrough Theatrette, Level 4, Matrix Building, Biopolis

Tuesday, 24 November 2009 (Day 2)

8.40am – 9.00am Registration

Session Chairperson: Anthony Reeve
University of Otago
New Zealand

9.00am – 9.40am Edison Liu
Genome Institute of Singapore, Singapore
Title: “Systems Biology in Cancer Medicine”

9.40am – 10.20am Yoshiaki Ito
Cancer Science Institute Singapore, NUS, Singapore
Title: “RUNX3, a Gatekeeper of Gastrointestinal Tract Cancers”

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# Joint NZ-Singapore Cancer Symposium

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**Tuesday, 24 November 2009  (Day 2)**

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4. Said Professor Peter Lobie, Associate Director of the Liggins Institute, “At this symposium, anyone interested in knowing more about cancer — from university science students, to chemists, statisticians or clinicians — will be able to gain a deeper appreciation of the biology behind the killer disease through the wide-ranging topics.”
5. He added, “Cancer is a heterogeneous disease caused by many factors. In order to reduce the public health burden of cancer, we need to adopt a multi-disciplinary approach to understand the biochemistry and genetics behind the disease before novel therapies can be applied to the clinic.”

6. “The NZ-Singapore Cancer Symposium serves as an excellent platform for researchers from both countries to network and form collaborations. IMCB is very proud to have played a role in organising this meeting, and will continue to pursue excellence in basic biomedical sciences research, with the aim of using that knowledge to develop better treatments for complex human diseases such as cancer,” said Professor Neal Copeland, Executive Director of IMCB. Prof Copeland, one of the top 50 most-cited biomedical scientists in the world and who co-authored over 750 scientific papers, had delivered the opening address as host of the symposium.

7. In 2010, researchers from New Zealand and Singapore collaborating on projects in cancer research may apply for funding under the A*STAR-Health Research Council joint research fund. Established in 2008, the joint research fund aims to conduct joint calls for proposals in fields of mutual interests. The first grant call in metabolic diseases was announced in May 2009 and the second grant call for research in cancer will be announced in 2010.

AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH

For more information, please contact:
Wang Yunshi (Ms)
Corporate Communications
Agency for Science, Technology and Research (A*STAR)
Tel: (65) 6826 6443
Email: wang_yunshi@a-star.edu.sg

About the Institute of Molecular and Cell Biology (IMCB)
The Institute of Molecular and Cell Biology (IMCB) is a member of Singapore’s Agency for Science, Technology and Research (A*STAR) and is funded through A*STAR’s Biomedical Research Council (BMRC). It is a world-class research institute that focuses its activities on six major fields: Cell Biology, Developmental
Biology, Genomics, Structural Biology, Infectious Diseases, Cancer Biology and Translational Research, with core strengths in cell cycling, cell signalling, cell death, cell motility and protein trafficking. Its achievements include leading an international consortium that successfully sequenced the entire pufferfish (fugu) genome. The IMCB was awarded the Nikkei Prize 2000 for Technological Innovation in recognition of its growth into a leading international research centre and its collaboration with industry and research institutes worldwide. Established in 1987, the Institute currently has 35 independent research groups with more than 400 staff members.

For more information about IMCB, please visit www.imcb.a-star.edu.sg

About the Agency for Science, Technology and Research (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 seven consortia & centre, 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 about A*STAR, please visit www.a-star.edu.sg
ANNEX

Joint NZ-Singapore Cancer Symposium

Venue: Breakthrough Theatrette, Level 4, Matrix Building, Biopolis

Monday, 23 November 2009 (Day 1)

8.40am – 9.00am  Registration

Session Chairperson: Peter Lobie
Liggins Institute, University of Auckland
New Zealand

9.00am – 9.05am  Welcoming Remarks by
Neal Copeland
Executive Director
Institute of Molecular and Cell Biology, Singapore

9.05am – 9.10am  Welcoming Remarks by
Peter Lobie
Associate Director
Liggins Institute, University of Auckland, New Zealand

9.10am – 9.50am  Nancy Jenkins
Institute of Molecular and Cell Biology, Singapore
Title: “Harnessing Transposons for Cancer Gene Discovery”

9.50am – 10.30am  Cristin Print
University of Auckland, New Zealand
Title: “Insights into Cancer Biology Through Bioinformatics”

10.30am – 10.50am  Morning Coffee/Tea Break

10.50am – 11.30am  Anthony Reeve
University of Otago, New Zealand
Title: “Colorectal Cancer Genomics”

11.30am – 12.10pm  Mik Black
University of Otago, New Zealand
Title: “Identifying the Molecular Drivers of Cancer Progression”

