This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD); diabetic neuropathy; neuropathy; Parkinson's disease (PD)	Mitogen-activated protein kinase kinase kinase 12 (MAP3K12; DLK); c-jun N-terminal kinase (JNK)	<p><i>Drosophila</i> and mouse studies suggest that inhibition of DLK or JNK could prevent axon degeneration in several neurological diseases or during chemotherapy. In a <i>Drosophila</i> model of axon injury, flies lacking a DLK ortholog had less axonal degeneration than wild-type controls. Similarly, in dorsal root ganglion cultures from DLK-deficient mice, less axonal degeneration was seen after axonal severing or after the axons were treated with the chemotherapeutic drug vincristine, which has known neuropathic side effects. DLK-deficient mice had less sciatic nerve degeneration in response to axonal transection <i>in vivo</i> than wild-type controls. Ongoing work is elucidating the mechanism of DLK and JNK action in neurogeneration and studying DLK and JNK inhibition in additional <i>in vivo</i> models of neuropathy.</p> <p>Aegera Therapeutics Inc.'s AEG33773 JNK inhibitor is in Phase I testing to treat diabetic neuropathy.</p> <p>SciBX 2(11); doi:10.1038/scibx.2009.462 Published online March 19, 2009</p>	Patented; licensing status undisclosed	<p>Miller, B. <i>et al. Nat. Neurosci.</i>; published online March 15, 2009; doi:10.1038/nn.2290</p> <p>Contact: Aaron DiAntonio, Washington University School of Medicine, St. Louis, Mo. e-mail: diantonio@wustl.edu</p>