This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Epidermal growth factor receptor (EGFR); v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog (K-RAS); seven in absentia homolog 2 (SIAH2)	Studies in cell culture and in mice suggest that inhibiting SIAH2 may be useful for treating EGFR-activated and K-RAS-activated tumors. SIAH2 is an E3 ligase required for signal transduction downstream of EGFR and K-RAS. In cultured A549 human lung carcinoma cells, small hairpin RNA knockdown of SIAH2 or overexpression of a SIAH2 mutant increased apoptosis and inhibited cell proliferation compared with what was seen in cells that received control mock shRNA or expressed control GFP. In nude mice injected with A549 carcinomas expressing the SIAH2 mutant, there was less tumor growth than that seen in mice that received carcinomas expressing control GFP. Next steps include studying how SIAH2 interacts with EGFR and K-RAS and evaluating anti-SIAH2 molecules in animal models of cancer. Erbitux cetuximab, an antibody targeting EGFR from ImClone Systems Inc., Bristol-Myers Squibb Co. and Merck KGaA, is approved for use in combination with radiation therapy to treat locally or regionally advanced squamous cell carcinoma of the head and neck (SCCHN), as a single agent to treat patients with recurrent or metastatic SCCHN for whom prior platinum-based therapy has failed and for metastatic colorectal cancer. Zactima vandetanib, an EGFR and VEGF receptor kinase inhibitor from AstraZeneca plc, is in Phase III testing to treat non-small cell lung cancer (NSCLC). Tovok, a dual inhibitor of EGFR and HER2 from Boehringer Ingelheim GmbH, is in Phase III for NSCLC. SciBX 1(43); doi:10.1038/scibx.2008.1041 Published online Dec. 4, 2008	Findings unpatented; anti-SIAH2 mAbs are available for licensing from the Mayo Clinic Health Solutions Office of Intellectual Property Contact: Catherine S. Koh, Mayo Clinic Health Solutions, Rochester, Minn. e-mail: koh.catherine@mayo.edu	Ahmed, A.U. <i>et al. J. Natl. Cancer Inst.</i> ; published online Nov. 11, 2008; doi:10.1093/jnci/djn365 Contact: Amy H. Tang, Mayo Clinic College of Medicine, Rochester, Minn. e-mail: tang.amy@mayo.edu