This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Antitumor mechanism of gold nanoparticles in ovarian cancer	<p>Mouse and cell culture studies suggest gold nanoparticles could be useful for treating ovarian cancers by blocking the MAPK pathway and epithelial-to-mesenchymal transition (EMT). In three human ovarian cancer cell lines, unmodified, 20 nm gold nanoparticles had more potent antiproliferative activity than unmodified gold nanoparticles that had smaller or larger diameters. In the ovarian cancer cell lines, the 20 nm nanoparticles inhibited MAPK activation and the secretion of proteins associated with EMT. In two orthotopic mouse models for ovarian cancer, the nanoparticles decreased tumor mass compared with saline. Next steps include determining the mechanism by which the nanoparticles target cancer-associated pathways and developing methods to further enhance their efficacy.</p> <p>SciBX 6(16); doi:10.1038/scibx.2013.398 Published online April 25, 2013</p>	Unpatented; licensing status not applicable	<p>Arvizo, R.R. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online April 8, 2013; doi:10.1073/pnas.1214547110 Contact: Priyabrata Mukherjee, Mayo Medical School, Rochester, Minn. e-mail: mukherjee.priyabrata@mayo.edu</p>