

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD)	Glycogen synthase kinase 3 β (GSK3B)	<p>Cell culture studies identified pyrazine-based inhibitors of GSK3B that could help treat neurodegenerative diseases such as AD. <i>In vitro</i>, a lead compound of the series inhibited GSK3B-mediated microtubule-associated protein-τ (MAPT; TAU; FTDP-17) phosphorylation with nanomolar IC₅₀ values, showed properties associated with good brain penetration and had good target selectivity across a panel of 26 kinases. Researchers did not disclose next steps, which could include evaluating the lead inhibitor in animal models of AD.</p> <p>AstraZeneca plc's lead pyrazine analog GSK3B inhibitor is in preclinical development.</p> <p>Tideglusib, a GSK3 inhibitor from Noscira S.A., is in Phase II testing to treat AD.</p> <p>Neu-120, a selective uncompetitive NMDAR modulator and monoamine oxidase B (MAO-B) and GSK3B inhibitor from Neurim Pharmaceuticals Ltd., is in Phase II testing for Parkinson's disease (PD).</p> <p>DiaMedica Inc.'s DM-99, an undisclosed naturally occurring protein that inhibits GSK3B, is in preclinical development for AD.</p> <p>SciBX 5(18); doi:10.1038/scibx.2012.472 Published online May 3, 2012</p>	Patent status undisclosed; unavailable for licensing	<p>Berg, S. <i>et al.</i> <i>J. Med. Chem.</i>; published online April 10, 2012; doi:10.1021/jm201724m</p> <p>Contact: Stefan Berg, AstraZeneca R&D, Soedertaelje, Sweden</p> <p>e-mail: stefan.berg@astrazeneca.com</p>