This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD)	Brain-derived neurotrophic factor (BDNF)	<p>Studies in several animal models suggest that BDNF may be useful for reversing AD- and age-related declines in cognitive ability. In an AD mouse model, BDNF treatment elicited a β-amyloid (Aβ)-independent increase in synaptic and behavioral measures compared with what was seen in untreated controls. In a monkey model of age-related cognitive impairment, lentiviral vector-based transduction of BDNF into the brain significantly improved visuospatial learning and memory compared with the effects of using control vector ($p < 0.05$). Similar results were seen in aged rats receiving a 28-day infusion of BDNF into the brain compared with what was seen in controls treated with artificial cerebrospinal fluid ($p < 0.05$). Next steps include evaluating the long-term safety of the gene delivery approach in animal AD models and advancing to a Phase I trial.</p> <p>Cogane, a synthetic neuroprotectant and neurotrophic compound from Phytopharm plc and Astellas Pharma Inc., is in Phase II to treat AD.</p> <p>CERE-110, an adeno-associated viral (AAV) vector encoding nerve growth factor (NGF) from Ceregene Inc., is in Phase I testing for the same indication.</p> <p>AL-209, a nine-amino-acid activity-dependent neurotrophic factor (ADNF) from Allon Therapeutics Inc., is in preclinical testing for AD.</p> <p>SciBX 2(7); doi:10.1038/scibx.2009.291 Published online Feb. 19, 2009</p>	Patent pending for use in AD; available for licensing from the University of California, San Diego Technology Transfer Office	<p>Nagahara, A.H. <i>et al. Nat. Med.</i>; published online Feb. 8, 2009; doi:10.1038/nm.1912</p> <p>Contact: Mark H. Tuszynski, University of California, San Diego, La Jolla, Calif. e-mail: mtuszynski@ucsd.edu</p>