Glasgow Technology Firm Collaborates with Leeds University

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GLASGOW-based technology business DeepMatter has been chosen to work with English universities on a project it is hoped could help speed the development of new vaccines and of anti-cancer drugs.

The digital chemistry specialist will supply technology that will make it easier for scientists and for machine learning (ML) and artificial intelligence (AI) applications to access and share data regarding experiments.

This is expected to have a big impact on the production of nanoparticles, which DeepMatter said are important components in ensuring the safe and effective drug delivery of new-generation (mRNA) vaccines and certain anti-cancer drugs.

mRNA vaccines work by stimulating the production of ‘spike’proteins that trigger an immune response to a virus. Examples include the Pfizer/BioNtech and Moderna Covid-19 vaccines.

Other vaccines use a modified form of another virus.

DeepMatter has signed a collaboration agreement with the University of Leeds under which it will supply its DigitalGlassware and DeviceX sensor technology. This will be used in a programme that Leeds is conducting with Sheffield university and pharmaceutical companies such as Somaserve.

DigitalGlassware can be used to make information on chemical processes available on the cloud as they happen. DeepMatter said DeviceX provides a new perspective on chemical reaction data.

Dr Nicholas Warren, Associate Professor at the University of Leeds, said: “The data captured by DigitalGlassware in real-time allows us to use ML and AI directed decisions contributing to self-optimising reactions helping us to build up an understanding of the processes and fine-tune reaction conditions leading to a scaled-up, commercially viable production of advanced nanoparticle products.”

Aim market-listed DeepMatter employs 17 people in Glasgow. It was spun out of the University of Glasgow by Lee Cronin in 2014. The social distancing measures introduced in response to the coronavirus crisis may have helped to boost interest in DeepMatter’s products.

The company grew sales by eight per cent in 2020, to £1.3 million, from £1.2m in the preceding year. It cut losses to £2.4m compared with £3m last time.

Read the original article on HeraldScotland.