This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Markers			
Mutations in the extracellular domain of HER2 (EGFR2; ErbB2; neu) as markers of susceptibility to ErbB2 inhibitors	*In vitro* studies identified oncogenic mutations in the ErbB2 extracellular domain and suggest ErbB2 inhibitors could help treat cancers that harbor such mutations. In human fibroblasts, expression of an *ErbB2* gene with an extracellular domain mutation initially identified in lung adenocarcinoma induced anchorage-dependent proliferation. In murine bone marrow cells, expression of the mutant *ErbB2* rendered cells more sensitive to ErbB2 inhibitors, including neratinib and afatinib, compared with expression of wild-type *ErbB2* or *ErbB2* with activating mutations in the kinase domain. Next steps include testing ErbB2 inhibitors in clinical trials. Pfizer Inc. and Puma Biotechnology Inc. have neratinib in clinical and preclinical testing to treat various cancers. Boehringer Ingelheim GmbH has Tomtovok afatinib in clinical testing to treat multiple cancers. At least nine other companies have ErbB2 inhibitors in development stages ranging from preclinical to marketed to treat various cancers. *SciBX* 5(37); doi:10.1038/scibx.2012.994 Published online Sept. 20, 2012	Findings unpatented; unavailable for licensing	Greulich, H. *et al. Proc. Natl. Acad. Sci. USA*; published online Aug. 20, 2012; doi:10.1073/pnas.1203201109 **Contact:** Heidi Greulich, Broad Institute of MIT and Harvard, Cambridge, Mass. e-mail: heidig@broadinstitute.org

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