This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Retroviral short hairpin RNA screen to identify genes that contribute to cancer cell proliferation and survival	A retroviral shRNA-mediated screen based on negative selection may allow rapid identification of genes that are required for cancer cell proliferation and survival. This highly parallel multiplex methodology can screen for large pools of shRNAs using half-hairpin barcodes and two-color microarray deconvolution.Retroviral delivery of 8,203 shRNAs that targeted 2,924 genes involved in multiple signaling pathways identified shRNAs with antiproliferative activity in DLD-1 and HCT116 colon cancer cells, HCC1954 breast cancer cells and normal mammary epithelial cells. Next steps include running a genome-wide screen and expanding the screen to more cell lines for further gene identification and confirmation. This functional approach to finding new cancer targets is complementary to sequenced-based approaches, such as the Cancer Genome Atlas.	Patent application filed covering the identified genetic targets; method available for licensing through Cold Spring Harbor Laboratories; licensed to companies including Merck & Co. Inc. and Genentech Inc.	Schlabach, M. *et al. Science*; published online Feb. 1, 2008; doi:10.1126/science.1149200 **Contact:** Stephen J. Elledge, Howard Hughes Medical Institute, Center for Genetics and Genomics, Brigham and Women's Hospital, Harvard Medical School, Boston, Mass. e-mail: selledge@genetics.med.harvard.edu