This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Mammalian cell and fruit fly models for neurodegeneration induced by GGGGCC repeats	<p>Mammalian neuronal cells and fruit flies that express GGGGCC repeats could be useful as models to study disease pathology and evaluate therapeutic candidates to treat amyotrophic lateral sclerosis (ALS) and frontotemporal dementia (FTD). Mammalian neuronal cells and neuronal tissues of fruit flies were engineered to express expanded GGGGCC repeats, which have been associated with ALS and FTD. In these models, expression of the repeat was sufficient to cause degeneration of neuronal cells, and overexpression of purine-rich element binding protein A (PURA), which binds to the GGGGCC repeats, led to decreased degeneration in neuronal cells compared with overexpression of a control protein. Next steps include conducting additional studies to validate the toxicity of the GGGGCC repeats and studying the distribution of PURA in mouse models.</p> <p>SciBX 6(14); doi:10.1038/scibx.2013.348 Published online April 11, 2013</p>	Models unpatented; available for licensing	<p>Xu, Z. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online April 3, 2013; doi:10.1073/pnas.1219643110</p> <p>Contact: Peng Jin, Emory University School of Medicine, Atlanta, Ga. e-mail: peng.jin@emory.edu</p> <p>Contact: Thomas S. Wingo, same affiliation as above e-mail: thomas.wingo@emory.edu</p>