

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Four-gene recombination proficiency score to guide the use of DNA-damaging cancer therapies	<p>Studies in patient tumor samples have identified a four-gene expression signature that could help determine prognosis and guide treatment for various cancers. The signature quantifies the efficiency of DNA repair pathways and is based on the mRNA levels of four DNA repair-associated genes—<i>RAP1 interacting factor homolog (RIF1)</i>, <i>X-ray repair complementing defective repair in Chinese hamster cells 5 (XRCC5; KU80)</i>, <i>PARP1 binding protein (PARPBP; PARI)</i> and <i>RAD51 homolog (RAD51)</i>. In tumors from patients with non-small cell lung cancer (NSCLC) treated with surgery plus DNA-damaging, platinum-based chemotherapy, a low signature score was associated with increased patient survival. Next steps include further characterizing the molecular responses associated with downregulation of the four genes.</p> <p>SciBX 7(16); doi:10.1038/scibx.2014.471 Published online April 24, 2014</p>	Provisional patent application filed; available for licensing	<p>Pitroda, S.P. <i>et al. Sci. Transl. Med.</i>; published online March 26, 2014; doi:10.1126/scitranslmed.3008291 Contact: Phillip P. Connell, The University of Chicago, Chicago, Ill. e-mail: pconnell@radonc.uchicago.edu</p>