

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Cognitive dysfunction	IL-1 receptor	<p>Rat studies suggest antagonizing IL-1 receptor in the brain could help prevent postoperative cognitive dysfunction in older individuals. In aged rats subjected to a laparotomy, brain infusion of an IL-1 receptor antagonist at the time of surgery prevented postoperative cognitive deficits and neuroinflammation, whereas intraperitoneal injection of the same antagonist did not. Next steps could include developing a strategy capable of delivering an IL-1 receptor antagonist into the CNS.</p> <p>Kineret anakinra, an IL-1 receptor antagonist from Amgen Inc. and Swedish Orphan Biovitrum AB, is marketed to treat rheumatoid arthritis.</p> <p>Arcalyst rilonacept, a recombinant protein with the heterodimeric IL-1 receptor linked to the Fc portion of human IgG from Regeneron Pharmaceuticals Inc., is marketed to treat NLR family pyrin domain containing 3 (NLRP3; NALP3; CIAS1)-associated periodic syndrome (CAPS).</p> <p>At least four other companies have IL-1 receptor inhibitors in Phase II testing or earlier to treat various indications.</p> <p>SciBX 5(44); doi:10.1038/scibx.2012.1166 Published online Nov. 8, 2012</p>	Patent and licensing status unavailable	<p>Barrientos, R.M. <i>et al.</i> <i>J. Neurosci.</i>; published online Oct. 17, 2012; doi:10.1523/JNEUROSCI.2173-12.2012</p> <p>Contact: Ruth M. Barrientos, University of Colorado at Boulder, Boulder, Colo. e-mail: ruth.barrientos@colorado.edu</p>