This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Noninvasive whole-genome sequencing of a fetus	<p>Noninvasive whole-genome sequencing of two mother-father-child cohorts suggests the method could be useful as a prenatal genetics diagnostic. Genome sequencing and genomewide haplotyping of parental DNA obtained from blood and deep sequencing of fetal DNA from maternal plasma were combined to noninvasively determine the genome sequence of one human fetus at about 19 weeks of gestation and another at about 8 weeks of gestation. In one fetus, inheritance was predicted at 2.8×10^6 parental sites with 98.1% accuracy, and 39 of 44 point mutations were detected. In the other fetus, inheritance was predicted at maternal-only sites with 95.7% accuracy. Next steps include improving the scalability and accuracy of the method.</p> <p>SciBX 5(26); doi:10.1038/scibx.2012.687 Published online June 28, 2012</p>	Patent and licensing status undisclosed	<p>Kitzman, J.O. <i>et al. Sci. Transl. Med.</i>; published online June 6, 2012; doi:10.1126/scitranslmed.3004323 Contact: Jay Shendure, University of Washington, Seattle, Wash. e-mail: shendure@uw.edu Contact: Jacob O. Kitman, same affiliation as above e-mail: kitz@uw.edu</p>