This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD)	Serotonin receptor	<p>Studies in mice and humans suggest selective serotonin reuptake inhibitors (SSRIs) could help treat AD. In a mouse model of AD, several SSRIs lowered soluble β-amyloid ($A\beta$) levels in brain interstitial fluid compared with vehicle. Chronic administration of a generic SSRI also decreased $A\beta$ plaque levels in the brain. In a retrospective study of depression patients, patients undergoing long-term SSRI therapy had lower brain levels of $A\beta$ than untreated patients. Next steps include identifying the molecular mechanism of serotonin's effect on $A\beta$ and testing the effect of direct serotonin receptor agonists on AD pathology in mice.</p> <p>At least 11 companies market generic SSRIs to treat depression, anxiety and other psychiatric indications.</p> <p>Pfizer Inc.'s PF-04995274, a partial agonist of serotonin ($5-HT_4$) receptor, is in Phase I testing for AD.</p> <p>SciBX 4(34); doi:10.1038/scibx.2011.968 Published online Sept. 1, 2011</p>	Unpatented; licensing status not applicable	<p>Cirrito, J.R. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Aug. 22, 2011; doi:10.1073/pnas.1107411108</p> <p>Contact: Yvette I. Sheline, Washington University in St. Louis School of Medicine, St. Louis, Mo. e-mail: yvette@npg.wustl.edu</p> <p>Contact: John R. Ciritto, same affiliation as above e-mail: cirritoj@neuro.wustl.edu</p>