This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Neurology				
Spinal cord injury (SCI)	Protein tyrosine phosphatase receptor type S (PTPRS; PTPδ)	<i>In vitro</i> and mouse studies suggest that inhibiting PTPRS could help treat SCI. <i>In vitro</i> and cell culture studies identified Ptp _{rs} as the receptor of chondroitin sulfate proteoglycans (CSPGs), a class of molecules that inhibit neuronal regeneration following CNS injury. In cultured murine dorsal root ganglion neurons, <i>Ptp_{rs}</i> knockout led to significantly better neurite outgrowth following CSPG challenge than that in wild-type neurons ($p < 0.01$). In adult mice with injured dorsal columns, animals with <i>Ptp_{rs}</i> knockout had significantly greater axon extension in the lesion area than wild-type mice ($p < 0.001$). Next steps include developing and testing selective inhibitors of PTPRS.	Findings patented; available for licensing	Shen, Y. <i>et al. Science</i> ; published online Oct. 15, 2009; doi:10.1126/science.1178310 Contact: John Flanagan, Harvard Medical School, Boston, Mass. e-mail: flanagan@hms.harvard.edu
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