

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD)	<i>Triggering receptor expressed on myeloid cells 2 (TREM2)</i>	Genetic association studies identified a <i>TREM2</i> variant that could be associated with AD. Whole-genome sequencing of samples from 3,550 Icelandic patients with AD and 8,888 controls at least 85 years of age without AD identified rs75932628-T, a missense mutation in <i>TREM2</i> , that was significantly associated with increased AD risk ($p=3.4 \times 10^{-10}$). The association was confirmed in cohorts from the U.S., Norway, the Netherlands and Germany. In Icelandic individuals without AD between 80 and 100 years of age, cognitive decline was worse in carriers of the rs75932628-T mutation than in noncarriers ($p=0.003$). In a second study, sequencing <i>TREM2</i> in 1,092 patients with AD and 1,107 controls identified additional <i>TREM2</i> variants in the patients with AD and an association between rs75932628 and increased risk of AD ($p<0.001$). The association was confirmed in an additional cohort and a meta-analysis of a genomewide association study in AD. Next steps could include confirming the findings in additional patient cohorts.	Patent and licensing status for first study unavailable Findings from second study unpatented; licensing status not applicable	Jonsson, T. <i>et al. N. Engl. J. Med.</i> ; published online Nov. 14, 2012; doi:10.1056/NEJMoa1211103 Contact: Kari Stefansson, deCode genetics ehf, Reykjavik, Iceland e-mail: kstefans@decode.is Guerreiro, R. <i>et al. N. Engl. J. Med.</i> ; published online Nov. 14, 2012; doi:10.1056/NEJMoa1211851 Contact: John Hardy, UCL Institute of Neurology, London, U.K. e-mail: j.hardy@ucl.ac.uk
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