INTRODUCTION

Data independent acquisition (DIA) strategies have been used to increase the comprehensiveness of data collection while maintaining high quality data capture, and in particular high quality mass spectra. DIA provides an alternative to the traditional approach of targeted MS/MS fragmentation of a single protein, in order to perform large-scale quantitative proteomics experiments with solid reproducibility. In addition, DIA can provide high throughput capability for researchers, as the technology is now becoming a reality for industrialized proteomics laboratories.

The first strategy, tandem SWATH acquisition, was built using a SWATH acquisition coupled with microflow chromatography provides additional workflow options to researchers with higher throughput and robustness needs. The second strategy, parallel SWATH acquisition, obtained more data in less time, using 60 and 80 windows and a gain of about 15% proteins across the mass range in an LC timescale, transmitting populations of peptides for fragmentation, and high resolution MS and MS/MS spectra are acquired. Previous work has shown that using more narrow variable window SWATH acquisition coupled with microflow chromatography provides additional workflow options to researchers with higher throughput and robustness needs.

MATERIALS AND METHODS

This section describes the materials and methods used in the experiments. It includes details about the instruments, reagents, and protocols used, as well as any specific conditions or procedures that were necessary for obtaining the results reported in the paper.

RESULTS

This section presents the results of the experiments, including any statistical analyses or graphs that were used to support the conclusions. It includes a discussion of the implications of the results, as well as any limitations or potential sources of error.

CONCLUSIONS

This section summarizes the main findings of the study and their implications. It includes a discussion of the significance of the results, as well as any recommendations for future research.

TRADEMARKS/LICENSEING

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