

### This week in techniques

Approach	Summary	Licensing status	Publication and contact information
<b>Markers</b>			
<i>K-Ras</i> (KRAS) as a biomarker for mammalian target of rapamycin (mTOR; FRAP; RAFT1) inhibitor treatment	<p>Studies in mice and in patient samples suggest that screening for <i>K-Ras</i> mutations may help guide the use of mTOR inhibitors to treat cancer. In colorectal cancer xenograft mice, cell lines expressing an oncogenic <i>K-ras</i> mutation responded more poorly to the mTOR inhibitor Afinitor everolimus than cell lines expressing an empty expression vector. In a retrospective analysis of tumor tissue from 35 cancer patients treated with Afinitor, patients with a <i>K-Ras</i> mutation had greater disease progression than patients expressing wild-type <i>K-Ras</i> (<math>p=0.0171</math>). Next steps include prospective validation of this potential biomarker with a larger patient population. Afinitor is marketed by Novartis AG for the treatment of renal cell carcinoma. At least eight other companies have mTOR inhibitors in development stages ranging from preclinical to marketed to treat cancer.</p> <p><b>SciBX 3(30); doi:10.1038/scibx.2010.939</b>  <b>Published online Aug. 5, 2010</b></p>	Cell lines patented; licensing status unavailable	<p>Di Nicolantonio, F. <i>et al. J. Clin. Invest.</i>; published online July 26, 2010;            doi:10.1172/JCI37539  <b>Contact:</b> Alberto Bardelli, University of Turin Medical School, Turin, Italy            e-mail:  <a href="mailto:a.bardelli@unito.it">a.bardelli@unito.it</a></p>