This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Epilepsy	Transforming growth factor- β (TGFB1); transforming growth factor receptor 1 (TGFB1; ALK5); transforming growth factor receptor 2 (TGFB2; TGF β -RII)	Studies in rats suggest that inhibiting TGFBR1 and TGFBR2 could help treat epilepsy induced by brain trauma. In rat cortical slices, incubation with TGFBR2 caused epileptic seizures that were prevented by inhibitors of TGFBR1 or TGFBR2. Coimmunoprecipitation studies showed that albumin associated with TGFBR2, thus activating the TGFB1 signaling pathway and potentially causing seizures. Serum albumin is known to cross the blood-brain barrier following trauma and can potentially cause seizures. Ongoing work includes identification of lead compounds targeting TGFB1 signaling and further elucidation of the role of TGFB1 signaling in epileptogenesis.	Patented; available for licensing	Cacheaux, L. <i>et al. J. Neurosci.</i> ; published online July 15, 2009; doi:10.1523/JNEUROSCI.0430-09.2009 Contact: Daniela Kaufer, University of California, Berkeley, Calif. e-mail: danielak@berkeley.edu
<i>SciBX</i> 2(28); doi:10.1038/scibx.2009.1113 Published online July 23, 2009				