This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Chemistry			
Nanomolar-scale, high throughput chemical synthesis of drug-like molecules	<p>A high throughput, miniaturized chemical synthesis platform could enable rapid discovery of lead compounds. The robotic platform utilized DMSO-compatible palladium (Pd) catalysts to carry out coupling reactions between libraries of electrophilic cores and nucleophilic building blocks on 1,536-well plates at nanomolar scale. High throughput mass spectrometric analysis identified successful reactions for subsequent scale up. In miniaturized screening experiments, 1,536 coupling reactions were analyzed in less than 3 hours and 21 hits were identified. Planned work by Merck & Co. Inc. includes implementing the platform in all aspects of drug discovery and development.</p> <p>SciBX 7(48); doi:10.1038/scibx.2014.1415 Published online Dec. 18, 2014</p>	Unpatented; licensing status not applicable	<p>Buitrago Santanilla, A. <i>et al. Science</i>; published online Nov. 20, 2014; doi:10.1126/science.1259203 Contact: Spencer D. Dreher, Merck & Co. Inc., Rahway, N.J. e-mail: spencer_dreher@merck.com Contact: Tim Cernak, same affiliation as above e-mail: timothy_cernak@merck.com</p>