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GIS introduces customized cancer treatment

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The Genome Institute of Singapore (GIS) has launched a new laboratory that will help provide customised, cutting-edge treatment for cancer patients.

The lab, set up in partnership with local healthcare bioanalytic firm Invitrocue, will develop models of cancerous tumours using cells from patients, and utilise tech tools like artificial intelligence and data mining to trawl through genetic information found in cell models.

It will then identify novel biomarkers or genes linked to the illness to measure drug resistance and responses to treatment.

The lab's efforts will help provide a real-time status update for the treatment a patient is undergoing in a clinic. GIS comes under the Agency for Science, Technology and Research (A*Star).

The lab, called the GIS-IVQ Joint Laboratory, will be housed at the Genome building in Biopolis, and will carry out research into head and neck cancer, colorectal cancer, liver cancer, and triple-negative breast cancer, which makes up 10 per cent of all breast cancers in Singapore.

It will cost about $10 million to operate over the next few years. The lab will be the first in the Asia-Pacific region to focus on the integration of phenotypic data and genomic data.

It will employ up to 20 personnel in scientific and technical roles, and expects to fill, over the next two years, another 18 new positions that require cell biology and bioengineering expertise.