This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Depression	DNA-damage-inducible transcript 4 (DDIT4; RTP801; REDD1)	<p>Rodent and human studies suggest inhibiting REDD1 could help treat major depressive disorder (MDD). In postmortem human prefrontal cortex samples from patients with MDD, mRNA expression of the mammalian target of rapamycin complex 1 (mTORC1) inhibitor REDD1 was increased compared with that in samples from individuals without MDD. <i>Redd1</i> knockout mice showed resistance to chronic stress-induced behaviors and decreases in mTORC1 signaling and the number and function of spine synapses compared with wild-type mice. In rats, injection of a <i>REDD1</i>-expressing viral vector into the prefrontal cortex induced behaviors and neuronal atrophy similar to those caused by chronic stress. Next steps include screening for compounds that disrupt the effect of REDD1. Kunshan RiboQuark Pharmaceutical Technology Co. Ltd. and Pfizer Inc. have PF-655, an siRNA targeting REDD1, in Phase II testing to treat diabetic macular edema (DME) and wet age-related macular degeneration (AMD).</p> <p>SciBX 7(19); doi:10.1038/scibx.2014.564 Published online May 15, 2014</p>	Unpatented; unavailable for licensing	<p>Ota, K.T. <i>et al. Nat. Med.</i>; published online April 13, 2014; doi:10.1038/nm.3513 Contact: Ronald S. Duman, Yale School of Medicine, New Haven, Conn. e-mail: ronald.duman@yale.edu</p>