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ASIA EDITION

Epigenomic is the next target for cancer research'

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Singapore: Global pharmaceutical firm Roche and Garvan Institute of Medical Research have collaborated to develop new technologies for targeted epigenomic analysis using DNA sequencing.

Genomics is a rapidly evolving field with a focus on realizing the potential use of sequencing information in patient diagnosis and treatment. More recently, epigenetics, the heritable changes in gene expression that are not caused by changes in the DNA sequence or genetic code, but rather involve secondary chemical modifications of the DNA and the structural proteins in chromosomes, is being recognized as playing an important role in a host of biological processes and their role in cancer has been increasingly investigated.

Due to the myriad of epigenomic events responsible for influencing expression of genes in chromosomes, more advanced methods are being sought to accurately analyze these changes.

Under the terms of the two-year discovery agreement, Garvan Institute and Roche will collaborate to develop new methods to accurately analyze regions of the epigenome. The collaboration brings together the world-leading genomics expertise and infrastructure at the Garvan Institute and the best-in-class products for target enrichment from Roche NimbleGen, part of the Roche Sequencing Unit. As part of the agreement, the SeqCap Target Enrichment System from Roche will be used by scientists at the Garvan Institute to further their research in epigenetic influences on human diseases.

"This is an excellent example of collaboration between a leading edge company and research institute in the development of advanced technology for genetic analysis, which will empower more research into human biology and disease, and lead to many translational opportunities," said Professor John Mattick, executive director, Garvan Institute.

"In addition to our recent investments in sequencing platform technologies, our research team is working closely with key opinion leaders to advance sequencing applications of current and future technologies," said Mr Tom Albert, head-research at Roche's Sequencing Unit. "This collaboration with Garvan Institute illustrates the potential of SeqCap Target Enrichment products in additional sequencing applications for epigenetic research. This brings us closer to delivering sequencing applications to the clinic that offer truly differentiated medical value."