

**MEDIA RELEASE
FOR IMMEDIATE RELEASE**

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**PYROBETT PARTNERS GIS TO DEVELOP NOVEL PYROSEQUENCING
PLATFORM FOR CLINICAL DIAGNOSTICS**

SINGAPORE – A*STAR’s Genome Institute of Singapore (GIS) has established a strategic joint laboratory initiative with Pyrobett Pte Ltd, a Singapore-based joint venture between BMS¹ and QIAGEN² to develop a pyrosequencing platform for clinical diagnostics. Located within the same building as GIS, the new GIS-Pyrobett laboratory is in line with GIS’ global vision to use genomic science towards improving modern healthcare.

Pyrosequencing is a technique of ‘sequencing by synthesis’, where sequences are delivered by performing ‘gold standard’ genetic analysis on luminometric-detected pyrophosphate (PPi), which is well-released during DNA synthesis.

As part of the collaboration, Pyrobett will integrate its pyrosequencing platform technology with GIS’s molecular diagnostic assay development expertise to develop and validate pyrosequencing-based diagnostics assays covering a wide range of bacterial and viral genotyping, mutations associated with drug resistance, as well as cancer detection. The novel pyrosequencing platform currently developed by Pyrobett and GIS is a first-of-its-kind real-time sequencing platform that is able to churn out analysed sequence data, including nucleic acid extraction and target DNA amplification in less than five hours.

“With an automated workflow and simple user interface, the pyrosequencer enables users to confidently identify and quantify genetic hotspots, as well as validate whole genome sequencing or sequence array data with high accuracy at a low cost,” said Mr John Corbett, CEO of Pyrobett.

Dr Alexander Lezhava, group leader and collaboration lead at the GIS, said, “Together with GIS’s genomics expertise, our Translational Research Laboratory³ will support the GIS-Pyrobett joint laboratory diagnostics assays development and validation. The joint laboratory is also in the process of establishing important collaborations with major hospitals in Singapore to accomplish clinical validation studies.”

¹ BMS is a biotechnology company that designs instrumentation for life sciences

² QIAGEN is a leading provider of innovative Sample to Insight solutions

³ The Translational Research Laboratory at the GIS is a recently ISO-certified entity under ISO 13485, a quality management system standard for medical devices (http://www.iso.org/iso/catalogue_detail?csnumber=36786).

Professor Ng Huck Hui, Executive Director of GIS said, “The GIS-Pyrobett pyrosequencing platform will allow healthcare practitioners to obtain valuable genomic data to get to the crux of medical conditions in a quicker, more accurate and cost-effective manner. This goes a long way in better informing clinical diagnosis and contributing to targeted therapeutics for patients.”

“A common theme today is that information is becoming the driver in healthcare. Guiding medical treatments using genomic information is critical, especially to achieve the best clinical outcomes for patients,” said Jean-Pascal Viola, Senior Vice President, Head of Corporate Business Development at QIAGEN. “By providing the leading technologies and efficient workflows, this collaboration will create a platform to better guide research and provide precise diagnosis for medical decision-making.”

IMAGE

Note to Editors: please email our media contacts for high-resolution photos for publication.



*Representatives of the GIS-Pyrobett joint laboratory initiative (from left): Mr Ian Martin (VP and Head of Commercial Operations, Molecular Diagnostics and Life Science, Asia Pacific, QIAGEN), Mr Jean-Pascal Viola, Dr Ulrich Schriek (VP for Corporate Business Development, QIAGEN), Dr Benjamin Seet (Executive Director of the Biomedical Research Council, A*STAR), Mr John Corbett, Prof Ng Huck Hui, Dr Alexander Lezhava, Dr Michael Rossbach (Asst Director, Office of Strategic Alliances and Knowledge Management, GIS), Dr Valin Reja (Scientist, BMS).*

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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 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 about GIS, please visit: www.gis.a-star.edu.sg

About Pyrobett Pte Ltd

Pyrobett is a Singapore based company specialising in developing IVD applications using targeted re-sequencing detection technologies; and currently working with the GIS to develop assays for drug resistance to microbial infection.