This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD)	Translocator protein (18kDa) (TSPO; PBR)	<p>Studies in mice have shown that PBR expression in the brain could be used to assess microglial neurotoxicity and guide therapeutic modulation of microglial activity associated with AD and other neurodegenerative conditions. In rodent models of neurodegenerative disease, PBR upregulation in microglia was associated with irreversible neuronal toxicity and damage. Conversely, PBR upregulation in astrocytes was associated with secretion of protective neurotrophic support factors and reversible neurotoxicity. Next steps to validate these findings include generating human anti-PBR antibodies for use in immunohistochemical assays and performing comparative PET and postmortem neuropathological analyses with radiotracers and anti-PBR antibodies.</p> <p>The authors have previously patented two PET radiotracers, [¹¹C]DAA1106 and [¹⁸F]fluoroethyl-DAA1106, for use in live brain PET scanning of PBR activity. [¹⁸F]fluoroethyl-DAA1106 is licensed to Bayer AG.</p> <p>SciBX 1(43); doi:10.1038/scibx.2008.1054 Published online Dec. 4, 2008</p>	Unpatented; licensing status not applicable	<p>Ji, B. <i>et al. J. Neurosci.</i>; published online Nov. 19, 2008; doi:10.1523/JNEUROSCI.3918-08.2008</p> <p>Contact: Makoto Higuchi, National Institute of Radiological Sciences, Chiba, Japan e-mail: mhiguchi@nirs.go.jp</p>