

### This week in techniques

Approach	Summary	Licensing status	Publication and contact information
<b>Drug platforms</b>			
An improved protocol to derive dopaminergic neurons from embryonic stem cells (ESCs) to treat Parkinson's disease (PD)	<p>Studies in cell culture, rodents and monkeys suggest an improved procedure for deriving dopaminergic neurons from ESCs could help treat PD. In cell culture, human ESCs treated with a sonic hedgehog homolog (SHH) agonist, fibroblast growth factor 8 (FGF8) and a glycogen synthase kinase 3<math>\beta</math> (GSK3B) inhibitor yielded more midbrain dopaminergic neurons than ESCs treated with an SHH agonist and FGF8. In mouse and rat models of PD, dopaminergic neurons produced by that method had higher levels of engraftment and dopaminergic function than transplanted neurons made using a prior protocol. In a monkey model of PD, transplanted dopaminergic neurons showed good survival and connectivity after two months. Next steps include scaling up the procedure to produce sufficient volumes of dopaminergic neurons for clinical trials as well as conducting <i>in vitro</i> drug screening assays.</p> <p><b>SciBX 4(46); doi:10.1038/scibx.2011.1308</b>  <b>Published online Dec. 1, 2011</b></p>	Patent pending; available for licensing	<p>Kriks, S. <i>et al. Nature</i>; published online Nov. 6, 2011; doi:10.1038/nature10648  <b>Contact:</b> Lorenz Studer, Memorial Sloan-Kettering Cancer Center, New York, N.Y.                      e-mail: <a href="mailto:studerl@mskcc.org">studerl@mskcc.org</a></p>