This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Neurology				
Parkinson's disease (PD)	Eukaryotic translation initiation factor 4E binding protein 1 (EIF4EBP1); mammalian target of rapamycin (mTOR; FRAP; RAFT1)	<p>Studies in fruit flies suggest that increasing EIF4EBP1 levels could help treat PD. In two fruit fly models of PD, flies with muscle-specific overexpression of the gene homologous to <i>EIF4EBP1</i> had significantly better movement than controls that did not overexpress the protein ($p < 0.001$). The mTOR inhibitor rapamycin also significantly reduced disease pathology compared with dimethyl sulfoxide ($p < 0.01$). In fruit flies, the <i>EIF4EBP1</i> homolog is negatively regulated by TOR signaling. Next steps include evaluating the use of rapamycin or similar compounds in mouse models of PD.</p> <p>Rapamune rapamycin is marketed by Wyeth to prevent organ rejection in kidney transplant patients.</p> <p>SciBX 2(32); doi:10.1038/scibx.2009.1250 Published online Aug. 20, 2009</p>	Patent and licensing status unavailable	<p>Tain, L.S. <i>et al. Nat. Neurosci.</i>; published online Aug. 16, 2009; doi:10.1038/nn.2372</p> <p>Contact: Alexander J. Whitworth, University of Sheffield, Sheffield, U.K. e-mail: a.whitworth@sheffield.ac.uk</p>