

World's largest commercial glycan array launched

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Griffith University's Institute for Glycomics has partnered with Dextra Laboratories to launch the world's largest commercial glycan array and bioanalytical service offering.

The array is among the most powerful tools to study molecular biology of diseases and will aid in the identification of new drug targets and more efficient diagnosis of disease.

All cells in the human body and in nature are covered with a dense layer of carbohydrate chains (or glycans).

Glycans are critical for the survival and healthy function of the body's cells and play roles in the life-cycle of abnormal or [diseased cells](#) like cancer cells. In fact, glycans are involved in almost every aspect of biology, from recognising viruses and bacteria, to blood clotting, to enabling sperm to penetrate an egg.

The Dextra glycan array product will enable a high-throughput, rapid and sensitive detection of those interactions and is among the most powerful tools to study [molecular biology](#) of diseases.

The array features over one hundred glycans discretely spotted onto a glass slide support, which was selected from Dextra's catalogue of highly diverse library of glycan structures.

Institute for Glycomics General Manager, Dr Chris Davis, said the

glycan array product manufactured onsite at Griffith University in collaboration with Dextra will be applicable to many areas of drug, vaccine and diagnostic discovery.

"The ability to manufacture quality commercial glycan-arrays on a large scale is set to transform the field of drug discovery. Large numbers of glycans can be screened rapidly, which will aid in the identification of new drug targets, ultimately leading to new and more efficacious treatments. Furthermore, glycan arrays can identify unique interactions between glycans and diseased cells, leading to better and more efficient diagnosis of disease."

Dr Davis said researchers are constantly pushing the boundaries of scientific advancements and require ever more precision and efficiency.

"This technology allows researchers to assay a large selection of glycan types in a single experiment," he said.

Dextra Laboratories Chief Scientific Officer, Dr Alex Weymouth-Wilson, said "For over 25 years Dextra has supplied the global glycobiology community with a large selection of glycan structures to support research in a wide range of biomedical applications. We are extremely pleased to be partnering with the Institute for Glycomics and supplying the [glycans](#) for this important initiative, as well as supporting novel approaches in the field of drug discovery".

State Minister for Science and Innovation The Hon. Leeanne Enoch MP said this latest partnership was the kind of collaborative approach to innovation in research the Palaszczuk Government was fostering through its Advance Queensland initiative.

"This collaboration is an integral part of the work at the Institute for Glycomics," Ms Enoch said.

"It will lead to the creation of a unique and world-leading centre in translational biomedical research for the discovery of 21st century drugs and vaccines that address existing and emerging diseases of global impact.

"Partnerships such as these are so important and that is why the Palaszczuk Government will continue to encourage collaboration through the Advance Queensland initiative."

Institute for Glycomics Director, Professor Mark von Itzstein, said he was thrilled to be aligned with an organisation that sees the potential of our research to transform the way medications are delivered to patients.

"This is the first of what we hope to be many partnerships with industry to leverage our research across a broad array of therapeutic applications and disease states."

"At the Institute for Glycomics we are leading innovation in medicine with promising new drugs and vaccines and solutions for to improve patient outcomes and reduce unnecessary healthcare complications."

Provided by Griffith University

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