

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Sarcoma	Insulin-like growth factor 1 receptor (IGF1R; CD221); arrestin β 1 (ARRB1); MAPK (ERK)	<p>Cell culture studies suggest inhibiting ARRB1 or ERK could help increase the efficacy of IGF1R-targeting molecules. Therapeutic antibodies that exert their effect through IGF1R also can downregulate expression of the receptor, which could impede therapeutic efficacy over time. In Ewing's sarcoma cell lines treated with Pfizer Inc.'s IGF1R antibody figitumumab, IGF1R downregulation was mediated by ERK activation caused by ARRB1 recruitment. In the same cell lines, figitumumab and an ERK inhibitor decreased cell viability compared with figitumumab alone. Next steps include extending the studies to animal models of other cancers. Pfizer discontinued a Phase III trial of figitumumab in non-small cell lung cancer (NSCLC) in 2010.</p> <p>At least 14 companies have IGF1R antagonists or antibodies in development stages ranging from preclinical to marketed to treat various indications.</p> <p>SciBX 5(49); doi:10.1038/scibx.2012.1280 Published online Dec. 20, 2012</p>	Patent and licensing status undisclosed	<p>Zheng, H. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Nov. 27, 2012; doi:10.1073/pnas.1216348110</p> <p>Contact: Leonard Girnita, Karolinska Institute and Karolinska University Hospital, Stockholm, Sweden e-mail: leonard.girnita@ki.se</p>