

PATsmart™ ZipChip® System Testimonial

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Zachary D. Kelley

University of Kentucky

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The Research

My research focuses on the discovery and characterization of small molecules, specifically secondary plant metabolites. We work with a natural products lab in investigating sources for new potential therapeutics derived from wild and genetically modified plant species. Our assays consist of comparing vast populations of mutant plant extracts, with varying activity, to wild type and control species to determine the sources of activity. To do so, we employ high-resolution mass spectrometry coupled with powerful, efficient front-end separation methods and robust data processing solutions on the back-end.

Where the PATsmart™ ZipChip® System Plugs In

The implementation of the ZipChip System into our workflow has not only allowed for us to increase our output rate of the screening assays thanks to short run times, but also has provided increased separation efficiency to help us elucidate the small differences between our different populations.

The Outcome

Compared to HPLC and traditional “macro” CE approaches, we’ve observed better separation, increased baseline resolution, and effortless back-end data processing. We have found that the ZipChip System is the best suited tool for the analysis of our small, positively charged molecules of interest.

