

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Cyclooxygenase-2 (COX-2); prostaglandin E ₂ (PGE ₂); VEGF receptor 2 (KDR/Flk-1; VEGFR-2)	<p><i>In vitro</i> and mouse studies suggest COX-2 inhibition could help treat VEGF inhibitor-resistant cancers. In mouse colon cancer cells with Vegf-independent angiogenesis, Pge₂ was identified as an angiogenesis-stimulating factor. In a mouse model of VEGF inhibitor-resistant colon cancer, an inhibitor of COX-2, which is required for PGE₂ synthesis, decreased tumor growth and angiogenesis compared with no treatment. In mouse models of colon and breast cancers, the COX-2 inhibitor Celebrex celecoxib combined with an anti-VEGFR-2 antibody or the small molecule VEGF inhibitor Inlyta axitinib more potently prevented tumor growth, angiogenesis and metastasis than any of the agents alone. Next steps include clinical trials of the therapeutic combinations.</p> <p>Pfizer Inc. markets Celebrex celecoxib to treat multiple indications including inflammation and pain.</p> <p>Inlyta axitinib from Pfizer and SFJ Pharmaceuticals Inc. is approved to treat renal cancer.</p> <p>SciBX 7(30); doi:10.1038/scibx.2014.888 Published online Aug. 7, 2014</p>	Unpatented; licensing status not applicable	<p>Xu, L. <i>et al. Sci. Transl. Med.</i>; published online June 25, 2014; doi:10.1126/scitranslmed.3008455</p> <p>Contact: Brad St. Croix, National Cancer Institute, Frederick, Md. e-mail: stcroix@ncifcrf.gov</p>