

High throughput EIAs with Freedom EVO[®] Clinical

Laboratory services company synlab offers analysis of human, animal and environmental samples and, at its Augsburg site in Germany, it has chosen two Freedom EVO[®] Clinical workstations in combination with the BEP[®] III system from Siemens to process an enormous throughput of EIAs to diagnose infectious diseases.



Close-up of one of the Freedom EVO 150 Clinical workstations

Clinical analyses are performed in 55 synlab locations in Germany and 18 abroad by competent teams of doctors, scientists, engineers and skilled laboratory personnel, who ensure that the analyses are carried out to the highest standards. At the Augsburg site in Germany, the serology department performs routine immunology assays of serum and liquor samples. The laboratory runs more than 124,000 EIAs a year and uses two Freedom EVO 150 Clinical workstations to pre-process the assays for analysis on the Siemens BEP[®] III system, an automated microplate processor.



(left to right) Petra Müller, Manuela Strack and Dr Ulrike Hauser, of the Augsburg serology department

Using Novagnost[®] and Enzygnost[®] tests from Siemens, a wide variety of assays can be run simultaneously on the Freedom EVO Clinical, using a different strip on the microplate for each assay. Nearly 50 different parameters have been implemented for various infectious agents, including Epstein-Barr virus, *Herpes simplex virus*, measles, adenovirus, influenza, *Helicobacter pylori*, periodontitis, *Chlamydia*, *Candida* and *Mycoplasma*.

"In collaboration with Siemens, specific software features were implemented in Freedom EVOLution™ 1.9 to accommodate the Siemens tests and allow data to be transferred smoothly to the BEP[®] III system," elaborated Caroline Huber, Tecan's product manager for the Freedom EVO Clinical. "Liquor samples require special pre-dilution steps, for which the Freedom EVOLution 1.9 has also been programmed to process appropriately."

The Freedom EVO Clinical workstations have an integrated liquid handling (LiHa) arm with four channels using standard tips, and are also equipped with a wash station and PosID™3. The automated platforms process samples from 3 ml and 10 ml tubes to perform the assays in 96-well strip plates.

The Augsburg serology department is led by Dr Ulrike Hauser and senior technicians Petra Müller and Manuela Strack. "We have already been using automated systems for 10 years in our laboratory, but the old system was getting outdated and its capacity was becoming insufficient for our needs," explained Manuela. "We chose the Freedom EVO because of its flexibility, which gives it the ability to adapt to our many different test formats. The Freedom EVOLution 1.9 software is easy to use and has a range of valuable features, allowing us to choose from a variety of assays for each patient sample. The graphic user interface makes handling very simple, and the workflow can be clearly arranged and easily followed. Fully automated sample processing and high throughputs were essential requirements so, after the set-up issues were resolved, the Freedom EVO Clinical workstations have been particularly beneficial to the laboratory."

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For more information on Tecan's Freedom EVO clinical, visit www.tecan.com/freedomevoclinical