This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
<i>In vivo</i> reprogramming of cardiac fibroblasts into cardiomyocytes	<p><i>In vivo</i> conversion of cardiac fibroblasts into cardiomyocytes could help treat heart damage. In mouse tail tip and cardiac fibroblasts, a retroviral vector expressing four transcription factors that control cardiac gene expression and development led to the conversion of the cells into cardiac-like myocytes. The four factors were GATA binding protein 4 (Gata4), heart and neural crest derivatives expressed 2 (Hand2), myocyte enhancer factor 2C (Mef2c) and T-box 5 (Tbx5). In a mouse model of myocardial infarction, intramyocardial injection of the same retroviral vector at 24 hours postinjury led to better cardiac function than injection of a control vector. Next steps include optimizing the treatment protocol and determining the mechanisms responsible for the efficacy. LoneStar Heart Inc. is developing a preclinical biologic to promote the development of cardiomyocytes in patients with congestive heart failure.</p> <p>SciBX 5(22); doi:10.1038/scibx.2012.586 Published online May 31, 2012</p>	Patent applications filed; licensed to LoneStar Heart	<p>Song, K. <i>et al. Nature</i>; published online May 13, 2012; doi:10.1038/nature11139 Contact: Eric N. Olson, The University of Texas Southwestern Medical Center, Dallas, Texas e-mail: eric.olson@utsouthwestern.edu</p>