

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
<i>Glypican 4 (GPC4)</i> deficiency to improve embryonic stem cell (ESC)-derived therapies for Parkinson's disease (PD)	Cell replacement therapies for PD derived from <i>GPC4</i> -deficient ESC lines could offer improved safety and efficacy over cells with intact <i>GPC4</i> . Residual, undifferentiated stem cells in stem cell-derived cell therapies can cause teratoma formation. In culture, mouse ESCs expressing a loss-of-function mutant <i>Gpc4</i> showed greater differentiation into dopaminergic neurons than wild-type mouse ESCs. In a rat model of PD, injection of the <i>Gpc4</i> -deficient mouse ESCs into the substantia nigra improved motor function and increased survival compared with injection of wild-type mouse ESCs. Next steps could include evaluating long-term outcomes and tumor risk in rodents receiving transplants of neurons derived from the <i>Gpc4</i> -deficient ESCs.	Patent and licensing status unavailable	Fico, A. <i>et al. J. Neurosci.</i> ; Published online July 11, 2014; doi:10.1523/JNEUROSCI.2501-13.2014 Contact: Harold Cremer, Aix-Marseille University, Marseille, France e-mail: harold.cremer@univ-amu.fr Contact: Rosanna Dono, same affiliation as above e-mail: rosanna.dono@univ-amu.fr
	SciBX 7(26); doi:10.1038/scibx.2014.779 Published online July 10, 2014		