

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Neuroinflammation	Colony-stimulating factor 1 receptor (CSF1R; C-FMS; CD115)	<p>Mouse studies suggest CSF1R inhibition could help suppress microglia-mediated neuroinflammation. In mice, systemic treatment with the CSF1R inhibitor PLX3397 decreased brain microglia by 50% after 3 days and by 99% after 21 days without causing deficits in learning, memory, motor function or behavior. In the PLX3397-treated, microglia-depleted mice, brain-resident progenitor cells appeared 3 days after stopping PLX3397 and microglia numbers reverted to wild-type levels 21 days after stopping treatment. Next steps include investigating whether CSF1R inhibition could block microglia activation after traumatic brain injury or in neuroinflammatory diseases, including Alzheimer's disease (AD).</p> <p>Daiichi Sankyo Co. Ltd. has PLX3397 in Phase II testing to treat various cancers.</p> <p>SciBX 7(20); doi:10.1038/scibx.2014.590 Published online May 22, 2014</p>	Patent on PLX3397 held by Daiichi Sankyo; licensing status unavailable	Elmore, M.R.P. <i>et al. Neuron</i> ; published online April 16, 2014; doi:10.1016/j.neuron.2014.02.040 Contact: Kim N. Green, University of California, Irvine, Calif. e-mail: kngreen@uci.edu