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**MEDIA RELEASE  
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**A\*Star's Genome Institute Of Singapore Strengthens Its Genome Sequencing Capabilities Through Collaboration With Bt**

**Singapore** – Research institutes that deal in genomic technology require large computing and data resources. Those with inadequate computing technologies often face scalability issues, which slow research in new genome sequencing techniques and technologies.

A\*STAR's Genome Institute of Singapore (GIS) has empowered its existing genomic analysis capabilities through collaboration with BT Group (BT) to create a cloud-based Next Generation Sequencing (NGS) environment. The advantages of NGS are the reduced time it takes for GIS to develop Next-Generation-Sequencing analytical software and to make it available to a wider reach of research communities and external parties.

GIS Executive Director Dr Ng Huck Hui said: "This collaboration with BT is in line with our goal to integrate technology, genetics and biology in order to make a positive impact on society. Through this collaboration, we will be able to expedite our research into commercial and eventually clinical applications to analyse complex Next-Generation-Sequencing (NGS) data, and enhance the development of algorithms to analyse disease etiologies."

BT will supply GIS with access to the BT Cloud Compute infrastructure built on the BT for Life Sciences platform. GIS' compute-intense workloads will be transferred into the cloud and tested, allowing its performance to be enhanced.

Kevin Taylor, president of BT in Asia Pacific, Middle East and Africa (AMEA), said: "The development of therapies often involves 'peaky demands' for large amounts of compute power and this has been a major challenge to the life sciences industry. BT for Life Sciences provides secure cloud-based technology options that reduce the time taken to assemble the necessary computing platform, and then make the applications run in a much shorter time. This creative combination of technology helps the life science sector realise the benefits in the cloud. It aligns completely with GIS' vision of using science as a

means to achieve greater gains in human health. Through this partnership, we will help GIS deliver outcomes that will benefit society as a whole.”

GIS’ Chief Scientific Computing Officer Dr Fu Zhiyan said: “At the GIS, we have developed computer production pipelines to analyse NGS data and run them on in-house IT infrastructures. The new cloud computing technology will extend our in-house infrastructure to support surges in computational demand. It can also deliver GIS’ algorithms to researchers worldwide and enrich the institute’s contributions to global research collaborations.”

The computational laboratories at GIS develop algorithms that give scientists the ability to identify important signals in genomics data. With the use of different algorithms, a scientist can obtain more accurate and precise information important for study such as in cancer research.

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For media queries and clarifications, please contact:

Ms Winnie Lim  
Head, Office of Corporate Communications  
Genome Institute of Singapore, A\*STAR  
Tel: +65 6808 8013  
Email: [limcp2@gis.a-star.edu.sg](mailto:limcp2@gis.a-star.edu.sg)

Ms Ines Chin  
Head of PR & Corporate Relations, Asia Pacific  
BT Global Services  
Tel: +852 2532 3647  
Email: [ines.chin@bt.com](mailto:ines.chin@bt.com)

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### **About A\*STAR’s Genome Institute of Singapore**

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 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](http://www.gis.a-star.edu.sg)

## **About BT**

BT is one of the world's leading providers of communications services and solutions, serving customers in more than 170 countries. Its principal activities include the provision of networked IT services globally; local, national and international telecommunications services to its customers for use at home, at work and on the move; broadband and internet products and services and converged fixed/mobile products and services. BT consists principally of four lines of business: BT Global Services, BT Retail, BT Wholesale and Openreach.

For the year ended 31 March 2013, BT Group's reported revenue was £18,103m with reported profit before taxation of £2,315m.

British Telecommunications plc (BT) is a wholly-owned subsidiary of BT Group plc and encompasses virtually all businesses and assets of the BT Group. BT Group plc is listed on stock exchanges in London and New York.

For more information, visit [www.btplc.com](http://www.btplc.com)

## **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 fosters world-class scientific research and talent to drive economic growth and transform Singapore into a vibrant knowledge-based and innovation driven economy.

In line with its mission-oriented mandate, A\*STAR spearheads research and development in fields that are essential to growing Singapore's manufacturing sector and catalysing new growth industries. A\*STAR supports these economic clusters by providing intellectual, human and industrial capital to its partners in industry.

A\*STAR oversees 18 biomedical sciences and physical sciences and engineering research entities, located in Biopolis and Fusionopolis, as well as their vicinity. These two R&D hubs house a bustling and diverse community of local and international research scientists and engineers from A\*STAR's research entities as well as a growing number of corporate laboratories.

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