

### This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Neurology</b>				
Addiction	$\alpha$ -Amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid glutamate receptor (GRIA; AMPAR); glutamate receptor, ionotropic, AMPA 2 (GRIA2; GLUR2)	A rat study suggests that inhibiting the reuptake of AMPAR and GLUR2 subunits may be useful for treating heroin addiction. In a rat model of relapsing heroin addiction, i.v. injection of a peptide inhibitor of GLUR2 endocytosis resulted in less drug-seeking behavior than that seen in controls receiving a control peptide. Treatment with the peptide did not affect seeking behavior for a natural nonaddictive reward (sucrose). Next steps include developing small molecule inhibitors of GLUR2 endocytosis that can penetrate the blood-brain barrier. TorreyPines Therapeutics Inc. and Cortex Pharmaceuticals Inc. are developing AMPAR modulators for various neurological indications.	Patent and licensing status unavailable	Van den Oever, M.C. <i>et al. Nat. Neurosci.</i> ; published online Aug. 1, 2008; doi:10.1038/nn.2165 <b>Contact:</b> Sabine Spijker, VU University Amsterdam, Amsterdam, the Netherlands e-mail: <a href="mailto:sabine.spijker@cncr.vu.nl">sabine.spijker@cncr.vu.nl</a>