This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Pulmonary disease				
Chronic obstructive pulmonary disease (COPD)	Killer cell lectin-like receptor subfamily K member 1 (KLRK1; CD314; NKG2D); MHC class I polypeptide-related sequence A (MICA)	Human tissue analysis and <i>in vitro</i> and mouse studies suggest that targeting NKG2D or its ligand MICA could help treat or prevent COPD. In lung epithelial cells isolated from mice chronically exposed to cigarette smoke, NKG2D-mediated cytotoxicity and the levels of retinoic acid early transcript 1 (Raet1), which is the mouse equivalent of MICA, were higher than those seen in unexposed cells. In lung tissue samples from COPD patients, <i>MICA</i> expression was also higher than that seen in healthy individuals. In a mouse model of Raet1-induced COPD, an NKG2D antibody reversed the condition. Next steps could include determining the effects of blocking Raet1 or MICA <i>in vivo</i> .	Patent and licensing status unavailable	Borchers, M. <i>et al. J. Clin. Invest.</i> ; published online Feb. 9, 2009; doi:10.1172/JCI34462 Contact: Michael T. Borchers, University of Cincinnati College of Medicine, Cincinnati, Ohio e-mail: michael.borchers@uc.edu
<i>SciBX</i> 2(7); doi:10.1038/scibx.2009.295 Published online Feb. 19, 2009				