This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Pancreatic cancer	CXC chemokine receptor 4 (CXCR4; NPY3R); programmed cell death 1 ligand 1 (CD274 molecule; PD-L1; B7-H1); CTLA-4 (CD152)	<p>Mouse studies suggest CXCR4 antagonists could help treat pancreatic ductal adenocarcinoma. Pancreatic ductal adenocarcinomas (PDAs) are resistant to mAbs targeting CTLA-4 and PD-L1, which normally promote T cell function against tumors. In a mouse model of PDA, depletion of carcinoma-associated fibroblasts decreased tumor growth and sensitized tumors to anti-CTLA-4 and anti-PD-L1 treatment. Also in the mouse model, the CXCR4 antagonist Mozobil plerixafor, which blocks the action of chemokine CXC motif ligand 12 (CXCL12; SDF-1) produced by the fibroblasts, sensitized the tumors to an anti-PD-L1 antibody. Next steps include testing the CXCR4 inhibitor in clinical trials to treat pancreatic cancer.</p> <p>Sanofi markets Mozobil to treat multiple myeloma (MM) and non-Hodgkin's lymphoma (NHL).</p> <p>At least nine other companies have CXCR4 antagonists in Phase II or earlier testing to treat cancers.</p> <p>SciBX 7(1); doi:10.1038/scibx.2014.15 Published online Jan. 9, 2014</p>	Patent application filed; licensing status unavailable	<p>Feig, C. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Nov. 25, 2013; doi:10.1073/pnas.1320318110</p> <p>Contact: Douglas T. Fearon, University of Cambridge, Cambridge, U.K. e-mail: dtf1000@cam.ac.uk</p>