This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD)	β -Site APP-cleaving enzyme 1 (BACE1); sphingosine kinase 1 (SPHK1); SPHK2; β -amyloid (A β)	Cell culture and mouse studies suggest inhibiting SPHK1 or SPHK2 could help treat AD. In cultured mouse neuroblastoma cells, small interfering RNA knockdown of either target decreased Bace1 activity, as measured by lower A β levels, compared with vehicle controls. In a transgenic mouse model of AD, a SPHK inhibitor decreased brain A β levels compared with vehicle control. Next steps include testing SPHK2 inhibitors in additional mouse models of AD. CTS-21166, a BACE1 inhibitor from CoMentis Inc. and Astellas Pharma Inc., is in Phase I testing to treat AD. BACE1 inhibitors in preclinical testing for AD include TAK-070 from Takeda Pharmaceutical Co. Ltd. and HPP854 from TransTech Pharma Inc.	Unpatented; unavailable for licensing	Takasugi, N. <i>et al. J. Neurosci.</i> ; published online May 4, 2011; doi:10.1523/JNEUROSCI.6467-10.2011 Contact: Taisuke Tomita, The University of Tokyo, Tokyo, Japan e-mail: taisuke@mol.f.u-tokyo.ac.jp
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