This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Chronic myelogenous leukemia (CML)	Protein phosphatase 2 (PPP2CA; PP2A)	<p>Studies in patient samples and mice suggest Gilenya fingolimod and nonimmunosuppressive derivatives could help eradicate leukemic stem cells in CML, which are associated with disease relapse. In leukemic hematopoietic stem cells (HSCs) isolated from patients with CML, PP2A activity was lower than that in healthy HSCs. In the CML stem cells, Gilenya or any of three nonimmunosuppressive derivatives activated PP2A, impaired self-renewal and induced apoptosis. In mouse xenograft models of CML, Gilenya decreased leukemic stem cell numbers compared with no treatment. Next steps include designing additional PP2A activators.</p> <p>Novartis AG markets the sphingosine 1-phosphate receptor agonist Gilenya to treat relapsing forms of multiple sclerosis (MS).</p> <p>Oncotide Pharmaceuticals Inc. has SET nuclear oncogene (SET) inhibitors in preclinical development to treat various cancers. SET inhibition is designed to activate PP2A.</p>	Multiple patent applications filed covering nonimmunosuppressive derivatives and their use in various cancers; available for licensing and partnering from The Ohio State University Technology Commercialization and Knowledge Transfer Office	<p>Neviani, P. <i>et al. J. Clin. Invest.</i>; published online Sept. 3, 2013; doi:10.1172/JCI68951</p> <p>Contact: Danilo Perrotti, University of Maryland, College Park, Md. e-mail: dperrotti@som.umaryland.edu</p>
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