This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Pain	LIM domain kinase 1 (LIMK1); LIMK2	<p>Rat studies suggest inhibiting LIM domain kinases could help treat inflammation- and heat-induced pain. Rats subjected to both types of pain showed greater Limk1 and Limk2 activity and protein levels in dorsal root ganglia than controls that did not receive pain stimuli. In rats, plasmid-encoded, dominant-negative Limk1 and Limk2 mutants decreased sensitivity to heat- and inflammation-induced pain compared with plasmid-encoded, wild-type kinases or control protein. Next steps include determining the downstream mechanisms by which LIM domain kinase signaling regulates the transient receptor potential vanilloid 1 (TRPV1; VR1) nociceptor in inflammatory pain and whether the signaling pathway also is active in models of neuropathic and cancer-associated pain. Lexicon Pharmaceuticals Inc. has the small molecule LIMK2 inhibitor LX7101 in Phase I testing to treat glaucoma.</p> <p>SciBX 7(29); doi:10.1038/scibx.2014.872 Published online July 31, 2014</p>	Patent pending; unavailable for licensing	<p>Li, Y. <i>et al. Sci. Signal.</i>; published online June 24, 2014; doi:10.1126/scisignal.2005353 Contact: Yun Wang, Peking University, Beijing, China e-mail: wangy66@bjmu.edu.cn Contact: Jun Wang, same affiliation as above e-mail: wangjun74008@bjmu.edu.cn</p>