

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Pulmonary disease				
Emphysema; acute respiratory distress syndrome (ARDS); chronic obstructive pulmonary disease (COPD)	Elastase	An SAR study characterized a class of 4-oxo- β -lactams as inhibitors of porcine pancreatic elastase that could be useful for treating emphysema, ARDS and COPD. A human analog of the porcine elastase, human leukocyte elastase, is a serine protease that can contribute to inflammation and tissue destruction in a variety of pulmonary diseases. The most potent inhibitor of the porcine enzyme was also a potent inhibitor of the human analog. Next steps include improving the pharmacokinetics of the compounds. No fewer than nine companies have elastase inhibitors in development stages ranging from preclinical to marketed.	Not patented; unlicensed	Mulchande, J. <i>et al. J. Med. Chem.</i> ; published online Feb. 22, 2008; doi:10.1021/jm701257h Contact: Rui Moreira, Universidade de Lisboa, Lisboa, Portugal e-mail: rmoreira@ff.ul.pt Contact: Michael I. Page, University of Huddersfield, Huddersfield, U.K. e-mail: m.i.page@hud.ac.uk