This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Autism	Adrenergic receptor β_2 (ADRB2)	<p>Mouse studies suggest ADRB2 agonists could help treat Rett syndrome. In a mouse model of the disease, an ADRB2 agonist decreased breathing abnormalities, anxiety behaviors and memory deficits and increased motor function compared with vehicle. Also in the models, the ADRB2 agonist and recombinant human insulin-like growth factor-1 (IGF-1) decreased breathing and cardiac deficits and increased survival compared with either agent alone. Ongoing work includes using induced pluripotent stem (iPS) cells generated from patients with Rett syndrome to identify microRNAs that contribute to disease pathogenesis.</p> <p>Ipsen Group, Menarini Group and Roche's Genentech Inc. unit market Increlex mecasermin IGF-1 to treat growth hormone deficiency. Ipsen and Menarini have Increlex in Phase I/II testing to treat Rett syndrome.</p> <p>At least nine companies market ADRB2 agonists to treat asthma, chronic obstructive pulmonary disease (COPD) and/or emphysema.</p> <p>SciBX 7(30); doi:10.1038/scibx.2014.900 Published online Aug. 7, 2014</p>	Unpatented; unlicensed	<p>Mellios, N. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online June 23, 2014; doi:10.1073/pnas.1309426111</p> <p>Contact: Mriganka Sur, Massachusetts Institute of Technology, Cambridge, Mass. e-mail: msur@mit.edu</p>