

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Stroke	Phosphoinositide 3-kinase- δ (PI3K δ)	<p><i>In vitro</i> and mouse studies suggest inhibiting PI3Kδ could help treat stroke. Tumor necrosis factor-α (TNF-α)-mediated inflammation associated with reperfusion after stroke can cause tissue damage. In a microglia-based cell culture model of stroke, the PI3Kδ-selective inhibitor idelalisib (formerly CAL-101) decreased TNF-α secretion compared with vehicle. In a mouse model of stroke, treatment with CAL-101 15 minutes before or up to 3 hours after reperfusion decreased brain damage compared with vehicle. Next steps include preclinical and clinical studies of selective PI3Kδ inhibitors in stroke.</p> <p>Gilead Sciences Inc.'s idelalisib is under regulatory review to treat non-Hodgkin's lymphoma (NHL) and chronic lymphocytic leukemia (CLL).</p> <p>Takeda Pharmaceutical Co. Ltd. has the PI3Kδ inhibitor IPI-145 in Phase III testing to treat CLL.</p> <p>At least six other companies have PI3Kδ inhibitors in Phase II testing or earlier to treat various diseases.</p> <p>SciBX 7(13); doi:10.1038/scibx.2014.380 Published online April 3, 2014</p>	Unpatented; licensing status not applicable	<p>Low, P.C. <i>et al. Nat. Commun.</i>; published online March 14, 2014; doi:10.1038/ncomms4450</p> <p>Contact: Frédéric A. Meunier, The University of Queensland, Brisbane, Queensland, Australia e-mail: f.meunier@uq.edu.au</p> <p>Contact: Pei Ching Low, National University of Singapore, Singapore e-mail: phstva@nus.edu.sg</p>