This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Ophthalmic disease				
Age-related macular degeneration (AMD)	ATP-binding cassette sub-family A member 1 (ABCA1); liver X receptor (LXR); microRNA-33 (miR-33)	<p><i>In vitro</i> and mouse studies suggest increasing ABCA1 levels or antagonizing miR-33 could help treat AMD. In macrophages from aged mice, increased miR-33 levels caused decreased ABCA1 expression, which led to greater endothelial cell proliferation than that seen in macrophages from younger mice. In macrophages from the aged mice, an LXR antagonist that upregulated ABCA1 expression or an anti-miR-33 oligonucleotide reversed aberrant endothelial cell proliferation, whereas vehicle or a noncoding anti-miRNA had no effect. In a mouse model for wet AMD, the LXR antagonist decreased choroidal neovascularization compared with vehicle. Next steps could include additional animal studies.</p> <p>AstraZeneca plc and Regulus Therapeutics Inc. have an antisense oligonucleotide targeting miR-33 in preclinical testing for cardiovascular indications.</p> <p>SciBX 6(15); doi:10.1038/scibx.2013.371 Published online April 18, 2013</p>	Patent and licensing status unavailable	<p>Sene, A. <i>et al. Cell Metab.</i>; published online April 2, 2013; doi:10.1016/j.cmet.2013.03.009 Contact: Rajendra S. Apte, Washington University in St. Louis School of Medicine, St. Louis, Mo. e-mail: apte@vision.wustl.edu</p>