This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Dental disease				
Periodontitis	IL-17A; IL-23	<p>Patient and mouse studies suggest inhibiting IL-17A or IL-23 could help treat the severe periodontitis that develops in patients who have leukocyte adhesion deficiency type I (LAD I). In patients with LAD I who have periodontitis, gum levels of IL-17A were higher than those in patients with periodontitis alone. In mouse models of LAD I with periodontitis, gingival levels of IL-23- and IL-17a-producing T cells correlated with loss of periodontal bone. In the mice, a rat antibody against IL-23 or IL-17a decreased periodontal bone loss compared with an inactive control antibody. Next steps include testing whether IL-23 and IL-17A drive periodontitis in other diseases involving defective neutrophil recruitment.</p> <p>Novartis AG's secukinumab (AIN457), a human IgG1 mAb targeting IL-17A, is under review to treat psoriasis; in Phase III testing to treat psoriatic arthritis, rheumatoid arthritis (RA) and ankylosing spondylitis; and in Phase II trials to treat multiple sclerosis (MS).</p> <p>Eli Lilly and Co.'s ixekizumab (LY2439821), a humanized mAb against IL-17A, is in Phase III testing to treat psoriasis and psoriatic arthritis and Phase I trials to treat RA.</p> <p>Merck & Co. Inc.'s tildrakizumab (MK-3222), an anti-IL-23 antibody, is in Phase III testing to treat psoriasis.</p> <p>SciBX 7(15); doi:10.1038/scibx.2014.431 Published online April 17, 2014</p>	Unpatented; available for partnering	<p>Moutsopoulos, N.M. <i>et al. Sci. Transl. Med.</i>; published online March 26, 2014; doi:10.1126/scitranslmed.3007696</p> <p>Contact: Niki M. Moutsopoulos, National Institutes of Health, Bethesda, Md. e-mail: nmoutsop@mail.nih.gov</p> <p>Contact: George Hajishengallis, University of Pennsylvania School of Dental Medicine, Philadelphia, Pa. e-mail: geoh@upenn.edu</p>