This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Pain	Opioid receptor, $\delta 1$ (OPRD1)	<p>Studies in cell culture and in rats suggest that antagonizing OPRD1 could help decrease morphine tolerance. Cultured dorsal root ganglion neurons were treated with a cell-permeable OPRD1 peptide containing a domain that interacts with cell cyclin-dependent kinase 5 (Cdk5), which is activated in morphine tolerance. The peptide treatment decreased OPRD1 expression on the cell surface and disrupted the interaction between OPRD1 and Cdk5. Morphine-treated rats injected with a cell-permeable OPRD1 peptide had delayed development of acute and chronic morphine tolerance compared with that seen in rats given a control peptide. Next steps include additional testing to identify other potential benefits of the OPRD1 peptide.</p> <p>SciBX 2(12); doi:10.1038/scibx.2009.503 Published online March 26, 2009</p>	Unpatented; unlicensed	<p>Xie, W. <i>et al. J. Neurosci.</i>; published online March 18, 2009; doi:10.1523/JNEUROSCI.0415-09.2009 Contact: Yun Wang, Peking University, Beijing, China e-mail: wangy66@bjmu.edu.cn</p>