This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Zebrafish and cell culture models for arrhythmogenic cardiomyopathy	<p>Zebrafish and cell culture models of arrhythmogenic cardiomyopathy could help drug discovery in the indication. In transgenic zebrafish, a mutation in <i>plakoglobin (Jup)</i> linked to arrhythmogenic cardiomyopathy in humans led to cardiac hypertrophy, arrhythmia and heart failure. In the model, chemical screening identified small molecules, including the glycogen dependent kinase 3 (GSK3) inhibitor SB216763, that increased survival at three months compared with no treatment. In cultured neonatal rat ventricular myocytes expressing the mutant <i>Jup</i>, SB216763 decreased apoptosis compared with no treatment and prevented the formation of cellular structural abnormalities. Next steps include confirming the mechanism of action of SB216763 and testing the compound and related molecules in mouse models of arrhythmogenic cardiomyopathy. GlaxoSmithKline plc's SB216763 has been evaluated in Phase I trials for bipolar disorder.</p> <p>SciBX 7(28); doi:10.1038/scibx.2014.842 Published online July 24, 2014</p>	Patent pending; available for licensing	<p>Asimaki, A. <i>et al. Sci. Transl. Med.</i>; published online June 11, 2014; doi:10.1126/scitranslmed.3008008 Contact: Jeffrey E. Saffitz, Beth Israel Deaconess Medical Center, Boston, Mass. e-mail: jsaffitz@bidmc.harvard.edu Contact: Angeliki Asimaki, same affiliation as above e-mail: aasimaki@bidmc.harvard.edu</p>