This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Colony-stimulating factor 1 receptor (CSF1R; C-FMS; CD115); inhibitor of κ light polypeptide gene enhancer in B cells kinase-β (IKBKB; IKK2); rap guanine nucleotide exchange factor 4 (RAPGEF4; EPAC2); toll-like receptor 4 (TLR4)	*In vitro* studies suggest inhibiting a subset of kinases could improve the efficacy of the chemotherapeutic paclitaxel. In human ovarian cancer cell lines, RNAi knockdown of multiple kinases—including *CSF1R*, *IKBKB*, *RAPGEF4* and *TLR4*—increased paclitaxel-induced cytotoxicity compared with that seen using paclitaxel alone. In a paclitaxel-resistant lung carcinoma cell line, *RAPGEF4* knockdown plus paclitaxel decreased cell growth compared with paclitaxel alone. Ongoing work includes simultaneous knockdown or pharmacological inhibition of multiple kinases in paclitaxel-treated cancer cell lines and animal models of cancer. Eritoran (E5564), a synthetic lipid A analog that blocks TLR4 activation from Eisai Co. Ltd., is in Phase III testing to treat sepsis. PLX5622, a CSF1R inhibitor from Daiichi Sankyo Co. Ltd., is in Phase I testing to treat rheumatoid arthritis (RA). SAR113945, an IKBKB inhibitor from Sanofi, is in Phase I testing to treat osteoarthritis (OA). ***SciBX*** **4(36); doi:10.1038/scibx.2011.1013** **Published online Sept. 15, 2011**	Unpatented; available for licensing or partnering	Ahmed, A.A. *et al. Cancer Res.*; published online July 20, 2011; doi:10.1158/0008-5472.CAN-11-0025 **Contact:** Robert C. Bast Jr., The University of Texas M.D. Anderson Cancer Center, Houston, Texas e-mail: rbast@mdanderson.org **Contact:** Ahmed Ashour Ahmed, University of Oxford, Oxford, U.K. e-mail: ahmed.ahmed@obs-gyn.ox.ac.uk