

7 April 2021

DeepMatter Group plc
("DeepMatter", the "Company" or "the Group")

DeepMatter collaborates further with the University of Nottingham

DigitalGlassware® to be adopted by the University of Nottingham's School of Chemistry to support the development of machine learning models of sustainable chemistry

DeepMatter (AIM: DMTR), the AIM-quoted company focusing on digitising chemistry, is delighted to be collaborating again with the University of Nottingham's School of Chemistry, providing access to the DigitalGlassware® platform to support the University's sustainable chemistry initiatives. Separate to the project announced in February 2020, this collaboration will focus on the development of machine learning models of sustainable chemistry for researchers in the pharmaceutical sector and related chemical-based industries.

The project will be led by Professor Jonathan Hirst, Professor of Computational Chemistry & Royal Academy of Engineering Chair in Emerging Technologies, at the University's Faculty of Science, and will see scientists use DigitalGlassware® to develop machine learning techniques to help chemical engineers and chemists make their manufacturing processes more sustainable. In an extension to the project, Professor Hirst will work with scientists at the University of Nottingham's Centre for Sustainable Chemistry, to build interactive machine learning models of sustainability, effectively rules to follow, that can be used in the early discovery phase by researchers in the pharmaceutical sector when seeking to develop new drugs and related chemicals in a more sustainable manner.

A further project, run by Professor Ross Denton, will look at capturing data in the lab to help with forward prediction using computational modelling.

DigitalGlassware® is an integrated software, hardware and artificial intelligence enabled platform, which allows chemistry experiments to be accurately and systematically recorded, coded and entered into a shared data cloud allowing real-time and post-hoc analysis of the chemistry. The systematic structuring and recording of the data within DigitalGlassware® means that the platform can provide large and structured chemical reaction data sets, suitable for interrogation by machine learning techniques in a way not previously possible with smaller sets of manually collected and recorded data.

Mark Warne, CEO of DeepMatter Group, commented:

"Having worked with the University of Nottingham previously in their Digital Teaching Laboratory, we are delighted to be working with Jonathan in his challenge to design, make and ultimately manufacture new molecules in a more sustainable fashion. We recognise that significant changes are required in the way science is organised and conducted for there to be progress towards a more sustainable environment and we are pleased that our technology will play a role in developing the industry's sustainability. Jonathan, Ross and their teams will have access to our innovative cloud-based platform, DigitalGlassware®, allowing them to share and use the data with machine learning and AI technologies to provide unique perspectives."

Professor Jonathan Hirst, Professor of Computational Chemistry & Royal Academy of Engineering Chair in Emerging Technologies, Faculty of Science, the University of Nottingham added:

"At the moment, there are all kinds of inefficiencies, which are largely neglected in the search for new chemicals with specific desired properties. This project will provide machine learning tools for chemists and chemical engineers that will help them address two questions. How do we find greener synthetic routes to chemicals? And how do we identify greener target molecules from the outset? DigitalGlassware® is a great fit with this project as its machine learning and AI enabled approach to data delivers greater value and will help to revolutionise chemistry in both productivity gains and the discovery of new insights."

For more information, please contact:

DeepMatter Group plc

Mark Warne, Chief Executive Officer

Canaccord Genuity Limited (Nominated Advisor and Broker)

Bobbie Hilliam / Angelos Vlatakis

Alma PR

Caroline Forde / Harriet Jackson / Kieran Breheny / Faye Callow

Nottingham press contact

Jane Icke, Media Relations Manager for the Faculty of Science

T: 0141 548 8156

T: 020 7523 8000

T: 020 3405 0205

deepmatter@almapr.co.uk

T: 0115 74 86462

Jane.icke@nottingham.ac.uk

About DeepMatter Group plc

DeepMatter's long term strategy is to integrate chemistry with technology, thereby enabling a greater use of artificial intelligence and reaching a point where chemicals can be autonomously synthesised through robotics. It has developed and is commercialising data rich platform technologies, including software and laboratory hardware, focused on applications to improve R&D productivity and discovery using Machine Learning / Artificial Intelligence.

DeepMatter's technologies allow chemistry experiments to be accurately and systematically recorded, coded and entered into a shared data cloud. They are designed to enable chemists to work together effectively; sharing the details of their experiments from anywhere and in real-time, so that work is not needlessly duplicated, time and money wasted, and ultimately so new discoveries may be made faster.

Visit: www.deepmatter.io and follow @deepmattergroup

About the University of Nottingham

University of Nottingham academics can be interviewed for broadcast via our Media Hub, which offers a Globelynx fixed camera and ISDN line facilities at University Park campus. For further information please contact a member of the Communications team on +44 (0)115 951 5798, email pressoffice@nottingham.ac.uk or see the [Globelynx website](#) for how to register for this service.

For up to the minute media alerts, [follow us on Twitter](#)

*The University of Nottingham is a research-intensive university with a proud heritage, consistently ranked among the world's top 100. Studying at the University of Nottingham is a life-changing experience and we pride ourselves on unlocking the potential of our students. We have a pioneering spirit, expressed in the vision of our founder Sir Jesse Boot, which has seen us lead the way in establishing campuses in China and Malaysia - part of a globally connected network of education, research and industrial engagement. The University's state-of-the-art facilities and inclusive and disability sport provision is reflected in its status as *The Times* and *Sunday Times* Good University Guide 2021 Sports University of the Year. We are ranked eighth for research power in the UK according to REF 2014. We have six beacons of research excellence helping to transform lives and change the world; we are also a major employer and industry partner - locally and globally. Alongside Nottingham Trent University, we lead the Universities for Nottingham initiative, a pioneering collaboration which brings together the combined strength and civic missions of Nottingham's two world-class universities and is working with local communities and partners to aid recovery and renewal following the COVID-19 pandemic.*

Designed for the University of Nottingham the GlaxoSmithKline (GSK) Carbon Neutral Laboratories for Sustainable Chemistry, within the School of Chemistry Faculty of Science project is a world-first, earning the highest certifications under the BREEAM and LEED standards and driving impressive savings. The project will allow researchers to develop world-leading sustainable chemistry methodologies from its base on Jubilee Campus, serving as a hub to catalyse new collaborations with industry.

[More news...](#)