

True high throughput compound management for Galderma

French pharmaceutical company Galderma specialises in the development of drugs for a variety of dermatological complaints, including acne, rosacea and psoriasis, and has chosen a customized Freedom EVO® 200 liquid handling workstation to manage its huge library of compounds used in high throughput screening.



Dr Bernard Schoot

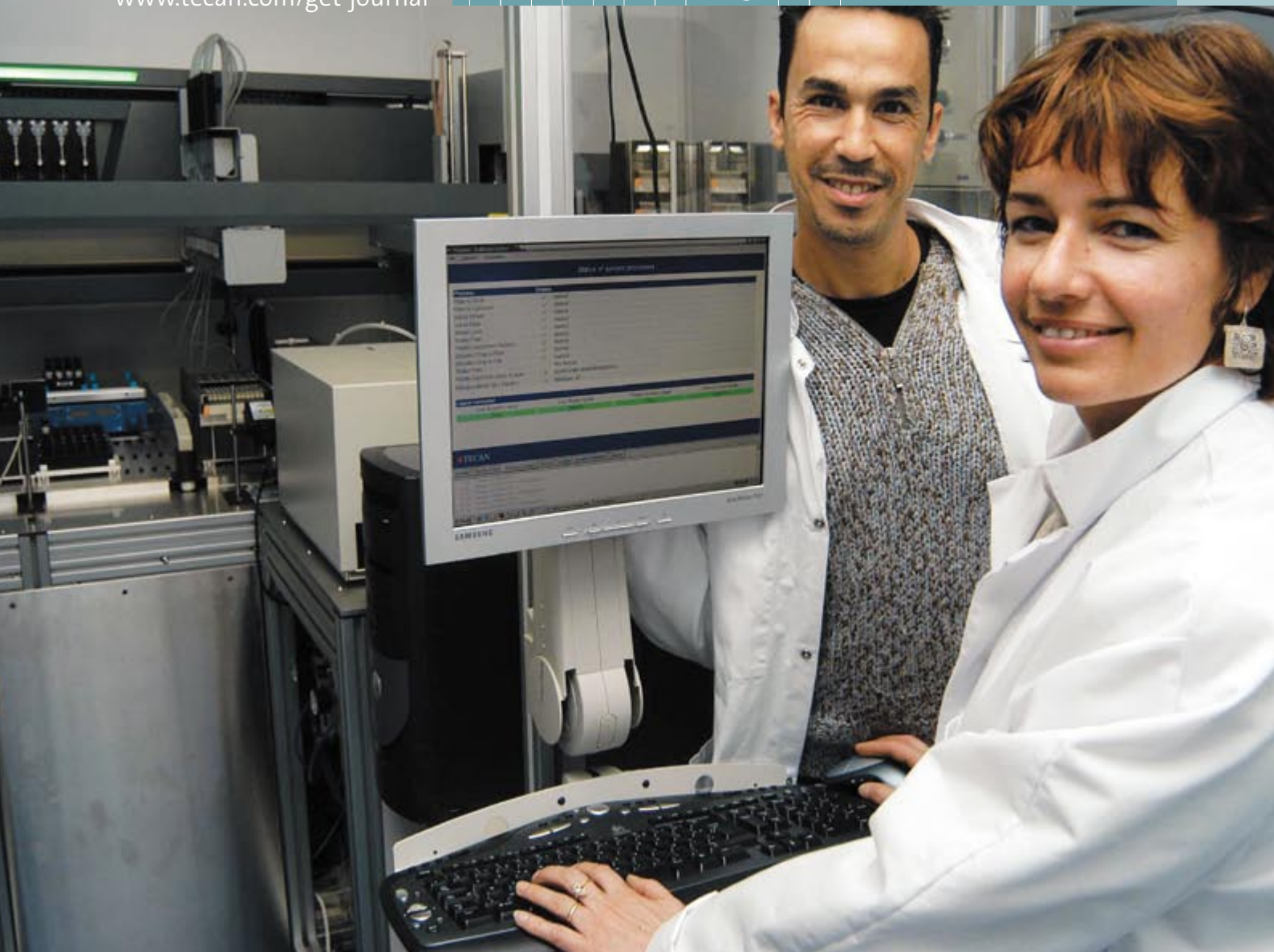
The Structural Research Group at Galderma, headed by Dr Bernard Schoot, carries out drug development research using various proteomics methods, like protein crystallography, as well as techniques such as NMR for protein ligand interaction studies. "Within our department we have a Compound Management Group which is responsible for the registration, storage and distribution of all compounds that are produced and analyzed in our research," explained Bernard. "We store compounds as both powder and in solution in our global storage platform, and we needed a compact, fully integrated workstation to maintain a complete library of all the compounds produced, analyzed and purchased by Galderma. From the start we wanted to configure the workstation to be dedicated to certain operations. Catherine Comino and Hamid Ait-Oufkir from our Compound Management Group carefully studied and defined all our workflows so we could accurately determine the functions and specifications required of the workstation. This information was then passed on to Tecan and the system was customized accordingly for us by reprogramming the software. As a result, we need to vary only a limited number of parameters to be able to do anything we want to do."

"Our Tecan platform is involved in the very early stages of drug development; preparing, storing and distributing the samples that are used for high throughput screening," Bernard continued. "We chose a Freedom EVO 200 workstation, integrated with one

liquid handling (LiHa) arm, one robotic manipulator (RoMa) arm and a Z8 pipetting arm, a balance, barcode readers for plates and vials, and a capping and decapping station. Plates can be loaded into a hotel and labeled with a barcode, and individual tubes within the plates also have a code that can be read from the bottom. The barcodes give access to all the information about the compounds, as well as the location of the tubes and the amount of the sample. All data are kept in the inventory in our laboratory information management system."

"Importantly, Tecan was able to satisfy a special requirement for compound storage in our laboratory, whereby the capped tubes are flushed with dry nitrogen before anything is stored in them and then, once the tubes are closed, they are not opened again until required," continued Bernard. "This is because the dimethyl sulfoxide (DMSO) we use as the solvent is hygroscopic, and some of the products we store are sensitive to oxygen. This was a significant reason for choosing Tecan, together with the fact that we had access to a working model for testing." Hamid, the technician responsible for the storage platforms, added: "Tecan was the only company we spoke to that was able to perform the whole of our workflow on one machine, which was very important because it made more efficient use of our bench space in the lab."

Catherine also commented: "We visited the factory several times to see the working model and, even after we chose Tecan, we continued thorough



(left to right) Hamid Ait-Oufkir and Catherine Comino of the Structural Research Group at Galderma

discussions about the workflow and the exact requirements we wanted from the instrument. At this time, technical support from Tecan's local team in France was very helpful."

Bernard is impressed with the throughput and capabilities of the Freedom EVO workstation: "From plates with stock solutions, we can make a double copy of 1,600 samples within 24 hours. We can also weigh compounds. Each capped, barcoded vial is tared on the workstation and, once compounds are analyzed, they are delivered to us in those vials. The vials are weighed again and then automatically, depending on what has been requested, the workstation dissolves and distributes the compounds into storage vials and tubes as necessary, after which the workstation produces

a report. All this information is included in the informatics of the system and you can automatically download it into an inventory, from which researchers can request the products. Everything is completely integrated now, but before we had the automated platform it would have taken a long time to do anything; in fact, we couldn't do what we do now." Hamid concluded: "We are happy with the Freedom EVO platform; the system is good, and we're very happy with its performance."

Scientific instrumentation. Not for use in human clinical or in vitro diagnostic procedures.

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

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