

Verdel Instruments secures £1 million equity funding from Longwall Ventures

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Verdel Instruments Limited (Verdel) has recently announced the close of its £1 million equity funding round from Longwall Ventures.

Verdel is a UK-based company pushing the boundaries of complex sample analysis using innovative Two-Dimensional Mass Spectrometry (2DMS) technology. The approach was originally developed for large, complex FT-ICR instruments, but Verdel has developed technology that transfers the technique onto commonly used, high throughput linear ion trap instruments. Verdel's technology is based on research by Professor Peter O'Connor at the University of Warwick.

The technology is platform agnostic meaning it can be applied across a wide range of linear ion trap, Q-ToF, and Quadrupole-containing instruments from all leading suppliers. The company is also developing its own instrument tailor made for high speed and high performance 2DMS analysis.

The funds raised in this round will enable Verdel to provide an analytical service lab for validation of the technology and begin sales of modified 2DMS capable instruments.

Robert Burch, CEO of Verdel said: *"2DMS is a key enabling technology that will bring true Data Independent Acquisition (DIA) into routine use in the lab. The key differentiator of the technology is its ability to unambiguously correlate each precursor ion with its fragments, which enables rapid and accurate molecule characterisation for complex samples. Data sets which currently take hours to days to analyse can now be processed in a few minutes. We expect this to be a game changer across the multitude of applications that routinely use Mass Spectrometry for analysing complex samples."*

Within the linear ion trap, the position of the analyte ions are modulated in and out of a 'fragmentation zone' created by a laser or electron beam. Fourier transform of the 2DMS data then relates each fragment ion to its respective precursor analyte ion, providing users with structural information on all the analytes present in the sample, without missing lower

abundance analytes. The inherent correlation of precursor ions and their fragments enables rapid and accurate characterisation.

A key benefit of 2DMS is that because the fragmentation of all ions is conducted simultaneously; all molecules are studied in parallel, not one by one like conventional tandem MS. This means truly data independent acquisition is achievable which is not limited by quadrupole isolation performance and overcomes contaminated tandem MS spectra.

David Denny, Partner at Longwall Ventures added: *“We are delighted to be backing a strong team with such a novel, disruptive approach. Access to the technology will be made available through a service laboratory and sales of modified instrument.”*

Dr Shum Prakash, Business Development Manager at Warwick Ventures commented: *“The combination of Warwick’s intellectual property, Verdel’s expertise and Longwall Ventures’ track record in scaling high-growth instrumentation businesses will enable 2DMS to deliver significant benefits for users in industry.”*

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About Verdel Instruments Limited

Verdel Instruments Limited is a UK-based company pushing the boundaries of Data Independent Acquisition (DIA) through the application of Two-Dimensional Mass Spectrometry (2DMS) techniques. Verdel’s goal is to develop, manufacture and sell optimised 2DMS instruments to end-users such as major players in the pharmaceutical, biotechnology and environmental industries. www.verdelinstruments.co.uk

About Longwall Ventures

Longwall Venture Partners LLP is a venture capital firm investing in innovative, UK-based, early stage companies in the healthcare, science and engineering sectors. Based on the Harwell Campus, located just south of Oxford, Longwall manages three funds: the £30m Oxford Technology ECF, the £40m Longwall Ventures ECF and the £75m Longwall Ventures 3 ECF, which it is currently investing. The Longwall portfolio comprises companies in a range of sectors including scientific instrumentation, next generation sequencing, next generation PV, cancer diagnostics and drug delivery systems, digital

health, satellite robotics, IoT security, radar and organ perfusion. Longwall Venture Partners LLP is authorised and regulated by the Financial Conduct Authority.

www.longwallventures.com

About Warwick Ventures

Warwick Ventures commercialises innovations produced from world-leading research at the University of Warwick. They offer advice and services to the University's innovators, to support them throughout the process of generating impact and a commercial return from their research, whilst they maintain their academic focus.

Warwick Ventures works closely with industry. Their specialist commercialisation managers provide businesses and investors access to the best of the University's Intellectual Property. They support technology development, license IP and create spin-out companies that retain close ties to the University's expertise.