

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Inflammation				
Rhinitis	Taste receptor type 1 (TAS1R; T1R); TAS2R (T2R)	<p>Patient sample and cell culture studies suggest agonizing bitter taste receptors (TAS2Rs) or antagonizing sweet taste receptors (TAS1Rs) could help treat chronic rhinosinusitis. In human primary sinonasal cells cultured at an air-liquid interface, bitter taste receptor agonists induced secretion of antimicrobial peptides that had potent bactericidal activity against <i>Pseudomonas aeruginosa</i>, methicillin-resistant <i>Staphylococcus aureus</i>, <i>Klebsiella pneumonia</i> and <i>S. epidermis</i>. In the bitter taste receptor agonist-stimulated cultures, glucose or other sweet taste receptor agonists inhibited the antimicrobial effect. In nasal secretions from patients with chronic rhinosinusitis, glucose levels were higher than those in secretions from healthy controls. Next steps include evaluating the effects of taste receptor modulation in humans.</p> <p>SciBX 7(12); doi:10.1038/scibx.2014.350 Published online March 27, 2014</p>	Patent application filed; available for licensing	<p>Lee, R.J. <i>et al. J. Clin. Invest.</i>; published online Feb. 17, 2014; doi:10.1172/JCI72094</p> <p>Contact: Noam A. Cohen, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, Pa. e-mail: cohenn@uphs.upenn.edu</p>