This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Alzheimer's disease (AD)	Arrestin β 2 (ARRB2)	<i>In vitro</i> and mouse studies suggest antagonizing ARRB2 could help treat AD. <i>In vitro</i> , ARRB2 coimmunoprecipitated with γ -secretase, a proteolytic complex that generates β -amyloid ($A\beta$). In cell culture, overexpression of ARRB2 increased production of $A\beta$ and small interfering RNA knockdown of ARRB2 decreased $A\beta$ levels compared with what was seen using vector controls. In a mouse model of AD, Arrb2 knockout mice had lower levels of $A\beta$ than wild-type controls. Next steps include identifying pharmacological modulators of G protein-coupled receptor 3 (GPR3), a receptor that appears to work upstream of ARRB2 and previously has been implicated in $A\beta$ production.	Patent pending; unavailable for licensing	Thathiah, A. <i>et al. Nat Med.</i> ; published online Dec. 2, 2012; doi:10.1038/nm.3023 Contact: Bart De Strooper, Catholic University Leuven, Leuven, Belgium e-mail: bart.destrooper@cme.vib-kuleuven.be Contact: Amantha Thathiah, same affiliation as above e-mail: amantha.thathiah@cme.vib.kuleuven.be
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