

## **Application of IMAP Technology to p38 $\alpha$ Protein Kinase**

Bonnie Bertolaet, Andrea Gerken, Bill Tschantz, Rick Jack and Dan Sem, Triad Therapeutics, Inc.

p38 is a serine/threonine kinase that plays an important role in pro-inflammatory cytokine pathways and has been the subject of intense drug discovery efforts. Traditionally, radioactivity-based assays have been used to screen members of the p38 kinase family. Non-radioactive, robust HTS assay formats, such as fluorescence polarization, have typically relied on antibodies. However, they have been difficult to generalize for serine/threonine kinases such as the p38 family due to the lack of universal anti-phosphoserine or anti-phosphothreonine antibodies. The use of the IMAP technology allows for fluorescence polarization to be used in a more generic fashion for all protein kinases without the reliance on antibodies. We have adapted the IMAP technology, originally optimized for p38 $\beta$ 2, for the p38 $\alpha$  isoform and will present data on the performance of this assay with respect to a variety of factors including enzyme concentration, linearity and response to known inhibitors. We will also present data from screening a commercially available small molecule library and a limited comparison study with other assay techniques.