

### This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Inflammation</b>				
Asthma	Toll-like receptor 4 (TLR4); fibrinogen	<p><i>In vitro</i> and mouse studies suggest blocking the interaction between fibrinogen cleavage products and TLR4 could help treat allergic asthma. In mice, <i>Tlr4</i> knockout or treatment with a proteinase inhibitor decreased allergic airway disease induced by a fungal proteinase or ovalbumin compared with no knockout or with vehicle treatment. In human and mouse macrophages, fibrinogen cleavage products, generated from serum fibrinogen by fungal or airway proteinases, induced an antifungal immune response that was prevented by <i>Tlr4</i> knockout. Next steps include identifying the specific fibrinogen cleavage products involved in antifungal immunity and airway hyperresponsiveness.</p> <p>Eisai Co. Ltd.'s Eritoran (E5564), a synthetic lipid A analog that blocks TLR4 activation, failed to meet the primary endpoint of reduced mortality in Phase III testing for sepsis, and development has been put on hold. At least two other companies have TLR4 inhibitors in Phase II or earlier testing to treat inflammatory or autoimmune diseases.</p> <p><b>SciBX 6(35); doi:10.1038/scibx.2013.964</b>  <b>Published online Sept. 12, 2013</b></p>	Findings unpatented; unavailable for licensing	<p>Millien, V.O. <i>et al. Science</i>; published online Aug. 16, 2013; doi:10.1126/science.1240342</p> <p><b>Contact:</b> Farrah Kheradmand, Baylor College of Medicine, Houston, Texas  e-mail: <a href="mailto:farrahk@bcm.edu">farrahk@bcm.edu</a></p> <p><b>Contact:</b> David B. Corry, same affiliation as above  e-mail: <a href="mailto:dcorry@bcm.edu">dcorry@bcm.edu</a></p>