This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Chemistry			
Rapid, inexpensive gram-scale synthesis of prostaglandins	<p>A method for synthesizing prostaglandins could help generate new compounds using fewer manufacturing steps. Synthesis of prostaglandin analogs is complicated, and drugs such as Xalatan latanoprost are still manufactured via a 20-step process. A two-step reaction sequence from inexpensive starting materials produced gram-scale quantities of a bicyclic enal intermediate. A five-step reaction sequence converted the enal intermediate to gram-scale quantities of prostaglandin $F_{2\alpha}$ ($PGF_{2\alpha}$). Ongoing work includes testing the biological activity of compound libraries generated from the enal intermediate.</p> <p>Xalatan, a prostaglandin F receptor (PTGFR) agonist from Pfizer Inc., is marketed to decrease intraocular pressure in glaucoma.</p> <p>At least 11 companies market prostaglandins or prostaglandin analogs to treat cardiovascular, ophthalmic, genitourinary and gastrointestinal diseases.</p> <p>SciBX 5(33); doi:10.1038/scibx.2012.879 Published online Aug. 23, 2012</p>	Patented; available for licensing	<p>Coulthard, G. <i>et al. Nature</i>; published online Aug. 15, 2012; doi:10.1038/nature11411</p> <p>Contact: Varinder K. Aggarwal, University of Bristol, Bristol, U.K. e-mail: v.aggarwal@bristol.ac.uk</p>