This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Reprogramming plant cells to make alkaloids for chemotherapy	<p>A study in plant cell culture suggests RNAi could be useful for manipulating plant alkaloid biosynthesis to make chemotherapeutics. Cultured Madagascar periwinkle root cells were transfected with an RNAi construct that knocked down tryptophan decarboxylase, an enzyme needed to make the alkaloid precursor molecule tryptamine. Adding a tryptamine derivative to the cultured cells led to the production of a range of alkaloids. Next steps include targeting other alkaloid biosynthesis genes in the pathway and using the technique to make derivatives of vinblastine, a chemotherapeutic derived from Madagascar periwinkle.</p> <p>SciBX 2(32); doi:10.1038/scibx.2009.1262 Published online Aug. 20, 2009</p>	Unpatented; licensing status not applicable	<p>Runguphan, W. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Aug. 3, 2009; doi:10.1073/pnas.0903393106 Contact: Sarah E. O'Connor, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: soc@mit.edu</p>