

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Ophthalmic disease				
Ophthalmic disease	Adrenergic receptor α_1 (ADRA1); ADRA2; adenylyate cyclase 1 (ADCY1; AC1)	<p>Mouse studies suggest antagonizing ADRA1 or stimulating ADRA2 could help treat Stargardt disease. In healthy human and mouse retinas, transcriptome analyses identified GPCRs and GPCR signaling genes that were highly expressed in the eye, including isoforms of <i>ADRA2</i>. In a mouse model of Stargardt disease, pretreatment with an ADRA1 antagonist, an ADRA2 agonist or an AC1 inhibitor preserved retinal function by decreasing photoreceptor damage, levels of reactive oxygen species and fluorescent deposits in the retina after damaging light exposure. Next steps could include testing the approaches in additional animal models of retinal diseases.</p> <p>SciBX 7(1); doi:10.1038/scibx.2014.28 Published online Jan. 9, 2014</p>	Patent and licensing status unavailable	<p>Chen, Y. <i>et al.</i> <i>J. Clin. Invest.</i>; published online Nov. 15, 2013; doi:10.1172/JCI69076 Contact: Krzysztof Palczewski, Case Western Reserve University, Cleveland, Ohio e-mail: kxp65@case.edu</p>