This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Fly model of the blood-brain barrier (BBB)	<p>The fruit fly <i>Drosophila melanogaster</i> may serve as a more accurate model of the human BBB than existing animal models and could more effectively identify compounds that modulate the BBB. A genetic screen for fly mutants with a defective BBB identified multiple drug resistance 65 (Mdr65), a transporter that keeps foreign small molecules out of the nervous system. Mdr65 mutants had higher susceptibility to the neurotoxic compound vinblastine than did wild-type controls. BBB defects caused by a loss-of-function mutation in Mdr65 were corrected by transgenic expression of its human homolog, multidrug resistance (ABCB1; MDR1). Next steps include screening for small molecule antagonists of Mdr65 and testing the effects of those compounds on the BBB in higher organisms.</p> <p>SciBX 2(15); doi:10.1038/scibx.2009.640 Published online April 16, 2009</p>	<p>Patent pending on the <i>in vivo</i> blood-brain partitioning assay used in this study; available for licensing</p> <p>Contact: Joel Kirschbaum, Office of Technology Management, University of California, San Francisco, Calif. e-mail: joel.kirschbaum@ucsf.edu</p>	<p>Mayer, F. <i>et al.</i> <i>J. Neurosci.</i>; published online March 18, 2009; doi:10.1523/JNEUROSCI.5564-08.2009</p> <p>Contact: Roland J. Bainton, University of California, San Francisco, Calif. e-mail: baintonr@anesthesia.ucsf.edu</p>