This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD); Parkinson's disease (PD)	Heparan sulfate proteoglycan (HSPG)	<i>In vitro</i> and mouse studies suggest inhibiting the interaction between microtubule-associated protein- τ (MAPT; TAU; FTDP-17) fibrils and HSPG could help treat AD. In AD and PD, pathogenic TAU and α -synuclein (SNCA) fibrils spread by being released and then subsequently internalized by connected neurons. In cultured mouse primary neurons and neural precursor cells, extracellular Tau fibrils bound Hspg on cell surfaces. In neuronal precursor cells and in cortices of wild-type mice, inhibition of the interaction between Hspg and Tau or Snca with a heparin mimetic decreased their internalization and aggregation compared with no treatment. Next steps include designing small molecule inhibitors of the HSPG-TAU interaction.	Patent application filed; unavailable for licensing	Holmes, B.B. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; published online July 29, 2013; doi:10.1073/pnas.1301440110 Contact: Marc I. Diamond, Washington University in St. Louis School of Medicine, St. Louis, Mo. e-mail: diamondm@neuro.wustl.edu
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