This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Chemistry			
Combinatorial chemistry method for identifying boronic acid-based inhibitors of oxygenase enzymes	<p>A combinatorial chemistry method for identifying boronic acid-based inhibitors of oxygenase enzymes could help identify new therapeutic leads. In the method, a boronate-based ligand is mixed with multiple alcohols to create a library of boronate esters, from which protein ligands are identified by mass spectrometry. The method identified molecules that bound hypoxia-inducible factor prolyl hydroxylase 2 (EGLN1; HIF-PH2; PHD2), an enzyme implicated in cancer. In human cells, a derivative of one of the identified ligands inhibited PHD2 to upregulate hypoxia-inducible factor 1α (HIF1A; HIF1-α). Next steps include testing derivatives of the PHD2 inhibitors in animal models and identifying inhibitors of other human and bacterial oxygenases.</p> <p>SciBX 5(25); doi:10.1038/scibx.2012.663 Published online June 21, 2012</p>	Methodology unpatented; patent applications filed on PHDs as therapeutic targets; available for licensing or partnering	<p>Demetriades, M. <i>et al. Angew. Chem. Int. Ed.</i>; published online May 25, 2012; doi:10.1002/anie.201202000 Contact: Christopher J. Schofield, University of Oxford, Oxford, U.K. e-mail: christopher.schofield@chem.ox.ac.uk Contact: Esther C.Y. Woon, National University of Singapore, Singapore e-mail: phaewcy@nus.edu.sg</p>