This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Cognitive dysfunction	Muscarinic acetylcholine receptor M1 (CHRM1; HM1)	<p><i>In vitro</i> and mouse studies suggest that benzylquinolone carboxylic acid (BQCA) activates HM1 and could help treat cognitive impairment. In cultured prefrontal cortical pyramidal cells, BQCA increased spontaneous excitatory postsynaptic currents, an effect that was absent in HM1-knockout cells. In a mouse model of Alzheimer's disease, BQCA restored discriminatory learning abilities, suggesting an improvement in cognitive functioning. Next steps include optimizing the compounds.</p> <p>At least four companies have HM1 agonists in clinical and preclinical testing for neurological conditions.</p> <p>SciBX 2(45); doi:10.1038/scibx.2009.1671 Published online Nov. 19, 2009</p>	Findings unpatented; unavailable for licensing	<p>Shirey, J. <i>et al. J. Neurosci.</i>; published online Nov. 19, 2009; doi:10.1523/JNEUROSCI.3930-09.2009</p> <p>Contact: P. Jeffrey Conn, Vanderbilt University Medical Center, Nashville, Tenn. e-mail: jeff.conn@vanderbilt.edu</p>