

Quanterix

Researchers Use Quanterix's Simoa Technology to Detect Early Indicators of Potential Adverse Cardiovascular Outcomes

Using Simoa, researchers from Quanterix, Brigham and Women's Hospital and the Institute for Clinical and Experimental Medicine measured cardiac troponin in patients at much lower levels than ever before

Lexington, Mass. – August 26, 2015 — [Quanterix Corporation](#), a leader in high definition diagnostics, today announced that *The Journal of Clinical Chemistry* has published [a new study](#) in which its single molecule array technology (Simoa) was used to measure cardiac troponin I (cTnI) levels with both high analytical sensitivity and clinical specificity. In the study, performed in collaboration with Brigham and Women's Hospital in Boston and the Institute for Clinical and Experimental Medicine in Prague, Czech Republic, the researchers have shown that the technology was capable of reliably quantitating cTnI in all individuals studied, including patients with heart failure as well as healthy control subjects.

According to the [Institute of Medicine's report](#), approximately 395,000 people suffer cardiac arrest in their homes and other non-hospital settings every year and less than six percent of them survive. This is why detecting cardiac troponin levels at much earlier stages in a patient's disease progression is so imperative. With recent studies demonstrating that modest elevations of cTnI are predictive of future adverse events, the level of detection and sensitivity associated with Simoa is critical to cardiac diagnoses.

"An assay's ability to measure cTnI concentrations in all individuals, including healthy subjects, may prove beneficial in establishing individual cTnI baselines and monitor cTnI changes over time," said Petr Jarolim, MD, PhD, Medical Director, Brigham and Women's Hospital. "Although much research in this area is still needed, such monitoring may identify individuals at higher risk of adverse events and help to initiate early interventions such as more intense statin therapy or blood pressure control."

"This study is another huge step in the right direction of transitioning today's sick care to preventative healthcare," said Kevin Hrusovsky, CEO and Executive Chairman, Quanterix. "With the ability to detect cardiac troponin at much lower levels, providers can be mindful of at-risk patients significantly earlier in their disease progression. This gives them the insights necessary to more precisely instruct their patients on lifestyle and treatment options they may consider to decrease the probability of a future cardiac infarction."

Through the use of Simoa, researchers were able to leverage the very high sensitivity and full automation of the reported assay to make it suitable for measurement of cTnI concentrations in a healthy control group, while also establishing personalized reference intervals. They were also able to use the technology for detection of changes in cTnI concentrations after exercise stress testing, as well as for monitoring patients receiving cardiotoxic medications or heart transplant recipients for early signs of graft rejection in addition to other applications requiring high precision and sensitivity.

To read the full study published in the *Journal of Clinical Chemistry*, please visit: <http://www.clinchem.org/content/early/2015/08/13/clinchem.2015.242081.full.pdf+html>.

About Quanterix

Quanterix is a developer of ground-breaking tools in high definition diagnostics. Its Simoa platform uses single molecule measurements to access previously undetectable proteins. With this unprecedented

sensitivity and full automation, Simoa offers significant benefits to both research and clinical testing applications. Quanterix was established in 2007 and is located in Lexington, Massachusetts. To learn more about Quanterix and Simoa, please visit: www.quanterix.com.

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