

Consistency for a changing market

PerkinElmer Healthcare Diagnostics (Shanghai) Co develops and manufactures instruments for the processing and analysis of clinical samples in hospital laboratories across China. A pioneer of time-resolved fluorescence techniques in this market, the company prides itself on creating cutting-edge automated solutions to address unmet needs in infectious disease diagnostics.

The *in vitro* diagnostics (IVD) market has very specific needs when it comes to laboratory automation, requiring highly integrated solutions that are both robust and easy to use. Unlike the life sciences research sector – where flexibility and adaptability are often essential to guarantee productivity as project needs change – automated systems for clinical laboratories should offer highly reproducible results over several years, while requiring only minimal maintenance and user expertise. The use of high quality OEM components is therefore key to the long-term success of IVD instruments, providing consistent performance over time. However, it is just as important to work with knowledgeable OEM partners

who understand the demands of the diagnostics sector, ensuring ongoing support and allowing the development of new solutions to address an ever-changing market.

PerkinElmer Healthcare Diagnostics (Shanghai) Co – formerly Shanghai Sym-Bio Life Science Co – is a leading provider of diagnostics instruments and related reagents for Chinese hospitals. Originally founded to develop and commercialize novel time-resolved fluorescence (TRF) techniques, the company is now a major innovator in the local IVD market, with a dedicated R&D center in Taicang, Jiangsu Province. Torres Cai, Instrument Sourcing Supervisor, commented: “Our Taicang

facility develops and manufactures a range of Sym-Bio brand IVD instruments for use in hospitals across China, focusing primarily on the detection of infectious diseases. Combining our proprietary TRF immunoassay technologies with advanced laboratory automation, our aim is to provide convenient and cost-effective testing for a range of diseases, many of which are not served by other solutions on the market.”

When developing its EasyCuta 1260 automatic time-resolved fluorescence analyzer, the company chose to partner with Tecan, taking advantage of the company’s liquid handling expertise and strong local presence to ensure the success of the project. Cai explained: “Precise transfer of samples and reagents is crucial for the accuracy and reproducibility of immunoassay results, making syringe pumps the most important component in the EasyCuta 1260. When selecting an OEM supplier, our product developers looked not only for the best technical solution, but also for a very high level of technical and application support. Staff from Tecan’s local organization, based in nearby Shanghai, were very responsive and knowledgeable, giving us confidence in both the solutions and support on offer.”

“After discussing the needs of our instrument with the Tecan team, we chose the Cavro® XLP syringe pump for the EasyCuta 1260 project. Each instrument contains six individual XLP pumps which are required to



Tecan Cavro components are essential to the consistent and reliable operation of the EasyCuta instruments

perform advanced liquid handling reliably for long periods, so it was crucial that our engineers understood how to maximize long-term performance. We received very good support from Tecan during instrument development and validation; the company provided periodic training for our engineers to ensure we could optimize instrument performance and provide appropriate maintenance schedules, and its application experts were always available to answer any questions we had. Since its launch in 2013, we have installed EasyCuta 1260 platforms in over 400 hospitals, and we have been very happy with the performance of both the instrument and the Cavro pumps.”

In 2014, PerkinElmer began developing a second system - the EasyCuta MiNi - to provide a lower throughput solution for smaller hospitals. “Based on feedback from existing EasyCuta 1260 customers, we took this opportunity to enhance the instrument workflow and shorten turnaround times,” Cai continued. “In addition to modifying the assay method slightly, we chose to use the Cavro ADP (Air Displacement Pipettor) to allow faster liquid transfers, helping to reduce the overall processing time. Working with Tecan made it very straightforward to transfer our method from syringe pumps to pipettor technology, and this is one of the benefits of working with a leading OEM supplier with a diverse product portfolio.”

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To find out more about Tecan Cavro components, visit www.tecan.com/components

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