

Sharing a successful formula

Tecan's Freedom EVO® platform is proving a valuable resource in the shared laboratory facilities of Vet Food Agro Diagnostics and Asia-Pacific Special Nutrients in Malaysia.



The Freedom EVO system is used extensively by both VFAD and APSN staff.

Vet Food Agro Diagnostics (M) Sdn Bhd (VFAD) and Asia-Pacific Special Nutrients Sdn Bhd (APSN) are sister companies based in Malaysia. APSN is a biotechnology R&D company specializing in animal health, food safety and agriculture. These areas of expertise are mirrored in sister company VFAD, a service laboratory which provides a wide range of screening and testing services to the veterinary, food, agriculture and agro-based industries across Southeast Asia. Both companies work very closely with local government authorities, such as the Malaysian Department of Veterinary Services (DVS), on the control and prevention of infectious animal diseases, as well as a variety of food safety programs. This work has led to numerous awards and recognitions, as well as development of a number of patent-pending inventions.

The closely aligned interests of the two companies have allowed them to pool resources at their shared facility in Petaling Jaya, Malaysia, including the purchase of a Freedom EVO workstation for use by both companies. Dr Tan Do Yew oversees operation of the Freedom EVO platform,

and explained how this joint resource is used: "Sharing laboratory space and equipment allows both companies to optimize their investment in state-of-the-art scientific equipment, although this arrangement has its own unique set of complications. Automation is an obvious strategy to help cope with our high throughput demands, improving the laboratory's workflow by allowing staff to perform multiple tasks in parallel. However, the complex and contrasting needs of contract testing services and R&D require a highly flexible automated solution. We first purchased our Freedom EVO workstation two years ago, after discussing our varied requirements with several manufacturers. Tecan was the only company able to provide the high level of flexibility we required, particularly the ability to integrate a variety of other instruments onto the worktable. In addition to liquid handling (LiHa) and robotic manipulator (RoMa) arms, our system has a Sunrise™ absorbance reader and a HydroFlex™ plate washer, as well as several plate hotels to increase the walkaway time for sample processing."



“Since installation, the system has been heavily used by both companies,” Dr Tan continued. “It is predominantly used by APSN for repetitive research activities such as large compound screening trials, which can be run overnight for increased productivity. In contrast, VFAD runs a broad range of assays on the platform, including numerous ELISA tests, such as the Synbiotics® range of kits for veterinary serological testing, and other commercial assays.”

“We also perform a melamine assay, for which we have seen a large increase in demand since recent worldwide media

coverage,” added Mr Yip Jin Suey, the VFAD chemist responsible for automation of melamine testing. “This ELISA has been specifically developed for detection of melamine contamination in wheat gluten, pet food, milk and milk powder, and offers sensitivity comparable to LC-MS/MS testing. The kit manufacturer recommends that only 20 samples are processed per batch, due to the critical time constraints of the assay. However, the speed and efficiency of the automated protocol has allowed us to double the number of samples that can be processed per run, without loss of sensitivity.”

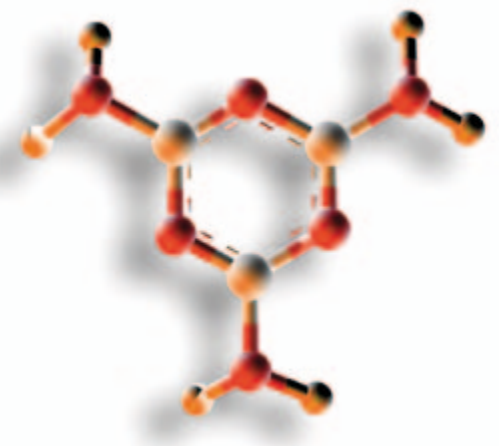
“Staff from both companies find the Freedom EVO workstation very easy to operate, and this has encouraged much wider use of the platform than we might have expected. The Freedom EVOware® control software makes it very easy for users to develop their own protocols and scripts, and we now routinely have several different programs scheduled to run concurrently.”

To find out more on Tecan’s Veterinary and Food Analysis solutions, visit www.tecan.com/veterinary www.tecan.com/food

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Automation allows multiple tasks to be performed in parallel, improving throughput.



Molecular structure of melamine.