This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Ophthalmic disease				
Blindness	Histone deacetylase 4 (HDAC4)	<p>Mouse studies suggest that overexpression of HDAC4 could prevent retinal degeneration and thus treat or prevent blindness. In a mouse model of retinal degeneration, overexpression of Hdac4 increased bipolar interneuron and rod photoreceptor survival. In addition, genetic or chemical knockdown of hypoxia-inducible factor 1α (Hif1α; Hif1α) in the mouse model blocked the prosurvival effects of Hdac4, suggesting that Hif1α is necessary for Hdac-mediated survival. Further studies are necessary to determine the long-term effects of Hdac4 in animals.</p> <p>Partners Silence Therapeutics plc., Pfizer Inc. and Quark Pharmaceuticals Inc. are running a Phase I/II trial of RTP-801i-14, a small interfering RNA that targets an <i>hypoxia-inducible</i> gene, for age-related macular degeneration (AMD). The compound also is in preclinical testing for choroidal neovascularization.</p> <p>SciBX 2(3); doi:10.1038/scibx.2009.112 Published online Jan. 22, 2009</p>	Patent application filed in the U.S.; available for licensing	<p>Chen, B. & Cepko, C. <i>Science</i>; published online Nov. 9, 2008; doi:10.1126/science.1166226</p> <p>Contact: Constance L. Cepko, Harvard Medical School, Boston, Mass. e-mail: cepko@genetics.med.harvard.edu</p> <p>Contact: Bo Chen, same affiliation as above e-mail: bochen@genetics.med.harvard.edu</p>