

Quanterix Discovers Link Between Heart Attack-induced Hypoxia and Suspected Alzheimer's Disease Pathway

Single Molecule Technology First to Detect Increase in Alzheimer's Disease Plaque Peptide Following Cardiac Arrest

CAMBRIDGE, MA – April 12, 2011 – Quanterix Corporation, enabling a new generation of diagnostics based on revolutionary Single Molecule Array (SiMoA™) technology, today announced that significant elevations in blood levels of amyloid beta (A β) 42 peptide, a component of the plaques that are a hallmark of Alzheimer's disease, were detected in patients who experienced hypoxia (inadequate supply of oxygen to the brain) following cardiac arrest. The ability of SiMoA to measure extremely low abundance proteins has enabled discovery of a direct link between brain injury caused by hypoxia and increased A β 42 levels in blood. Results were presented on April 12 at the American Academy of Neurology Annual Meeting held April 9-16 in Honolulu, Hawaii.

The A β 42 testing was conducted at Quanterix on serum samples obtained from 26 resuscitated patients who were admitted to the Department of Surgical Sciences, Anaesthesia and Intensive Care, Uppsala University, Uppsala, Sweden. In the study, all 26 patients exhibited a significant elevation of A β 42 ranging from approximately 50% to over 30-fold. "These data are the first to show a correlation between hypoxic stress and the upregulation of A β 42 in humans. The findings also indicate that A β 42 levels after cardiac arrest correlate with long term cognitive outcome. The study highlights the potential of SiMoA to illuminate disease pathways involving proteins present at previously undetectable levels." said David Wilson, Ph.D., Senior Director, Product Development at Quanterix and lead author of the study.

"From an Alzheimer's perspective, these findings are very exciting," stated Kaj Blennow, M.D., Ph.D., study co-author and Professor in Clinical Neurochemistry at the University of Gothenburg, Sweden. "Mild ischemia due to arteriosclerosis is common in the elderly, and more common in Alzheimer's patients, and one possibility is that this will result in chronic upregulation of A β 42, leading to plaque deposits in the brain. These findings should stimulate further study into the relevance of mild, chronic ischemia as a trigger for the amyloid cascade in Alzheimer's disease pathogenesis."

“Our collaboration with Dr. Blennow is one of several ongoing partnerships under the Quanterix Translational Research Program (QTRP). Through QTRP, we intend to highlight the value of the company’s platform by uncovering surprising, and completely new discoveries made possible by the sensitivity of SiMoA,” said David Okrongly, Ph.D., President and Chief Executive Officer of Quanterix. “Our technology allows investigators to answer clinically important questions regarding a particular disease pathway or protein of interest that could not be addressed with existing technology. SiMoA continues to demonstrate its broad applicability and is well positioned to become a game-changing technology for both the in-vitro diagnostics and life science research markets.”

Poster Presentation Information:

Poster # P02.287

Serum Measurement of Hypoxia-Induced Amyloid Beta 1-42 Following Resuscitation from Cardiac Arrest

Location: Exhibit Hall 2, Hawaii Convention Center

Date/Time: Tuesday, April 12 [07:30 A.M. HST]

About Quanterix

Quanterix Corporation is developing its proprietary Single Molecule Array (SiMoA™) technology for the in vitro diagnostics and life science research markets. The digital nature of SiMoA yields unprecedented assay performance, stemming from a 1,000-fold improvement in sensitivity compared with today’s analog only technology. SiMoA will enable researchers in life science to validate novel, low abundance biomolecules from a single droplet of blood, leading to greater insight into disease detection, diagnosis, therapy selection and disease monitoring. Automated systems based on SiMoA are being developed to provide healthcare practitioners access to the most sensitive diagnostic test information, with greater reliability, broad dynamic range and increased cost effectiveness. Founded in 2007, the privately held Cambridge, Massachusetts-based company is backed by leading life science investors including ARCH Venture Partners, Bain Capital Ventures, and Flagship Ventures. For additional information, please visit www.quanterix.com.

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