This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Pulmonary disease				
Cystic fibrosis (CF)	Estrogen	Studies in humans and in cell culture suggest that estrogen antagonists could be useful for treating CF. In CF, defects in airway mucus hydration are caused by insufficient Cl^- secretion. In women experiencing regular menstrual cycles, a fourfold increase in blood 17β-estradiol (E2) levels were accompanied by a 50% decrease in uridine triphosphate-stimulated Cl^- secretion. In a cell culture assay of airway mucus hydration, E2 treatment significantly lowered airway surface liquid homeostasis in CF cultures compared with that seen in non-CF cultures ($p < 0.05$). Tamoxifen partially rescued the E2-induced decline in airway surface liquid homeostasis in CF cells compared with what was seen in mock-treated controls. Next steps include testing lung function and mucus clearance in non-CF individuals treated with anti-estrogens for other indications. Tamoxifen is a generic estrogen receptor antagonist marketed to treat breast cancer. SciBX 1(44); doi:10.1038/scibx.2008.1084 Published online Dec. 11, 2008	Unpatented; currently unlicensed	Coakley, R. <i>et al.</i> <i>J. Clin. Invest.</i>; published online Nov. 20, 2008; doi:10.1172/JCI33893 Contact: Robert Tarran, University of North Carolina at Chapel Hill, Chapel Hill, N.C. e-mail: robert_tarran@med.unc.edu