

### This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Neurology</b>				
Alzheimer's disease (AD)	Signal transducer and activator of transcription 3 (STAT3); tyrosine kinase 2 (TYK2)	<p>Studies <i>in vitro</i> and in mice suggest that inhibiting TYK2/STAT3 signaling could help treat AD. In postmortem brains of patients with AD, STAT3 phosphorylation was higher than that in brains from healthy controls. In cultured neurons, inhibition of STAT3 reduced <math>\beta</math>-amyloid (<math>A\beta</math>)-induced toxicity compared with that in controls. In cultured TYK2-deficient neurons, as compared with wild-type neurons, <math>A\beta</math>-induced toxicity and STAT3 phosphorylation were reduced. Next steps include identifying STAT3 and TYK2 inhibitors.</p> <p><b>SciBX 3(21); doi:10.1038/scibx.2010.655</b>  <b>Published online May 27, 2010</b></p>	Patent application filed for use of STAT3 and TYK2 as drug targets for neurodegenerative diseases; available for licensing when patent obtained	<p>Wan, J. <i>et al. J. Neurosci.</i>; published online May 19, 2010;            doi:10.1523/JNEUROSCI.0519-10.2010  <b>Contact:</b> Nancy Y. Ip, The Hong Kong University of Science and Technology, Hong Kong, China            e-mail:  <a href="mailto:boip@ust.hk">boip@ust.hk</a></p>