12.10pm – 1.10pm  Lunch
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Affiliation</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.10pm – 1.50pm</td>
<td>Dmitry Bulavin</td>
<td>Institute of Molecular and Cell Biology, Singapore</td>
<td>“p38MAPK as an Oncogene”</td>
</tr>
<tr>
<td>1.50pm – 2.30pm</td>
<td>Vinay Tergaonkar</td>
<td>Institute of Molecular and Cell Biology, Singapore</td>
<td>“New Controls of the NFκB Pathway”</td>
</tr>
<tr>
<td>2.30pm – 3.10pm</td>
<td>Wan Jin Hong</td>
<td>Institute of Molecular and Cell Biology, Singapore</td>
<td>“The Emerging Role of TAZ and YAP, the Targets of the Hippo Tumour Suppressor Pathway, in Human Cancer”</td>
</tr>
<tr>
<td>3.10pm – 3.50pm</td>
<td>Parry Guilford</td>
<td>University of Otago, New Zealand</td>
<td>“The Initiation of Diffuse Gastric Cancer”</td>
</tr>
<tr>
<td>3.50pm – 4.10pm</td>
<td><strong>Afternoon Coffee/Tea Break</strong></td>
<td></td>
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<tr>
<td>4.10pm – 4.50pm</td>
<td>Ernesto Guccione</td>
<td>Institute of Molecular and Cell Biology, Singapore</td>
<td>“Histone H3 Arginine 2 Methylation Plays a Pivotal Role in Transcription Regulation”</td>
</tr>
<tr>
<td>4.50pm – 5.30pm</td>
<td>Qiang Yu</td>
<td>Genome Institute of Singapore, Singapore</td>
<td>“Epigenetic Regulation of Oncogenic Signalling in Cell Fate Determination”</td>
</tr>
<tr>
<td>5.30pm – 6.10pm</td>
<td>Jean Paul Thiery</td>
<td>Institute of Molecular and Cell Biology, Singapore</td>
<td>“Epithelial-mesenchymal Transition and its Significance in Tumour Progression”</td>
</tr>
</tbody>
</table>
Joint NZ-Singapore Cancer Symposium

Venue: Breakthrough Theatrette, Level 4, Matrix Building, Biopolis

Tuesday, 24 November 2009  (Day 2)

8.40am – 9.00am  Registration

Session Chairperson:  Anthony Reeve  
University of Otago  
New Zealand

9.00am – 9.40am  Edison Liu  
Genome Institute of Singapore, Singapore  
Title: “Systems Biology in Cancer Medicine”

9.40am – 10.20am  Yoshiaki Ito  
Cancer Science Institute Singapore, NUS, Singapore  
Title: “RUNX3, a Gatekeeper of Gastrointestinal Tract Cancers”

10.20am – 10.50am  Morning Coffee/Tea Break

10.50am – 11.30am  Rod Dunbar  
University of Auckland, New Zealand  
Title: “Programming Human T Cells for Cancer Therapy”

11.30am – 12.10pm  Franca Ronchese  
Malaghan Institute of Medical Research, Wellington, New Zealand  
Title: “Strategies to Initiate and Sustain Anti-tumour Immune Responses”

12.10pm – 1.30pm  Lunch
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Institution, Country</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.30pm – 2.10pm</td>
<td><strong>Bill Denny</strong></td>
<td>University of Auckland, New Zealand</td>
<td>“Drug Development in the Auckland Cancer Society Research Centre, University of Auckland: Hypoxia-activated Cytotoxins and PI3 Kinase Inhibitors”</td>
</tr>
<tr>
<td>2.10pm – 2.50pm</td>
<td><strong>Bruce Baguley</strong></td>
<td>University of Auckland, New Zealand</td>
<td>“The Story of DMXAA (ASA404): A New Drug Targetting the Tumour Blood Supply”</td>
</tr>
<tr>
<td>2.50pm – 3.30pm</td>
<td><strong>Peter Lobie</strong></td>
<td>Liggins Institute, University of Auckland, New Zealand</td>
<td>“Rational Selection of Artemin as a Novel Target in Oncology”</td>
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<tr>
<td>3.30pm – 4.00pm</td>
<td><em>Afternoon Coffee/Tea Break</em></td>
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<tr>
<td>4.00pm – 4.40pm</td>
<td><strong>Mark McKeage</strong></td>
<td>University of Auckland, New Zealand</td>
<td>“Lung Cancer in New Zealand – Approaches to Improving Therapy”</td>
</tr>
<tr>
<td>4.40pm – 5.20pm</td>
<td><strong>Qi Zeng</strong></td>
<td>Institute of Molecular and Cell Biology, Singapore</td>
<td>“PRL-3 Phosphatase and Cancer Metastasis”</td>
</tr>
<tr>
<td>5.20pm – 6.00pm</td>
<td><strong>David Lane</strong></td>
<td>A*STAR, Singapore</td>
<td>“Drug Discovery in the p53 Pathway”</td>
</tr>
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END