This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Pain	Sphingosine 1-phosphate receptor 1 (S1PR1; S1P1; EDG1)	*In vitro* and rat studies suggest inhibiting S1PR1 could help treat chemotherapy-induced peripheral neuropathy. In rats treated with paclitaxel, which increases production of the S1PR1 ligand sphingosine 1-phosphate and causes chemotherapy-induced neuropathic pain, intratracheal administration of a selective S1PR1 antagonist decreased mechanical allodynia and hypersensitivity compared with vehicle administration. In rats, oral paclitaxel plus Gilenya fingolimod, a sphingosine 1-phosphate receptor modulator that depletes S1PR1 levels, decreased neuropathic pain compared with vehicle. Next steps include IND-enabling studies on S1PR1 antagonists and agonists. Mitsubishi Tanabe Pharma Corp. and Novartis AG market Gilenya fingolimod to treat multiple sclerosis (MS). Noxxon Pharma AG has the S1PR1 inhibitor NOX-S93 in preclinical testing to treat cancer and autoimmune diseases.	Patented by Saint Louis University in the U.S. and patent pending in Europe; exclusively licensed by Biointervene Inc.	Janes, K. *et al. J. Biol. Chem.*; published online May 29, 2014; doi:10.1074/jbc.M114.569574 **Contact:** Daniela Salvemini, Saint Louis University School of Medicine, St. Louis, Mo. e-mail: salvemd@slu.edu

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