This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Pulmonary disease				
Chronic obstructive pulmonary disease (COPD)	Integrin $\alpha_v\beta_8$	<p>Mouse and <i>in vitro</i> studies suggest an optimized anti-integrin $\alpha_v\beta_8$ antibody could help treat COPD. In a mouse model of COPD engineered to express human integrin β_8, an anti-integrin $\alpha_v\beta_8$ mAb decreased inflammation and fibrosis compared with isotype control IgG. <i>In vitro</i> and structural analysis revealed that the mAb caused integrin $\alpha_v\beta_8$ heterodimers to adopt a low-affinity conformation that prevented activation of transforming growth factor-β1 (TGFB1). Next steps include compound optimization including pharmacokinetic and biodistribution analysis toxicity studies and production to scale.</p> <p>SciBX 7(28); doi:10.1038/scibx.2014.836 Published online July 24, 2014</p>	Patent applications filed covering the COPD mouse model and antibody; mouse model available for licensing	<p>Minagawa, S. <i>et al. Sci. Transl. Med.</i>; published online June 18, 2014; doi:10.1126/scitranslmed.3008074 Contact: Stephen L. Nishimura, University of California, San Francisco, Calif. e-mail: stephen.nishimura@ucsf.edu</p>