

The world's largest custom monoclonal antibody production facility opens at Monash University

The partnership between Tecan and the Monash Antibody Technologies Facility has come to fruition with the opening of the new state-of-the-art custom monoclonal antibody production system at Monash University in Victoria, Australia. This unique facility has the capacity to produce thousands of different monoclonal antibodies per year for use in research, diagnostics and therapeutic applications.

The new Monash Antibody Technologies Facility had its grand opening on August 6th 2008, attended by a number of important dignitaries from the Australian government, academia and the life science industry. The two hundred square meter facility houses cutting edge equipment, including 10 Freedom EVO® liquid handling workstations, and,



Mark Dreyfus, Alan Sawyer and Kim Carr tour the facility



Dignitaries from the Australian Government and Monash University join members of the MATF team at the event

although still in its relative infancy, it already boasts impressive capabilities for high throughput production of custom-made, high-affinity monoclonal antibodies.

Michael Spiegel, deputy director of the Monash Antibody Technologies Facility, said: "We are the largest capacity and probably the most sophisticated and technologically advanced custom antibody facility in the world. There are already 50 academic projects in the pipeline and we are members of the structural genomic consortium, an international pilot project for creating binding agents to all human proteins and protein binders. We are also finalizing deals with several major corporations concerning the development of anywhere between 200 and 500 antibodies per year. We are truly an international facility and there are a number of companies in the United States, Europe and Australia who are very interested in our work."

This exciting new venture, partially funded by the Victorian State Government, is a component of an extensive 2008 development program set to strengthen Monash University's rising profile as a center of excellence in the international medical research community. At its core, the 10 integrated Freedom EVO liquid handling workstations that fully automate all stages of the monoclonal antibody production process are going through final stages of optimization. Michael added: "In just one year, and with Tecan's back-up, we have renovated a whole new space, brought in the automated systems and have them already producing antibodies, with optimization progressing at a steady pace. The fusion station and ELISA stations are fully operational, as are the REMP sample storage and retrieval system, tube labelling and reception injection capabilities."

Monash



The new state-of-the-art facility at Monash

“Right now we have the ability to make one thousand new targets a year per full time employee,” Michael continued. “We can do 24 fusions a day, all of which would yield something between 1,000-1,500 clones, and this is really interesting for pharmaceutical and biotech companies trying to come up with therapeutic antibodies. We can theoretically make about 5,000 new targets a year and there is no other facility that can achieve those numbers and really apply it to both research and to commercial production. The level of antibody production the market requires, however, is still well beyond what we can do with the new facility. We are starting to resolve the bottleneck but are really just at the tip of the iceberg and the next step will be to progress and develop the facility to expand even further.”

Michael concluded: There is a real need for this facility and when people hear what we can do here they are very excited. We recently made our one year presentation to the Victorian government to give them an update of what we have achieved so far and what we are planning in the future. The government representatives were impressed and, more importantly, were extremely satisfied with their investment in the facility.

Gavin Jennings, the Victorian government minister for Innovation and Environment cut the ceremonial ribbon at the opening ceremony, and guests included Kim Carr, the federal minister for innovation, the Chancellor, Vice Chancellor and Deputy Vice Chancellor of Research at Monash University and Carl Severinghaus, Tecan's Senior Vice President.

For more information about Tecan's Freedom EVO platform and our Protein Science solutions, visit www.tecan.com/tig www.tecan.com/proteinscience

For more information about Monash University, visit www.monash.edu.au

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Gavin Jennings and Kim Carr



Carl Severinghaus and Michael Spiegel

University