

*IBC's Drug Discovery Technology*  
*Poster, August 8-11, 2005, Boston MA, Boston Convention and Exhibition Center*

**Automated enhancement and streamlining of therapeutic antibody discovery through the application of micro-scale high-performance protein separation technology**

Chris Hanna, Doug Gjerde and Jeremy Lambert, PhyNexus, Inc.  
Tony Liang and John Whelan, Raven Biotechnologies, Inc.

Due to the intrinsic quality that monoclonal antibodies have for highly targeted interactions with their antigens, their success as anti-cancer therapeutics has been particularly notable. A significant challenge associated with the discovery of these antibodies is the identification of drug targets that yield to antibody intervention, along with identification of corresponding antibodies that confer the desired functional outcome upon interaction with the target. While many technologies have evolved over the past decade to achieve these tasks, one particularly notable approach allows for simultaneous identification of both drugable cell-surface targets that possess true functional specificity *and* identification of monoclonal antibodies that modulate target function in such ways that make them attractive drug leads. By applying novel technologies for fully automated micro-scale high-performance purification and enrichment of the candidate antibodies, along with co-purification and enrichment of the antibodies' interaction partners, certain key tasks within this drug discovery platform can be enhanced and streamlined. This presentation will describe the application of these separation technologies to this simultaneous target/antibody discovery platform, the specific enhancements provided by doing so, and the overall improvements brought by this separation technology to therapeutic antibody discovery.