This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Epidermal growth factor receptor 3 (EGFR3; HER3; ErbB3)	<i>In vitro</i> studies identified a bivalent, ATP-competitive HER3 antagonist that could help treat HER3-dependent cancers. In HER3-dependent lung and ovarian cancer cell lines, an acrylamide-substituted compound designed to bind Cys721 in the HER3 ATP-binding site inhibited HER3 signaling without decreasing cell proliferation. In the cancer cell lines, the same ligand conjugated to an adamantane-based tagging molecule that promotes proteasomal degradation of the bound protein induced partial degradation of HER3 and inhibited cell proliferation versus vehicle. Next steps could include optimizing the conjugate molecule's pharmacological properties. At least 10 companies have HER3 inhibitors in Phase II or earlier testing to treat various cancers. SciBX 7(44); doi:10.1038/scibx.2014.1287 Published online Nov. 13, 2014	Patent and licensing status unavailable	Xie, T. <i>et al. Nat. Chem. Biol.</i>; published online Oct. 19, 2014; doi:10.1038/nchembio.1658 Contact: Nathanael S. Gray, Dana-Farber Cancer Institute, Boston, Mass. e-mail: nathanael_gray@dfci.harvard.edu Contact: Craig M. Crews, Yale University, New Haven, Conn. e-mail: craig.crews@yale.edu Contact: Pasi A. Jänne, Dana-Farber Cancer Institute, Boston Mass. e-mail: pjanne@partners.org