PRESS RELEASE

INTERNATIONAL CANCER RESEARCH CONFERENCE ORGANISED BY A*STAR AND NATIONAL CANCER CENTRE SINGAPORE

- 350 top international scientists will gather to share latest discoveries on targeting p53, the most frequent mutated gene in all cancer types
- p53 is a major tumour suppressor which defends cells in the body from any form of stress
- The Conference will hear first-hand from A*STAR and NCCS researchers on their discovery of antibodies to detect mutant p53

Singapore, 5 July 2017 – One of the largest cancer research conferences in the world, the 17th International p53 Workshop, will be hosted in Singapore for the first time in 35 years. This is the second time the meeting, which is organised by prominent cancer researchers, is held in Asia.

The five-day event (8-12 July 2017) led by the Agency for Science, Technology and Research's (A*STAR) p53 Laboratory and National Cancer Centre Singapore (NCCS) will be attended by a large number of top scientists around the world, gathering about 350 leaders in the cancer research field to cover the latest advancements in targeting the p53 pathway.

Known as the "guardian of the genome", p53 works as a major tumour suppressor which defends cells in the body from any forms of stress, including radiation, preventing them from becoming cancerous. However, p53 itself can be mutated, losing its ability to prevent cancer formation. In the mutant form, it promotes cancer cell survival and hinders cancer treatment.

Currently there are no approved drugs that work against this mutant gene. A recent breakthrough study has found a way to detect mutant p53 selectively. A research team led by Prof Sir David Lane, Chief Scientist, A*STAR and Director, p53 Laboratory and Prof Kanaga Sabapathy, Head, Division of Cellular and Molecular Research, NCCS, generated antibodies that are specific to each p53 mutant and tested them on patient samples.

"As there are a large number of p53 mutants, there is no single drug treatment that can be used against all of them, making detection and treatment very complex. In our study, we discovered that these antibodies are able to identify the various types of mutant p53 individually. We are now moving on to find out whether these antibodies can be used as a

drug to treat the mutant p53. If successful, it means we can potentially treat almost fifty per cent of all human cancers which are caused by p53", explained Prof Sabapathy, who is also Professor at the Cancer and Stem Cell Biology Programme at Duke-NUS.

Prof Sir David Lane added, “p53 is the most frequent gene mutation in all cancer types, especially in colorectal cancer, the number one cancer in Singapore affecting both males and females. We hope that through our extensive research efforts in p53, we will be able to translate our findings to more targeted and impactful clinical outcomes in the next five to 10 years. This year’s International p53 Workshop brings together some of the top scientists in cancer research from both Asia and the rest of the world. I look forward to the discussions that will unfold over the course of the event and spark more that add to the ongoing research.”

Prof Sir David Lane and Prof Sabapathy are leading the efforts in organising this conference to bring together scientists in the same research field to present and discuss novel basic, translational and clinical research on the gene.

Professor Lane and Prof Emeritus Arnold Levine of the Institute for Advanced Study, USA, both of whom discovered the p53 tumour suppressor protein in 1979, will give plenary talks during the opening of the conference, which will be held at the Biopolis’ Breakthrough Theatrette on 8th July 2017. For more information, please visit http://p53singapore2017.com.

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About the Agency for Science, Technology and Research (A*STAR)
The Agency for Science, Technology and Research (A*STAR) is Singapore's lead public sector agency that spearheads economic oriented research to advance scientific discovery and develop innovative technology. Through open innovation, we collaborate with our partners in both the public and private sectors to benefit society.

As a Science and Technology Organisation, A*STAR bridges the gap between academia and industry. Our research creates economic growth and jobs for Singapore, and enhances lives by contributing to societal benefits such as improving outcomes in healthcare, urban living, and sustainability.

We play a key role in nurturing and developing a diversity of talent and leaders in our Agency and Research Institutes, the wider research community and industry. A*STAR oversees 18 biomedical sciences and physical sciences and engineering research entities primarily located in Biopolis and Fusionopolis.

For more information on A*STAR, please visit www.a-star.edu.sg

About National Cancer Centre Singapore
National Cancer Centre Singapore (NCCS) provides a holistic and multi-disciplinary approach to cancer treatment and patient care. We treat almost 70 per cent of the public sector oncology cases, and they are benefiting from the sub-specialisation of our clinical oncologists. NCCS is also accredited by the US-based Joint Commission International for its quality patient care and safety. To deliver among the best in cancer treatment and care,

our clinicians work closely with our scientists who conduct robust cutting-edge clinical and translational research programmes which are internationally recognised. NCCS strives to be a global leading cancer centre, and shares its expertise and knowledge by offering training to local and overseas medical professionals. www.nccs.com.sg

About p53 Laboratory

The A*STAR p53 Laboratory, is headed by Professor Sir David Lane. Widely known as the founder of the p53 molecule, Professor Sir David Lane is a globally famous and award-winning researcher who has published more than 350 research papers. The p53 Laboratory engages in comprehensive R&D activity ranging from basic research to the development of new therapeutics and diagnostics focusing on p53 pathway.

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