This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Chemistry			
Activity-directed synthesis of bioactive scaffolds	Activity-directed synthesis could enhance the efficiency of bioactive scaffold discovery. Chemical synthesis efforts are rarely directed by the functional activity of the products from a prior round of synthesis. The approach involves four steps: carrying out an array of catalyzed chemical reactions in which substrate, catalyst and solvent conditions are varied; scavenging and assaying the resulting product mixtures for desired activity at increasingly low concentrations; scaling up promising reactions; and purifying and identifying the resulting bioactive compounds. Three iterative rounds of activity-directed synthesis were carried out to screen for scaffolds that modulated androgen receptor activity, which identified subnanomolar agonists based on two scaffolds with no previously known activity against the receptor. Next steps include expanding the array of chemistry supported by the activity-directed synthesis approach. SciBX 7(37); doi:10.1038/scibx.2014.1107 Published online Sept. 25, 2014	Unpatented; licensing status undisclosed	Karageorgis, G. <i>et al. Nat. Chem.</i>; published online Aug. 24, 2014; doi:10.1038/nchem.2034 Contact: Adam Nelson, University of Leeds, Leeds, U.K. e-mail: s.l.warriner@leeds.ac.uk Contact: Stuart Warriner, same affiliation as above e-mail: a.s.nelson@leeds.ac.uk