A smarter approach to LC-MS sample prep

SPEware is the latest member of the Tecan Group, providing advanced sample preparation solutions for laboratories performing mass spectrometry analysis. The company combines its proprietary smart chemistry consumables and positive pressure processors with an in-depth understanding of customers' needs to help them achieve efficient laboratory workflows.



Jim Leontis and Phil Dimson, SPEware

Routine analysis by mass spectrometry (MS) is now commonplace in a variety of sectors, including toxicology, drug discovery, forensics and hospital medicine. Despite this, sample clean-up and pre-analytical processing is still the major challenge for these laboratories, as traditional liquid-liquid extractions are time consuming, difficult to automate and don't provide sufficient selectivity for more complex samples, creating a significant bottleneck. To overcome these issues, many laboratories have turned to solid phase extraction (SPE) techniques, which not only represent a more time- and cost-effective approach to sample clean-up, they are also more automation friendly, helping to increase throughput and improve reproducibility. However, a majority of companies

and support of SPE consumables from a range of suppliers. Today it has grown into a complete SPE solution provider, as founder and CEO Phil Dimson explained: "We started out very simply, working as a distributor and demonstrating the benefits of SPE sample prep to our customers. We sold consumables from a variety of sources, and used our knowledge and understanding to show customers how SPE-based sample clean-up could increase the quality and reproducibility of their data, as well as reduce maintenance requirements for expensive MS instrumentation. As the popularity of this technology grew, we found that more and more of our customers were not only looking to improve their data, they also wanted

This application-focused approach is completely unique in the market, providing customers with a one-stop shop to support everything from sample reception to mass spec analysis.

offering SPE sample preparation solutions simply provide the chemistry and consumables required to perform the extraction, with little consideration of how this can be practically implemented in the laboratory workflow or the impact of varying sample processing parameters on downstream analytical results.

SPEware Corporation, founded in 1997, was originally created to serve the emerging MS sample preparation market, offering independent supply help streamlining their workflows. More laboratories were using MS to test more analytes, and so they needed systems capable of processing hundreds of samples a day, which naturally led to automation. We launched our first automated processor in 2000, and this proved to be the big breakthrough for us, as nobody else was offering a combination of chemistry, automation and workflow expertise."

Jim Leontis, Director of Sales, took up the story: "Our understanding of this



synergy between efficient workflows and clean analytical results has been the foundation of our growth, and today we offer a wide range of solutions that combine proprietary SPE consumables – using our high performance CEREX® microparticulate chemistry – with dedicated automated processors and application support. This application-focused approach is completely unique in the market, providing customers with a one-stop shop to support everything from sample reception to mass spec analysis."

"Our technical expertise is what really sets SPEware apart. We have a dedicated laboratory with a team of application scientists – a mix of automation specialists, chemists and mass spectrometry experts – who work directly with customers to assist them in tailoring our solutions to their exact workflow needs. While it may be possible for a customer to perform a lot of this work themselves, our in-depth understanding of their processes can make a big difference – providing that last five percent that helps them to achieve reliable, high quality sample preparation and reproducible results."

Phil continued: "Until now, we have only been able to offer the benefits of this comprehensive service to the North American market, and so becoming part of the Tecan Group was a logical next step for the business. By combining our smart consumables and existing automated processors with Tecan's liquid handling and workflow automation expertise and worldwide support network, we now have the opportunity to offer complete SPE sample preparation solutions to the global market. Integration of our consumables and processing options onto the company's liquid handling workstations will not only enable us to provide truly turnkey solutions - including all the hardware, software, consumables and technical support required for successful automation of MS sample preparation - it will also allow us to further increase throughput and better serve highly regulated environments."



David Martyr, CEO of Tecan, commented: "We are excited to welcome SPEware to the Tecan Group. The company's range of market-leading smart consumables and automated processors is a natural fit for our advanced liquid handling platforms, offering customers a real advantage for MS sample prep. This will allow us to provide fully integrated solutions that offer exceptional time- and cost-savings for laboratories large and small, anywhere in the world."



SPEware can provide assistance and advice on every step of the MS workflow

To find out more about the SPEware range of sample preparation products, visit www.spewarecorporation.com