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Abstract

High throughput monoclonal antibodies

Monoclonal Antibodies have become the affinity reagent of choice due to their specificity, affinity & avidity, and their renewability. Until recently two major bottlenecks existed preventing high-throughput production of mouse-derived monoclonal antibodies. Tissue culture load was too high to be addressed cost-effectively using staff complement alone and screening assays were too cumbersome to be time and cost effective. Techniques developed at the EMBL in protein microarray screens alleviated the screening bottleneck.

A high throughput robotics complex at the Monash Antibody Technologies Facility using the EMBL screening assay has addressed both bottlenecks establishing a very high throughput platform and an open facility providing access to these critical reagents for Australian researchers and commercial entities as well as the wider global scientific and biopharma communities.

Biography

Alan has worked in the field of antibody production and immunology for over 19 years, including 12 years at the European Molecular Biology Laboratory (EMBL) and two years at MGH Harvard under the tutelage of Professor Ed Harlow. Alan has been the driving force behind the transformation of the EMBL core facility from a classical, low throughput facility to a world renowned, high throughput monoclonal antibody production platform.

He has developed novel protein microarray screening and regularly works as a consultant in the antibody field.