

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
High-coverage, single-cell genome and exome sequencing at base-pair resolution to aid biomarker identification	<p>A single-cell sequencing method with base-pair resolution, dubbed Nuc-seq, could be used to explore heterogeneity in cancer and other diseases to aid biomarker identification and guide therapeutic development. The approach relies on sequencing DNA from cells in the G2/M phase, after the genome has been replicated but before cells have divided. In a cancer cell line, about 90% sequence coverage could be attained from a single cell. In a triple-negative breast cancer sample, many mutations were only found in small subpopulations of the tumor, and the mutation rate was shown to be higher than that in an estrogen receptor-positive breast cancer sample. Next steps could include applying this technique to additional cancer types.</p> <p>SciBX 7(33); doi:10.1038/scibx.2014.993 Published online Aug. 28, 2014</p>	Patent and licensing status unavailable	<p>Wang, Y. <i>et al. Nature</i>; published online July 30, 2014; doi:10.1038/nature13600 Contact: Nicholas E. Navin, The University of Texas MD Anderson Cancer Center, Houston, Texas e-mail: nnavin@mdanderson.org</p>