This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Cellular model for Alzheimer's disease (AD) based on induced pluripotent stem (iPS) cells and embryonic stem cells (ESCs) from patients with Down syndrome	<p>A cellular model for AD in Down syndrome could help identify mechanisms of AD and test AD therapeutics. Individuals with Down syndrome have a high incidence of early onset AD. Cortical neurons derived from iPS cells or ESCs from patients with Down syndrome had key pathological features of AD, including increased levels of both pathogenic β-amyloid ($A\beta$) and phosphorylated microtubule-associated protein-τ (MAPT; TAU; FTDP-17), whereas stem cell-derived neurons from healthy controls did not. In the Down syndrome-derived neurons, a γ-secretase inhibitor prevented $A\beta$ peptide production. Next steps could include testing AD therapeutics in the model.</p> <p>SciBX 5(9); doi:10.1038/scibx.2012.236 Published online March 1, 2012</p>	Patent and licensing status unavailable	<p>Shi, Y. <i>et al. Sci. Transl. Med.</i>; published online Feb. 15, 2012; doi:10.1126/scitranslmed.3003771</p> <p>Contact: Frederick J. Livesey, University of Cambridge, Cambridge, U.K. e-mail: rick@gurdon.cam.ac.uk</p>