This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Pulmonary disease				
Cystic fibrosis (CF)	Histone deacetylase 7 (HDAC7)	A study in cell culture suggests that antagonizing HDAC7 could help treat CF. The $\Delta F508$ mutation of cystic fibrosis transmembrane conductance regulator (CFTR) results in the absence of cell-surface CFTR and a loss in airway hydration, leading to CF. In a cell culture model of $\Delta F508$-mediated CF, the broad-spectrum HDAC inhibitor vorinostat increased cell-surface levels of CFTR compared with mock treatment. Small interfering RNA knockdown of a single HDAC—HDAC7—also increased cell-surface expression of CFTR. Next steps include screening for selective small molecule HDAC7 antagonists and other small molecule protein folding stimulators. Zolinza vorinostat is marketed by Merck & Co. Inc. to treat cutaneous T cell lymphoma (CTCL). At least 20 companies are developing HDAC inhibitors for various indications. SciBX 3(1); doi:10.1038/scibx.2010.22 Published online Jan. 7, 2010	Patent pending; licensed to Proteostasis Therapeutics Inc.	Hutt, D. <i>et al. Nat. Chem. Biol.</i>; published online Dec. 6, 2009; doi:10.1038/nchembio.275 Contact: William E. Balch, The Scripps Research Institute, La Jolla, Calif. e-mail: webalch@scripps.edu