This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Patient-derived cell lines as an <i>in vitro</i> model for drug screening for genetically complex diseases	<p>Screening small molecules in patient-derived cell lines could help identify new drug leads for genetically complex diseases. In lymphoblast cell lines derived from patients with maturity onset diabetes of the young type 1 (MODY1), a disease caused by a nonsense mutation in hepatocyte nuclear factor 4α (HNF4A; TCF), such a screen identified compounds that altered cellular ATP levels. These levels are a marker of cellular energy homeostasis and are affected by diabetes. In murine pancreatic β cells, several of the compounds identified in the first screen increased insulin secretion. Next steps include developing patient-derived cell lines that model other genetic diseases, including autoimmune and inflammatory disorders.</p> <p>SciBX 4(1); doi:10.1038/scibx.2011.23 Published online Jan. 6, 2011</p>	Unpatented; licensing status not applicable	<p>Shaw, S.Y. <i>et al.</i> <i>Proc. Natl. Acad. Sci. USA</i>; published online Dec. 20, 2010; doi:10.1073/pnas.1016789108 Contact: Stuart L. Schreiber, Harvard University, Cambridge, Mass. e-mail: stuart_schreiber@harvard.edu Contact: Stanley Y. Shaw, Massachusetts General Hospital, Boston, Mass. e-mail: shaw.stanley@mgh.harvard.edu</p>