This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Ophthalmic disease				
Age-related macular degeneration (AMD)	CC chemokine receptor 3 (CCR3); eotaxin-1 (CCL11); eotaxin-2 (CCL24); eotaxin-3 (CCL26)	<p>Studies in human tissues and in mice suggest that targeting CCR3 or its ligands could help treat AMD. Choroidal endothelial cells from human AMD patients expressed CCR3 and its ligands, CCL11, CCL24 and CCL26, whereas cells from non-AMD patients did not. In a mouse model of choroidal neovascularization (CNV), stimulation of choroidal endothelial cells with CCR3 ligands promoted choroidal angiogenesis, which led to AMD. Inhibiting CCR3, CCL11 or CCL24 blocked CNV. In a mouse model of spontaneous CNV, noninvasive <i>in vivo</i> imaging detected CCR3 expression before choroidal neovascularization disrupted the retina, indicating that CCR3 could be an early marker for AMD. Ongoing work is focused on optimizing the <i>in vivo</i> CCR3-imaging technology for diagnostic purposes.</p> <p>Miravant Medical Technologies Inc.'s photodynamic therapy, Photrex rostoporfin, is in Phase III testing to treat CNV associated with AMD.</p> <p>NeoVista Inc.'s Epi-Rad90, a device for delivering an intraocular dose of ⁹⁰Sr-β brachytherapy, is in Phase III testing to treat CNV associated with AMD.</p> <p>Bayer AG and Regeneron Pharmaceuticals Inc. have VEGF Trap-Eye, a fusion protein that binds all forms of VEGFA and placental growth factor (PlGF), in Phase III testing to treat AMD.</p> <p>SciBX 2(24); doi:10.1038/scibx.2009.983 Published online June 18, 2009</p>	Patented; available for licensing	<p>Takeda, A. <i>et al. Nature</i>; published online June 14, 2009; doi:10.1038/nature08151</p> <p>Contact: Jayakrishna Ambati, University of Kentucky, Lexington, Ky. e-mail: jamba2@email.uky.edu</p>