

**P. 38****SCREENING AND PROFILING PROTEIN EXPRESSION IN HUMAN  
CANCER SERUM USING ANTIBODY ARRAY TECHNOLOGIES****Angela S. Crawford, Beth K. Radwanski, Dian Er Chen**

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There is a growing need for technologies that enable discovery and validation of protein biomarkers in human serum/plasma. Antibody microarrays have been used successfully to rapidly identify and characterize protein expression in a targeted approach. In this study, antibody arrays were used to interrogate proteome differences in whole serum and in serum that had been depleted of twenty high abundance proteins. The depletion technology enhanced the identification of the lower abundance tissue leakage proteins, as compared to non-depleted serum samples. Antibody arrays were also used to profile differential protein expression between serum from normal and diseased patients. Proteins were identified which displayed significantly different expression levels between the samples. Results were validated with ELISA analysis.

This study showed that antibody arrays are a powerful tool for rapid expression profiling of proteins and may potentially be applied to biomarker discovery and validation in diseased serum samples.