

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Markers			
CD44, CD47, c-Met proto-oncogene (MET; HGFR) and epithelial cell adhesion molecule (EpCAM) as a signature for metastasis-initiating circulating tumor cells (CTCs) in breast cancer	<p>A protein signature specific to EpCAM⁺ CTCs associated with brain metastases could be used for diagnosis of metastatic breast cancer. EpCAM⁺ CTCs isolated from individuals with progressive metastatic breast cancer expressed CD44, CD47 and MET. In immunodeficient mice, injection of that subset of CTCs resulted in metastasis to the bone. In blood samples from patients with cancer, increased levels of EpCAM⁺ CTCs expressing CD44, CD47 and MET correlated with shorter overall survival. Next steps include genetically examining whether MET and CD47 are essential for survival and function of metastasis-initiating cells in hormone receptor-positive breast cancers and testing several MET and CD47 inhibitors on the newly established CTC lines.</p> <p>SciBX 6(18); doi:10.1038/scibx.2013.450 Published online May 9, 2013</p>	Patent application pending; available for licensing	<p>Bacelli, I. <i>et al. Nat. Biotechnol.</i>; published online April 21, 2013; doi:10.1038/nbt.2576</p> <p>Contact: Andreas Trumpp, Heidelberg Institute for Stem Cell Technology and Experimental Medicine GmbH, Heidelberg, Germany e-mail: a.trumpp@dkfz-heidelberg.de or andreas.trumpp@hi-stem.de</p>