This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Pulmonary disease				
Acute lung injury	Adenosine A2B receptor (ADORA2B; A2BAR)	Studies in mice suggest that increasing A2BAR expression may be useful for treating acute lung injury. Wild-type mice with ventilator-induced lung injury (VILI) that were treated with the A2BAR antagonist PSB1115 had significantly shorter survival times on a ventilator than vehicle-treated mice ($p<0.001$). Conversely, wild-type mice with VILI that were treated with the A2BAR agonist BAY 60-6583 had substantially longer survival times on a ventilator than vehicle-treated controls ($p<0.001$). Next steps include evaluating A2BAR agonists in patient samples and large animal models of acute lung injury and identifying the specific pulmonary tissues that express the receptor. BAY 60-6583, a nonpurine-selective A2BAR agonist from Bayer AG, is in preclinical testing for acute lung injury. CVT-6883, an A2BAR antagonist from CV Therapeutics Inc., is in Phase I testing to treat pulmonary diseases. At least two other companies have A2BAR antagonists in preclinical testing to treat pulmonary diseases.	Bayer's Bayer HealthCare AG subsidiary has patented BAY 60-6583 for use in multiple indications; licensing status undisclosed	Eckle, H. *et al. J. Clin. Invest.*; published online Sept. 11, 2008; doi:10.1172/JCI34203 **Contact:** Holger K. Eltzschig, University of Colorado Health Sciences Center, Denver, Colo. e-mail: holger.eltzschig@uchsc.edu