This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Markers			
Transient receptor potential cation channel subfamily C member 5 (TRPC5)-containing extracellular vesicles as a marker of chemotherapy resistance in breast cancer	<p>Studies in patient samples, mice and cell culture suggest TRPC5-containing extracellular vesicles could help predict chemotherapy resistance in breast cancer. In coculture of chemoresistant and chemosensitive human breast cancer cell lines, TRPC5-containing extracellular vesicles were shown to enter chemosensitive cells and increase their resistance to chemotherapy. In cell culture and a mouse xenograft model of chemoresistant human breast cancer, siRNA against <i>TRPC5</i> decreased the release of TRPC5-containing extracellular vesicles compared with scrambled siRNA. In samples from 26 patients with breast cancer who received anthracycline- and taxane-based chemotherapy, samples from patients with a complete or partial response had lower TRPC5 expression than those from patients with progressive or stable disease. Next steps include validating TRPC5-containing vesicles as a biomarker of chemotherapy response and developing a quantitative assay for TRPC5-containing vesicles in peripheral blood.</p> <p>SciBX 7(18); doi:10.1038/scibx.2014.543 Published online May 8, 2014</p>	<p>Patented; available for licensing from Jiangnan University Contact: Zheng Jing, Jiangnan University, Wuxi, China e-mail: jingzheng@jiangnan.edu.cn</p>	<p>Ma, X. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online April 14, 2014; doi:10.1073/pnas.1400272111 Contact: Jian Jin, Jiangnan University, Wuxi, China e-mail: jnjin31@126.com Contact: Xin Ma, same affiliation as above e-mail: maxin@jiangnan.edu.cn</p>