

### This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Inflammation</b>				
Inflammation	NLR family pyrin domain containing 3 (NLRP3; NALP3; CIAS1); IL-1 $\beta$	<p>Studies in cell culture and in mice suggest that inhibiting NLRP3 could help prevent tissue damage caused by inflammation associated with renal, myocardial and cerebral ischemia. In <i>Nlrp3</i>-deficient mice, animals given an intraperitoneal injection of necrotic murine cells had less neutrophil infiltration and secretion of proinflammatory IL-1<math>\beta</math> than wild-type controls. In a mouse model of ischemia-induced acute tubular necrosis, 14% of <i>Nlrp3</i>-deficient animals died of renal failure compared with 92% of wild-type controls (<math>p &lt; 0.0001</math>). Next steps include finishing ongoing work to determine the role NLRP3 plays in cerebral and cardiac ischemia and identifying NLRP3 inhibitors.</p> <p>Novartis AG's anti-IL-1<math>\beta</math> antibody Ilaris canakinumab (ACZ885) is in Phase III testing to treat CIAS1-associated periodic syndrome (CAPS), a spectrum of inflammatory conditions linked to <i>NLRP3</i> mutations.</p> <p><b>SciBX 2(47); doi:10.1038/scibx.2009.1731</b>  <b>Published online Dec. 10, 2009</b></p>	Unpatented; unlicensed	<p>Iyer, S. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Nov. 16, 2009; doi:10.1073/pnas.0908698106</p> <p><b>Contact:</b> Fayyaz S. Sutterwala, University of Iowa, Iowa City, Iowa  e-mail: <a href="mailto:fayyazsutterwala@uiowa.edu">fayyazsutterwala@uiowa.edu</a></p> <p>Contact: Jaklien C. Leemans, University of Amsterdam, Amsterdam, the Netherlands  e-mail: <a href="mailto:j.c.leemans@amc.uva.nl">j.c.leemans@amc.uva.nl</a></p>