

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Heart-on-a-chip model for cardiomyopathy caused by Barth syndrome	<p>A heart-on-a-chip model for Barth syndrome-associated cardiomyopathy could help identify new treatments for the indication. The heart-on-a-chip model was designed using patient induced pluripotent stem (iPS) cell-derived cardiomyocytes that self-assembled into myocardial tissue. Resulting cardiomyocytes showed disrupted sarcomere organization and contractile abnormalities when organized into myocardial tissue, and they had decreased mitochondrial function compared with cardiomyocytes derived from iPS cells from healthy individuals. In the model system, linoleic acid or a reactive oxygen species scavenger increased sarcomere organization and decreased contractile abnormalities compared with vehicle. Next steps include developing a high throughput screening platform using the model and doing quality control.</p> <p>SciBX 7(23); doi:10.1038/scibx.2014.688 Published online June 12, 2014</p>	Covered by issued and filed patents; available for licensing	<p>Wang, G. <i>et al. Nat. Med.</i>; published online May 11, 2014; doi:10.1038/nm.3545 Contact: William T. Pu, Boston Children's Hospital, Boston, Mass. e-mail: wpu@enders.tch.harvard.edu Contact: Kevin Kit Parker, Harvard University, Cambridge, Mass. e-mail: kkparker@seas.harvard.edu</p>