This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cardiovascular disease				
Ischemia/ reperfusion injury	NADH dehydrogenase subunit 3 (ND3; MT-ND3)	<i>In vitro</i> and mouse studies suggest S-nitrosylation of MT-ND3 could help prevent ischemia/reperfusion injury. In a mouse model for ischemia/reperfusion injury, injection of a mitochondria-selective S-nitrosylating agent (MitoSNO) during reperfusion decreased infarct size compared with injection of an untargeted S-nitrosylating compound. <i>In vitro</i> , S-nitrosylation at cysteine 39 of MT-ND3 was required for the protective effect of MitoSNO and prevented reactive oxygen species production. Next steps include optimizing the MitoSNO formulation and conducting animal safety and Phase I studies.	Patent issued in the EU; patent application filed in U.S.; available for licensing	Chouchani, E.T. <i>et al. Nat. Med.</i> ; published online May 26, 2013; doi:10.1038/nm.3212 Contact: Michael P. Murphy, Medical Research Council Mitochondrial Biology Unit, Cambridge, U.K. e-mail: mpm@mrc-mbu.cam.ac.uk
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