This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Musculoskeletal disease				
Osteoporosis	Lysophosphatidic acid receptor 1 (LPAR1; EDG2; LPA1)	<p><i>In vitro</i> and mouse studies suggest LPAR1 antagonists could help treat osteoporosis. In mouse models of the indication, bone levels of Lpar1 were higher than those in healthy control mice, and LPAR1 antagonists decreased bone loss compared with vehicle. In bone marrow cells from normal mice, Lpar1 levels correlated with markers of osteoclast differentiation, and <i>Lpar1</i> deficiency or inhibition decreased osteoclast differentiation compared with normal <i>Lpar1</i> expression or vehicle. Planned work includes testing bone levels of LPAR1 in patients with osteoporosis.</p> <p>Bristol-Myers Squibb Co.'s BMS-986202 (formerly AM152), an oral LPAR1 antagonist, is in Phase I testing to treat pulmonary fibrosis. The company also has another oral LPAR1 antagonist, AM095, in preclinical testing to treat scleroderma.</p> <p>Kyowa Hakko Kirin Co. Ltd. and Debiopharm Group have Debio 0719, a selective inhibitor of LPAR1 and LPAR3 (EDG7; LPA3), in preclinical testing to treat cancer.</p> <p>SciBX 7(6); doi:10.1038/scibx.2014.177 Published online Feb. 13, 2014</p>	Unpatented; unlicensed; available for partnering	<p>David, M. <i>et al.</i> <i>J. Biol. Chem.</i>; published online Jan. 15, 2014; doi:10.1074/jbc.M113.533232</p> <p>Contact: Olivier Peyruchaud, Institut National de la Santé et de la Recherche Médicale (INSERM) U1033, Lyon, France</p> <p>e-mail: olivier.peyruchaud@inserm.fr</p>