

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cardiovascular disease				
Heart failure	Regulator of G-protein signaling 5 (RGS5); MAP kinase kinase 1 (MAP2K1; MEK1); MAP kinase 3 (MAPK3; ERK-1); MAPK1 (ERK-2)	<p>Mouse studies suggest that upregulating RGS5 or inhibiting MEK1 and ERK-1/ERK-2 signaling could help treat cardiac hypertrophy. In mice, cardiac pressure overload led to greater <i>Rgs5</i> expression and hypertrophy than those resulting from sham operations. In the overload mice, overexpression of <i>Rgs5</i> led to lower Mek1 and Erk-1/Erk-2 signaling and less hypertrophy than normal <i>Rgs5</i> expression. In <i>Rgs5</i>^{-/-} overload mice, inhibitors of MEK1 and ERK-1/ERK-2 signaling prevented the increased hypertrophy compared with phosphate saline control. Next steps include testing whether RGS5 upregulation or MEK1 and ERK-1/ERK-2 inhibition can treat established hypertrophy.</p> <p>SciBX 3(30); doi:10.1038/scibx.2010.922 Published online Aug. 5, 2010</p>	Patent and licensing status unavailable	<p>Li, H. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online July 19, 2010; doi:10.1073/pnas.1008397107</p> <p>Contact: Congxin Huang, Renmin Hospital of Wuhan University, Wuhan, China e-mail: cxhuang@whu.edu.cn</p> <p>Contact: Hongliang Li, same affiliation as above e-mail: lihl@whu.edu.cn</p>