

1420, Thursday 16 June 2005.

Generation of Protein and Antibody Arrays

Dr Sabine Baars, Centre for Human Proteomics, RCSI

Abstract

Protein array technology is becoming an increasingly important tool in the drive towards proteome-scale analysis of protein activity and interactions. Presently, this technology compliments the more traditional methods for proteomic analysis, including two dimensional gel electrophoresis/chromatography and mass spectrometry. While the task of producing a 'whole-proteome' chip, containing active proteins, is a daunting one, current protein and antibody arrays represent the first steps towards that goal. The aim of this presentation is to introduce the current approaches for the generation of high content protein arrays, and some of their applications, including their use in the study of protein-protein interactions and characterisation of antibodies.

Biography

Dr Sabine Baars has been a Postdoctoral researcher at the Centre for Human Proteomics (CHP) since July 2004. Her projects include the use of protein arrays for characterisation of sera from patients with Sjogren's syndrome and isolating phage-derived antibodies against dilated cardiomyopathy marker proteins. She is also responsible for the CHP's contribution to the EU 'MolTools' project and various collaborative projects with industry.



Dr Baars obtained her University Diploma from the Technical University Carolo Wilhelmina in Braunschweig, Germany in 1998 and her PhD on the biological effects of tyrosine kinase inhibitors on papillomavirus transformed cells from the German Cancer Research Centre in Heidelberg. Prior to joining the CHP, she engaged in postdoctoral work at the RZPD Deutsches Ressourcenzentrum für Genomforschung GmbH in Heidelberg from 2001-2002, and at the Max Planck Institute for Molecular Genetics in Berlin from 2003-2004.