

Pooling resources

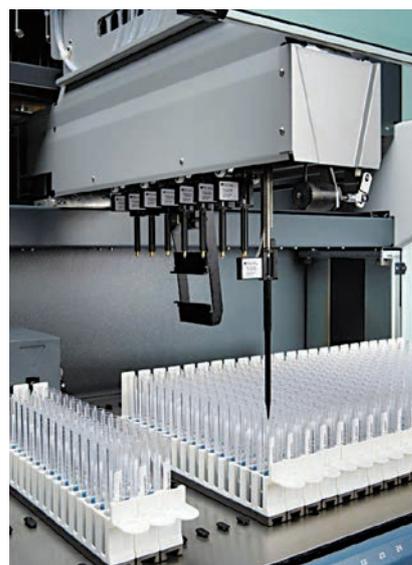
Novartis has a long history of working with Tecan's Partnering Business for the development of automated workstations for blood banking applications. The latest Procleix SP® System offers a flexible, high throughput solution allowing sample pooling and archiving on a single instrument.

Novartis Diagnostics' Procleix® portfolio of nucleic acid testing (NAT) blood screening instruments has been providing reliable laboratory automation to blood banking facilities around the world for nearly 15 years. Designed to offer walkaway automation for blood screening applications – including pooling, testing and archiving – these instruments eliminate the need for time-consuming manual processing by providing proven and reliable liquid handling and analysis.

Pooling blood samples prior to testing – aliquoting multiple patient samples into a single master pool tube for infectious disease testing – is performed in many blood banks, and is one of the routine applications that has benefitted from laboratory automation. In addition to pooling samples for testing, many laboratories also archive aliquots of each individual patient sample in case further testing is required, and Novartis

wanted to offer customers a single platform that combined both pooling and archiving activities. Bradley Sherrill, Director of Global Marketing at Novartis, explained: "We wanted an advanced pooling instrument that would allow laboratories to migrate from time-consuming and laborious manual pipetting processes to a highly automated system that could perform all the pipetting and sample manipulations, as well as offering full process monitoring and software control."

"Our partnership with Tecan – a company well known for producing state-of-the-art liquid handling platforms – goes back to one of the first automated pipetting systems, the Tecan Genesis RSP 150/8, and extends to our most recent pipetting and archiving system, the Procleix SP System. The technology developed in partnership with Tecan allows blood screening laboratories to choose between 4-, 8- or 16-sample master pool



The instrument's 8-channel Liquid Handling Arm offers efficient throughput



The Procleix SP combines blood pooling and archiving on a single instrument

formats, and provides end-to-end automation of the pooling and archiving process; operators can simply load the racks of sample tubes onto the deck, and the instrument and software-guided interface take care of nearly everything else. Newer platforms, such as the Procleix SP, use Tecan's Pressure Monitored Pipetting (PMP™) system to provide real-time error detection and further improve process security. We also use Tecan's high quality disposable tips to ensure optimized instrument performance, and these have been well received by our customers."

Bradley continued: "Direct control of the platform is handled by the Tecan software, but we have developed the user interface in house, allowing the pooling workstations to integrate seamlessly with other instruments from the Procleix portfolio. This approach allows us to draw on our existing software validation and expertise as a leading blood screening company, and on Tecan's knowledge and experience in laboratory automation to present a comprehensive product offering to our customers."

“Tecan is a great instrument development and technical partner.”

“We provide all of the operator training, customer support and on-site maintenance of instruments ourselves, but we rely on our close relationship with Tecan’s technical personnel for their liquid handling and instrument expertise. From the clients’ perspective it’s a single service, but in the background it’s a real partnership, so working with a company that has a global reach is obviously very important. In my own experience, this approach has been very successful; Tecan is a great instrument development and technical partner, and the Company’s staff have always been very responsive to requests for information or assistance. Overall we are very happy with our relationship with Tecan. It is certainly a long-term partnership, and we look forward to developing further instruments with Tecan in the future,” Bradley concluded.

To find out more on Tecan’s Partnering Business, go to www.tecan.com/oem

To learn more about Novartis Diagnostics’ Procleix portfolio, visit www.novartisdiagnostics.com/products/instruments

The Procleix SP System is not available for commercial sale in the United States. Performance characteristics have not been evaluated by the FDA. Approvals and commercial availability for the Procleix SP vary by region.



Use of disposable tips virtually eliminates the risk of cross-contamination



Dr Klaus Lun, Executive Vice President, Head of Corporate Development

Leading the debate

The laboratory automation sector is changing, with an ever-increasing focus on complete solutions to simplify individual protocols and streamline entire applications. Instrument manufacturers need to move beyond the traditional boundaries of hardware and software, exploring new ways of innovating customer workflows.

Despite the many and varied applications of liquid handling workstations, there are a few key processes that are routinely performed across multiple disciplines, and it is these ‘common’ tasks that can be best served by the development of more intelligent automation solutions. The creation of truly complete solutions – incorporating hardware, software, consumables and reagents in a single package – represents a real benefit for customers, adding value in terms of ease of use, process security and reproducibility. However, simply packaging together the existing components that customers can source from various individual suppliers is not enough.

Instrument manufacturers need to really look at the liquid handling tasks that are being commonly performed in life science laboratories around the world, and offer customers a better, faster and more convenient way of achieving their goals. The recently launched AC Extraction Plate™ is an example of how a ‘smart’ consumable can benefit the end user, combining Tecan’s liquid handling expertise with a novel extraction device to offer a genuine alternative to laborious sample preparation. The key to achieving this kind of progress is to really understand what customers are using their automated systems for, and working with expert partners to develop new solutions to make those applications easier.

To share your ideas of how Tecan can streamline your workflow, e-mail talk@tecan.com