This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Pulmonary disease				
Acute lung injury	IL-6; IL-6 receptor (IL-6R; CD126); IL-6 signal transducer (IL-6ST; gp130; CD130)	<p>Human plasma and mouse studies suggest inhibiting IL-6 trans-signaling could help treat pancreatitis-associated acute lung injury. In patients with acute pancreatitis who progressed to lung or other organ failure, plasma taken at disease onset showed significantly higher IL-6 and IL-6R levels than plasma from individuals with mild acute pancreatitis ($p < 0.001$). In a mouse model for acute pancreatitis-induced lethal acute lung injury, a fusion protein called sgp130Fc that inhibits IL-6 trans-signaling decreased lung injury and increased survival compared with no treatment. Next steps include testing sgp130Fc or the anti-IL-6 mAb Actemra tocilizumab in patients with acute pancreatitis-associated acute lung injury and as a prophylactic in patients undergoing pancreatic endoscopy, which increases the risk of pancreatitis. Roche and partner Chugai Pharmaceutical Co. Ltd. have Actemra in Phase III testing to treat ankylosing spondylitis and Phase II testing to treat scleroderma. Regeneron Pharmaceuticals Inc. and partner Sanofi have sarilumab, an anti-IL-6R human mAb, in Phase III testing to treat rheumatoid arthritis (RA). Ablynx N.V.'s ALX-0061, an anti-IL-6R nanobody, is in Phase II testing to treat RA.</p> <p>SciBX 6(9); doi:10.1038/scibx.2013.224 Published online March 7, 2013</p>	Sgp130Fc patented; licensed to the Conaris Research Institute AG; protein out-licensed to Ferring	<p>Zhang, H. <i>et al. J. Clin. Invest.</i>; published online Feb. 15, 2013; doi:10.1172/JCI64931</p> <p>Contact: Hana Algül, Technical University Munich, Munich, Germany e-mail: hana.alguel@lrz.tum.de</p>