

Microbial genotyping system, 9/13

Sagentia has completed initial alpha prototype development of the Resolution microbial genotyping system that it is developing for PathoGenetix.

Sagentia has worked with PathoGenetix for the past two years across the full product development life cycle, helping to combine two bread board systems into an intuitive, usable system with a smaller footprint.

The Resolution system is based on PathoGenetix's Genome Sequence Scanning (GSS) technology developed to detect biothreat pathogens in environmental samples. The technology is being developed for faster and more efficient pathogen identification in the food industry.

The GSS approach used in the Resolution system automates the process of isolating and analyzing single DNA molecules from complex mixtures, eliminating the need for a pure culture isolate, and it expedites the results by providing molecular serotype and strain type information for target bacteria in five hours.

Sagentia's involvement initially focused on concept validation and voice-of-the-customer analysis across worldwide sites. The output of this effort helped PathoGenetix's management to determine and define the company's go-to-market strategy. Subsequently, the focus has been on developing the architecture and delivering the electro-mechanical and electro-optical aspects that enable the GSS technology to be taken to market. This has included the detailed design and development of state-of-the-art custom optics, robotics, fluidics, pneumatics, and embedded and application software.

The Resolution system has the potential to identify the specific pathogen causing a foodborne illness outbreak, which is a critical step in defining the extent of the outbreak, determining the food involved, finding the source of the contamination, and defining the scope of a product recall.

[Sagentia](#), 617-896-0213 / [PathoGenetix](#), 781-937-5550