

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Protocol to generate oligodendrocyte progenitor cells (OPCs) from pluripotent mouse epiblast stem cells	<p>A protocol to differentiate mouse epiblast stem cells into OPCs could help screen for myelin-promoting drugs and test cell-based therapies. A cocktail of bone morphogenetic protein (BMP) inhibitors, retinoic acid and sonic hedgehog homolog (SHH) triggered the differentiation of epiblast stem cells into cells resembling the developing spinal cord. The latter cells were then converted into OPCs when cultured in the presence of growth factors. In myelin-deficient mice, transplantation of the OPCs into the brain led to the development of myelinated nerve fibers compared with no transplantation. Next steps include optimizing the growth of OPCs in 384-well plates to screen for compounds that promote myelination and testing the ability of OPCs to promote functional recovery in animal models of myelin dysfunction.</p> <p>SciBX 4(40); doi:10.1038/scibx.2011.1131 Published online Oct. 13, 2011</p>	<p>Patent application filed by the Myelin Repair Foundation (MRF) and assigned to Case Western Reserve University. MRF has exclusive rights to license this technology for any indication</p> <p>Contact: Michael Haag, Case Western Reserve University, Cleveland, Ohio phone: 216-368-6106</p> <p>Contact: Jay S. Tung, Myelin Repair Foundation, Saratoga, Calif. phone: 408-871-2410</p>	<p>Najm, F.J. <i>et al. Nat. Methods</i>; published online Sept. 25, 2011; doi:10.1038/nmeth.1712</p> <p>Contact: Paul J. Tesar, Case Western Reserve University School of Medicine, Cleveland, Ohio e-mail: paul.tesar@case.edu</p>