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PerkinElmer and Genome Institute of Singapore Open Joint Research Laboratory to Advance Precision Oncology

Collaborative R&D efforts supporting real-time biomarker development for predicting therapeutic response may pave the way for delivery of precision medicine for cancer

Waltham, Mass and Singapore – April 26, 2016 – [PerkinElmer, Inc.](#), a global leader focused on improving the health and safety of people and the environment, and the Genome Institute of Singapore (GIS), a biomedical sciences research institute under Singapore's Agency for Science, Technology and Research (A*STAR), today announced the opening of the PerkinElmer-GIS Centre for Precision Oncology. Leaders from PerkinElmer and GIS attended the official opening ceremony today and discussed objectives for the joint research laboratory.

The joint laboratory aims to develop a state-of-the-art high-throughput screening (HTS) platform to predict therapeutic sensitivity in next-generation patient-derived tumor models in real-time, with the ultimate goal of bringing precision oncology research results into the clinic. Specifically, the platform will utilize sequence-informed studies and HTS/HCS focused compound library screens to test the efficacy of different standard of care and pathway-specific inhibitors in 3D tumor micro-spheroid culture models derived either directly from patient primary tumors or patient-derived models (PDX).

The collaboration combines PerkinElmer's capabilities in cell-based research imaging technologies with the GIS' expertise in cancer therapeutics and stratified oncology, cancer stem cell biology and adult/embryonic stem cell biology, and regenerative medicine. The resulting research will include high throughput screening to help provide insights related to molecular mutation and aid in the development of biomarkers for patient stratification.

"Our collaboration with GIS brings together cutting-edge equipment and services along with insights from some of the world's leading cancer researchers," said Brian Kim, President, Life Sciences & Technology, PerkinElmer. "PerkinElmer's integrated solutions empower researchers to reach greater insights for greater outcomes. Combined with GIS's knowledge and experience, this partnership has the potential to unlock new doors in the future of applying precision medicine to cancer treatment."

In the PerkinElmer-GIS Centre for Precision Oncology, GIS provides state-of-the-art patient-derived primary tumor cultures in 3D organoids and tumor microspheroids that mimic tumor architecture and maintain patient-specific genomic, epigenomic, and gene expression signatures. These models can be used for developing next-generation single or combinatorial drug screens and synthetic lethal screens. PerkinElmer complements this effort by providing advanced research technology solutions including: the Operetta[®] High Content Imaging System, Opera Phenix[™] High Content Screening System, the FMT 4000 In Vivo Screening System, the Mantra[™] Quantitative Pathology workstation, and the EnSpire[®] Multimode Plate Reader, in addition to providing technical expertise for advanced high-throughput quantitative imaging and analysis. Under this collaboration, PerkinElmer and GIS will jointly develop solutions that would integrate genomic sequencing and mutation data, with that of phenotypic data obtained in patient-derived models, as well as patient data in the clinic. These integrated solutions may help further enable translational research in oncology.

"This collaboration represents another milestone for GIS which has, over the recent few years, strategically collaborated with industry and clinical partners to spearhead and innovate research techniques in order to prioritize patient care. We are pleased to jointly open a laboratory with PerkinElmer focused on expanding GIS leadership in clinical cancer research and translational medicine," said Professor Ng Huck Hui, Executive Director, GIS. "On our part, GIS is committed to provide staff, equipment and reagents. We look forward to working closely with PerkinElmer, leveraging our respective strengths, in order to advance precision oncology and bring our research findings directly to patients."

About PerkinElmer

PerkinElmer, Inc. is a global leader focused on improving the health and safety of people and the environment. The Company reported revenue of approximately \$2.3 billion in 2015, has about 8,000 employees serving customers in more than 150 countries, and is a component of the S&P 500 Index. Additional information is available through 1-877-PKI-NYSE, or at www.perkinelmer.com.

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About the Genome Institute of Singapore (GIS)

The Genome Institute of Singapore (GIS) is an institute of the Agency for Science, Technology and Research (A*STAR). It has a global vision that seeks to use genomic sciences to achieve extraordinary improvements in human health and public prosperity. Established in 2000 as a centre for genomic discovery, the GIS will pursue the integration of technology, genetics and biology towards academic, economic and societal impact.

The key research areas at the GIS include Human Genetics, Infectious Diseases, Cancer Therapeutics and Stratified Oncology, Stem Cell and Regenerative Biology, Cancer Stem Cell Biology, Computational and Systems Biology, and Translational Research.

The genomics infrastructure at the GIS is utilised to train new scientific talent, to function as a bridge for academic and industrial research, and to explore scientific questions of high impact.

For more information on the GIS, please visit www.gis.a-star.edu.sg

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

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