This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Identification of small molecule protein inhibitors with laser-assisted detection of specific binding	<p>A laser-based system could help identify new small molecule inhibitors of various proteins. The system directs a laser at adjacent wells in a 384-well plate, with one well containing a small molecule and immobilized target protein and the other well containing only the small molecule. Specific small molecule-protein binding resulted in a detectable difference between the wavelengths of light reflected back to the system by photonic sensors in the two adjacent wells. Using carbonic anhydrase II (CAII) as the target protein, the system correctly distinguished the nanomolar CAII inhibitor dorzolamide from 47 other compounds that do not specifically bind CAII. Ongoing work has increased the sensitivity of the system for small molecule-protein binding and will be reported in a forthcoming publication.</p> <p>SciBX 7(18); doi:10.1038/scibx.2014.536 Published online May 8, 2014</p>	Patented; available for licensing	<p>Zhang, M. <i>et al.</i> <i>J. Am. Chem. Soc.</i>; published online April 10, 2014; doi:10.1021/ja500636p Contact: Brian T. Cunningham, University of Illinois at Urbana-Champaign, Urbana, Ill. e-mail: bcunning@illinois.edu Contact: Paul J. Hergenrother, same affiliation as above e-mail: hergenro@illinois.edu</p>