

The Genesis FE500™

taking control of sample preparation

The department of clinical chemistry at Uppsala University Hospital in Sweden is one of several high throughput laboratories to rely on Tecan's Genesis FE500™ front-end, pre-analytical system for dealing with large numbers of routine clinical samples. Like any large teaching hospital, Uppsala receives more than 4000 blood samples a day for clinical chemistry tests. The department began with just one Genesis FE500 but the workload has steadily increased over the last five years and there are now three instruments, all configured to prepare samples for as many as 650 clinical chemistry parameters, including allergens for allergy profiles.

The Genesis FE500 combines pre-analytical functions including pre-sorting, centrifugation, volume check, decapping, secondary tube labeling, aliquoting and destination sorting into assorted sample and analyzer racks, all together on a small footprint instrument. Before the Genesis FE500 systems were in place in Uppsala, several staff members were dedicated entirely to sample preparation and the whole procedure was completely open to inaccuracy and human error.

As Åke Jansson, laboratory engineer in the department, explained: "The problem of human error is just taken out of the

equation now and the increase in our workload is interesting. We now have the capacity to handle huge numbers of samples and have become a central input for the entire hospital. With the throughput we have today, it would be impossible to handle so many tubes manually, with aliquoting, secondary tube labeling, and everything else that is involved."

"We looked around at other front-end instruments available before we bought each Genesis FE500 system and the Tecan system's flexibility was always the outstanding feature for us. The Genesis FE500 gives us total flexibility by

transferring samples into tubes, including directly into the sample racks for our main clinical chemistry analyzers, two ARCHITECT ci8200® systems from Abbott Diagnostics and one Modular E170 from Roche AG. At the outset it was very easy to configure once we were fully aware of our laboratory's patterns of work and organization and, once set, the Genesis FE500 simply gets on with everything, virtually unattended."

ARCHITECT ci8200 is a registered trademark of Abbott Laboratories

