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Agilent, A*STAR to develop new analytical tools for glycoprotein testing

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Singapore: Agilent technologies recently announced collaboration with Singapore's Bioprocessing Technology Institute (BTI), a research institute of Singapore's Agency for Science, Technology and Research (A*STAR) to identify new analytical approaches to analyzing specific protein-linked sugar compounds.

Through the partnership the two organizations aim to address gaps in analytical testing methods and standards applied for drugs based on glycoproteins, which now form the majority of approved biopharmaceutical drugs.

Current analytical methods for characterizing glycans are time-consuming and difficult to deploy in commercial environments. They are also limited in their ability to detect and analyze minor glycan species.

Mr Nino Totino, general manager for Agilent's Life Sciences and Applied Markets Group in the South Asia, Pacific and Korea region, said, "This collaboration between Agilent and BTI addresses a critical need in the biopharmaceutical industry for a novel technology platform that can support detailed glycan analysis quickly and effectively in a high throughput environment."

He added that Agilent's industry-leading analytical technology platform can effectively partner with BTI's deep expertise in bioprocessing science and engineering, to work together on several projects that could lead to the creation of rigorous, standardized tests for drug safety and efficacy around the world.

The collaboration is expected to further develop Agilent's AssayMAP Bravo platform, a fully automated solution for high-throughput protein sample preparation and purification. Using this platform along with a mass spectrometer, BTI's researchers can apply their expertise in the production of therapeutic glycoproteins to develop optimized workflows and methods for the analysis of N- and O- linked glycans.

Dr Zhang Peiqing, research scientist at BTI and lead investigator for the projects under this collaboration said that bringing together expertise from Agilent and BTI will allow BTI to develop an approach for analysis of therapeutic glycoproteins that requires lesser user intervention while keeping to the high standards of analysis needed. Its success would be greatly beneficial to human health and the biologics industry, he added.