

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Breast cancer	Estrogen receptor; LYN kinase (LYN); phosphoinositide 3-kinase (PI3K)	<p>Studies in mice and human samples suggest inhibiting LYN could help treat estrogen receptor-positive breast cancers resistant to anti-estrogen therapy. In biopsies from patients with breast cancer treated with estrogen deprivation therapy and breast cancer data sets, genome analysis identified five recurrent activating mutations in LYN. In a mouse xenograft model of estrogen receptor-positive breast cancer, the estrogen receptor antagonist Faslodex fulvestrant plus inhibition of LYN with the kinase inhibitors Sprycel dasatinib and buparlisib (BKM120) induced near-complete tumor regression and was more potent than individual agents. Next steps could include testing the triple inhibitor combination across genetically distinct estrogen receptor-positive breast cancers.</p> <p>AstraZeneca plc markets the selective estrogen receptor downregulator Faslodex to treat breast cancer.</p> <p>Bristol-Myers Squibb Co. markets Sprycel to treat acute lymphoblastic leukemia (ALL) and chronic myelogenous leukemia (CML).</p> <p>Novartis AG has buparlisib in Phase III testing to treat breast cancer.</p> <p>SciBX 7(48); doi:10.1038/scibx.2014.1399 Published online Dec. 18, 2014</p>	Patent and licensing status unavailable	<p>Schwarz, L.J. <i>et al.</i> <i>J. Clin. Immunol.</i>; published online Nov. 17, 2014; doi:10.1172/JCI72573</p> <p>Contact: Carlos L. Arteaga, Vanderbilt University, Nashville, Tenn. e-mail: carlos.arteaga@vanderbilt.edu</p>