This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD)	Calpastatin (CAST)	<p>Studies in cell culture and in mice suggest that upregulating CAST in the brain could be useful for treating AD. CAST inhibits calpain, which has been implicated in AD progression. In sections of prefrontal cortex from human AD brains, CAST levels were lower than those seen in non-AD control brains. In cultured human neuroblastoma cells, small hairpin RNA knockdown of CAST increased susceptibility to calpain-mediated apoptosis compared with what was seen in cells that received control shRNA targeting carbonic anhydrase. In a mouse model of hippocampal neurodegeneration, transgenic mice expressing human CAST were protected against hippocampal excitotoxic cell death compared with what was seen in non-transgenic littermates. Next steps include identifying methods to manipulate CAST expression in the brain.</p> <p>SciBX 1(43); doi:10.1038/scibx.2008.1053 Published online Dec. 4, 2008</p>	Patented; unlicensed	<p>Rao, M. <i>et al. J. Neurosci.</i>; published online Nov. 19, 2008; doi:10.1523/JNEUROSCI.4119-08.2008</p> <p>Contact: Ralph A. Nixon, Nathan S. Kline Institute, Orangeburg, N.Y. e-mail: Nixon@nki.rfmh.org</p>