This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Non-small cell lung cancer (NSCLC)	IL-17	<p>Mouse studies suggest blocking IL-17 could help treat or prevent inflammatory chronic obstructive pulmonary disease (COPD)-associated NSCLC. In a mouse model of early NSCLC, inoculation of COPD-generating lysates from <i>Haemophilus influenza</i> increased tumor growth, which was associated with higher T helper type 17 (Th17) cell numbers, compared with no inoculation. In lysate-treated mice with NSCLC, <i>IL-17</i> knockout decreased tumor growth compared with <i>IL-17f</i> knockout. Antibody-mediated depletion of IL-17-recruited myeloid cells also decreased tumor growth compared with no alteration. Next steps include investigating other reagents that could block Th17 cells such as IL-23-specific antibodies or RAR-related orphan receptor C thymus-specific isoform (RORγ2; RORγT) inhibitors. Brodalumab, a humanized mAb against IL-17 receptor (IL17R; IL17RA) from Amgen Inc. and partners AstraZeneca plc and Kyowa Hakko Kirin Co. Ltd., is in Phase III testing to treat psoriasis and Phase II trials to treat asthma, psoriatic arthritis and inflammatory diseases.</p> <p>At least eight other companies have compounds that block IL-17 signaling in Phase II or earlier development to treat various autoimmune and inflammatory diseases.</p> <p>SciBX 7(17); doi:10.1038/scibx.2014.491 Published online May 1, 2014</p>	Unpatented; licensing status not applicable	<p>Chang, S.H. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online March 31, 2014; doi:10.1073/pnas.1319051111 Contact: Seyed Javad Moghaddam, The University of Texas MD Anderson Cancer Center, Houston, Texas e-mail: smoghadd@mdanderson.org Contact: Seon Hee Chang, same affiliation as above e-mail: shchang@mdanderson.org</p>