

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Imaging			
Optical metabolic imaging for diagnosing cancer and assessing treatment response	<p>Optical metabolic imaging could help diagnose cancers and assess response to treatment. The method measures the fluorescence intensities and lifetimes of autofluorescent metabolic coenzymes. In cultured cell lines, optical metabolic imaging of untransformed human breast cells and various malignant human breast cancer subtypes revealed distinguishing differences in the basal metabolic profiles of the various cell types. In cell culture and mouse xenograft models of human breast cancer, optical metabolic imaging revealed metabolic differences in cancer cells that responded to Herceptin trastuzumab versus nonresponsive cells or cells treated with a control IgG. Next steps include validating the approach against standard clinical approaches to assess patient response and classify breast cancer subtype.</p> <p>Roche's Genentech Inc. unit markets Herceptin, a humanized mAb against HER2 (EGFR2; ErbB2; neu), to treat breast and gastric cancers.</p> <p>SciBX 6(45); doi:10.1038/scibx.2013.1307 Published online Nov. 21, 2013</p>	Patent and licensing status available from Vanderbilt University	Walsh, A.J. <i>et al. Cancer Res.</i> ; published online Oct. 15, 2013; doi:10.1158/0008-5472.CAN-13-0527 Contact: Melissa C. Skala, Vanderbilt University, Nashville, Tenn. e-mail: m.skala@vanderbilt.edu