

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Inflammation				
Chronic granulomatous disease (CGD)	IL-1 receptor	<p>Mouse and human studies suggest IL-1 receptor antagonists could help prevent infections and treat colitis in patients with CGD. Patients with CGD have a mutated NADPH complex, which results in reactive oxygen species deficiency and leads to defective autophagy. In CGD mice with <i>Aspergillus fumigatus</i> infection or chemically induced colitis, the IL-1 receptor inhibitor Kineret anakinra increased survival and decreased colitis symptoms compared with no treatment. In monocytes from patients with CGD exposed to <i>Aspergillus</i>, Kineret restored autophagy and phagocytic responses to normal levels. In two patients with CGD and colitis, three months of Kineret led to progressive improvement of colitis symptoms with no infections. Next steps could include testing anakinra in larger patient cohorts. Swedish Orphan Biovitrum AB markets Kineret, an IL-1 receptor antagonist, to treat rheumatoid arthritis (RA) and cryopyrin-associated periodic syndrome (CAPS).</p> <p>SciBX 7(11); doi:10.1038/scibx.2014.316 Published online March 20, 2014</p>	Patent and licensing status unavailable	<p>de Luca, A. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Feb. 18, 2014; doi:10.1073/pnas.1322831111 Contact: Charles A. Dinarello, University of Colorado Denver, Aurora, Colo. e-mail: cdinarello@mac.com</p>