This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Melanoma	Protein kinase B (PKB; PKBA; AKT; AKT1)	Studies in human tissue and cell culture suggest antagonizing AKT signaling could be useful for treating BRAF inhibitor–resistant melanoma. In 100 tumor biopsies from 44 patients with BRAF inhibitor–resistant melanoma, activating mutations in a range of AKT pathway regulators, including AKT itself, were found in 22% of resistant tumor biopsies. In cell culture, tumor cells with activating AKT mutations had higher AKT pathway signaling and greater survival in the presence of a BRAF inhibitor than controls lacking the AKT mutations. Next steps include clinical testing of AKT inhibitors in combination with inhibitors of BRAF or MAPK signaling, another pathway implicated in BRAF inhibitor–resistant melanoma. Tafinlar dabrafenib (GSK2118436) from GlaxoSmithKline plc and Zelboraf vemurafenib from Roche and Daiichi Sankyo Co. Ltd. are BRAF inhibitors marketed to treat BRAF-mutant melanoma. At least 12 companies including Roche and GSK have AKT inhibitors in preclinical through Phase II testing for a range of solid tumors including BRAF-mutant melanoma. *SciBX* 7(1); doi:10.1038/scibx.2014.13 Published online Jan. 9, 2014	Patent pending for an assay to identify tumors with activating mutations in AKT; licensing status undisclosed	Shi, H. *et al. Cancer Discov.*; published online Nov. 21, 2013; doi:10.1158/2159-8290.CD-13-0279 Shi, H. *et al. Cancer Discov.*; published online Nov. 21, 2013; doi:10.1158/2159-8290.CD-13-0642 **Contact:** Roger S. Lo, University of California, Los Angeles, Calif. e-mail: rlo@mednet.ucla.edu