

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD)	G protein-coupled receptor 3 (GPR3)	<p>A study in cell culture and in mice suggests inhibiting GPR3 could help treat AD. In cell culture, overexpression of GPR3 increased production of AD-associated β-amyloid ($A\beta$) compared with that seen in mock-treated controls, whereas small interfering RNA knockdown of GPR3 decreased $A\beta$ production. In cultured mouse neurons, GPR3 overexpression increased levels of γ-secretase, an enzyme that converts amyloid precursor protein (APP) to $A\beta$, compared with those seen in untreated controls. In a mouse model of AD, <i>Gpr3</i> deletion lowered $A\beta$ levels in the hippocampus compared with those seen in wild-type controls. Next steps include developing small molecule antagonists of GPR3 and testing them in mouse models of AD-associated cognitive impairment. Galapagos N.V. has a preclinical program targeting GPR3 to treat AD.</p> <p>SciBX 2(8); doi:10.1038/scibx.2009.327 Published online Feb. 26, 2009</p>	Patented by Galapagos N.V.; available for partnering	<p>Thathiah, A. <i>et al. Science</i>; published online Feb.12, 2009; doi:10.1126/science.1160649</p> <p>Contact: Bart De Strooper, Catholic University Leuven, Leuven, Belgium e-mail: bart.destrooper@med.kuleuven.be</p> <p>Contact: David Fischer, Galapagos N.V., Mechelen, Belgium e-mail: david.fischer@glpg.com</p>