

AB Sciex proteomics scientist wins prestigious award

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Singapore: Dr Christie Hunter, director of proteomics applications of AB Sciex, has received the 2013 Science and Technology Award by Human Proteome Organization (HUPO) for her contributions to the development and commercialization of a breakthrough approach for targeted proteomics.

Targeted proteomics is a standardized, biological research workflow that focuses on reproducibly quantifying a specific subset of proteins within a sample. It generates data that is vital for biologists to answer hypothesis-driven biological questions.

A decade ago, proteomics research was dominated by discovery workflows, which provided valuable information on a single sample but lacked the reproducibility to generate robust quantitation across a larger sample set. New innovation was needed at the time to move the field beyond simply producing large lists of identified proteins and toward providing highly quantitative answers.

This led to the development of a multiple reaction monitoring (MRM)-triggered, tandem mass spectrometry (MS/MS) workflow at AB Sciex to rapidly create high sensitivity MRM assays to target peptides that are unique to their associated proteins. This workflow was made possible by the combination of triple quadrupole and linear ion trap functionality in a single system called the AB Sciex QTrap System.

Dr Hunter, in collaboration with researcher Dr Leigh Anderson, the founder of the Plasma Proteome Institute and head of SISCAPA Assay Technologies, pioneered a workflow that applied MRM to the targeted quantification of proteins and peptides in plasma by mass spectrometry.