

## This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Neurology</b>				
Autism; neurology; seizures	Mammalian target of rapamycin (mTOR; FRAP; RAFT1)	<p>Studies in mice suggest that inhibiting mTOR may be useful for treating PTEN-associated neurological disorders, including certain cases of autism and seizures. Mice with <i>Pten</i> mutations show progressive development of brain enlargement that correlates with abnormal behavior. In <i>Pten</i> mutant mice, rapamycin significantly lowered brain-to-body ratios compared with those seen in vehicle-treated controls (<math>p &lt; 0.05</math>). Rapamycin also significantly lowered anxiety behaviors and seizure frequency and duration compared with what was seen using vehicle control (<math>p &lt; 0.05</math>). Next steps could include identifying the protein targets in the mTOR pathway responsible for the disease pathologies.</p> <p>Rapamune sirolimus, a rapamycin non-calcineurin antagonist immune suppressant from Wyeth, is marketed to prevent transplant rejection.</p> <p><b>SciBX 2(8); doi:10.1038/scibx.2009.330</b>  <b>Published online Feb. 26, 2009</b></p>	Patent and licensing status unavailable	<p>Zhou, J. <i>et al. J. Neurosci.</i>; published online Feb. 11, 2009; doi:10.1523/JNEUROSCI.5685-08.2009</p> <p><b>Contact:</b> Luis F. Parada, University of Texas Southwestern Medical Center, Dallas, Texas  e-mail: <a href="mailto:luis.parada@utsouthwestern.edu">luis.parada@utsouthwestern.edu</a></p>