

A turnkey solution for forensic identification

Genia Geo has chosen Tecan's HID EVOLution™ system as part of its comprehensive forensic identification services for governments around the world. This one-stop solution encompasses everything from designing and building laboratories to training crime scene investigators and judges, and revolves around Tecan and Life Technologies' fully validated, walkaway set-up for robust genetic identification.



Dr Carlos Azambuja, President of GENIA

GENIA, based in Montevideo, Uruguay, has been at the forefront of genetic testing in Latin America for over 20 years. Originally specializing in the health and agricultural markets, the GENIA group created Genia Geo in 2012 to establish forensic identification services for governments around the world. Dr Carlos Azambuja, President of GENIA, explained: "Genia Geo was set up to provide government entities, such as Ministries of the Interior or of Justice, with everything necessary to implement a national system for DNA-based forensic identification. This includes not only the design, construction and furnishing of genetic sequencing laboratories, but also all of the ancillary services – such as local forensic investigation units, national sample logistics systems

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Alejandra Torres is one of the scientists benefitting from Tecan's automated solutions

and DNA databases – as well as training of staff at every level, from the police officers collecting the evidence, right through to the magistrates who will be presented with the results in a court."

"The first project of this type is currently being implemented in Venezuela, working with the Ministry of Science and Technology and the CICPC (Cuerpo de Investigaciones Científicas Penales y Criminalísticas) to create a national system for DNA-based human identification as part of the Bolívar-Artigas agreement signed between the Uruguayan and Venezuelan governments. Working with internationally renowned Uruguayan architects Carlos Ott and Carlos Ponce de León, we are building three DNA processing facilities; a high throughput center at the IDEA Institute in Caracas – which will be processing reference samples

from police personnel and prisoners, as well as researching new forensics technologies – and two regional laboratories for crime scene analysis in Guarenas and Barinas. We looked at the available options for sample processing and sequencing, and decided that a completely integrated solution was the best match for our customers' needs."

Genia Geo chose Tecan's HID EVOLution system for all three laboratories. This set-up combines a Freedom EVO® workstation with an Applied Biosystems® 7500 Real-Time PCR System and 3130x1 Genetic Analyzer (Life Technologies), offering a validated automation solution that has been optimized for human identification applications. Carlos continued: "Although we did not have previous experience with Tecan equipment, the HID EVOLution represented a fully integrated, walkaway processing system that

could help to simplify the laboratory workflow and improve process security. We were able to visit several other laboratories using the HID EVOLution set-up, and they were very positive about both the equipment and the Tecan service. The local distributor – Tagaca – and Tecan’s regional representatives were also extremely supportive from the outset, so we felt very comfortable with our choice.”

“Tecan was also instrumental in designing our pilot laboratory here in Uruguay,” Carlos added. “User training is an important part of the service we provide, and so we needed a facility that would allow us to teach the Venezuelan technicians to use the equipment. It is very important that they are trained on the same equipment they will be faced with in their own laboratories, so creating the pilot center here in Montevideo was the perfect solution. It is currently acting primarily as a training laboratory for our customers’ staff, and will give us the ability to support the work being performed at their sites once they go live, troubleshooting any issues

they might have. The other benefit of having the pilot facility is that it allows us to develop research collaborations into innovative forensics technologies which may be implemented in the future, such as Ion Torrent™ sequencing.”

“We are still in the early phases of the project, so are not really using these systems to their full potential yet, but so far the instruments have been very easy to use. The software is user friendly, and we have received very good support from the Tecan team to help integrate the systems into our complete laboratory workflow. We are now looking to provide the same comprehensive service in several other countries, and Tecan will certainly be at the forefront of our minds for these projects,” Carlos concluded.

To find out more on Tecan’s forensics solutions, visit www.tecan.com/forensics

To learn more about Genia Geo, go to www.geniageo.com



Left to right: Juan Martín Marqués, Alejandra Torres and Leticia Repetto with the HID EVOLution