This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
MicroRNA-mediated reprogramming of fibroblasts into induced pluripotent stem (iPS) cells	<p>Studies in mice and in cell culture suggest that microRNA could be useful for reprogramming somatic cells into iPS cells. In mouse and human fibroblasts, lentiviral-mediated expression of microRNA-302 (miR-302) and miR-367 plus valproic acid reprogrammed the cells into iPS cells with up to two orders of magnitude higher efficiency than that of the standard reprogramming protocol using <i>Oct4</i>, <i>Sox2</i>, <i>Klf4</i>, and <i>c-Myc</i>. Next steps include confirming that the microRNA-reprogrammed iPS cells can be efficiently differentiated into various cell lineages and testing this approach in human cells that have so far been refractory to reprogramming.</p> <p>Valproic acid is a generic inhibitor of histone deacetylase 2 (HDAC2).</p> <p>SciBX 4(15); doi:10.1038/scibx.2011.441 Published online April 14, 2011</p>	Patent application filed; available for licensing from the University of Pennsylvania Center for Technology Transfer	<p>Anokye-Danso, F. <i>et al. Cell Stem Cell</i>; published online April 8, 2011; doi:10.1016/j.stem.2011.03.001</p> <p>Contact: Edward E. Morrisey, University of Pennsylvania, Philadelphia, Pa. e-mail: emorrisse@mail.med.upenn.edu</p>