

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Reprogramming fibroblasts into cardiomyocytes	<p>Studies in cell culture suggest that four transcription factors could be used to reprogram fibroblasts into cardiomyocytes to model diseases and promote regeneration of cardiac tissue. In cultured mouse embryonic fibroblasts, overexpression of the <i>Oct4</i>, <i>Sox2</i>, <i>Klf4</i> and <i>c-Myc</i> transcription factors induced the display of cardiomyocyte-associated genes and the formation of contractile patches of cells. Fibroblasts were reprogrammed into cardiomyocytes without first being reverted to a pluripotent state. Next steps include extending the work to human cells and identifying small molecule drugs that reprogram cardiac fibroblasts <i>in vivo</i> to expand their plasticity for cardiac remodeling after injury.</p> <p>Fate Therapeutics Inc. is developing cellular reprogramming and induction technologies.</p> <p>SciBX 4(7); doi:10.1038/scibx.2011.206 Published online Feb. 17, 2011</p>	<p>Patent application filed covering platform and conditions for <i>ex vivo</i> or <i>in vivo</i> generation of functional cardiac cells and tissues for treating diseases in which cardiomyocytes are damaged or lost; licensed to Fate Therapeutics</p>	<p>Efe, J.A. <i>et al. Nat. Cell Biol.</i>; published online Jan. 30, 2011; doi:10.1038/ncb2164 Contact: Sheng Ding, The Scripps Research Institute, La Jolla, Calif. e-mail: sding@scripps.edu</p>