This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	BRAF; eukaryotic translation initiation factor 4A1 (eIF4A1); eIF4F; MEK	<p>Studies in patient samples, mice and cell culture suggest disrupting the eIF4F complex could be useful for treating cancers resistant to BRAF and MEK inhibitors. In human melanoma cell lines and mouse xenograft models of melanoma, resistance to BRAF and MEK inhibitors was associated with persistent formation of the eIF4F complex. In a mouse xenograft model of drug-resistant melanoma, the small molecule BRAF inhibitor Zelboraf vemurafenib plus an inhibitor of the eIF4A subunit of the complex decreased tumor growth compared with the eIF4A inhibitor alone or vehicle. Drug-resistant biopsy samples from patients with melanoma showed greater eIF4F complex formation than nonresistant samples. Next steps include evaluating eIF4F inhibitors to identify a lead candidate and studying the potential for resistance to develop against such compounds.</p> <p>Daiichi Sankyo Co. Ltd. and Roche market Zelboraf to treat melanoma.</p> <p>Egenix Inc. has small molecule inhibitors of the eIF4F complex in clinical development.</p> <p>Isis Pharmaceuticals Inc. has the antisense oligonucleotide ISIS-EIF4ERx in Phase I/II testing to treat non-small cell lung cancer (NSCLC) and castration-resistant prostate cancer (CRPC).</p> <p>SciBX 7(36); doi:10.1038/scibx.2014.1066 Published online Sept. 18, 2014</p>	Patent pending; available for licensing	<p>Boussemart, L. <i>et al. Nature</i>; published online July 27, 2014; doi:10.1038/nature13572</p> <p>Contact: Stéphan Vagner, Institut National de la Santé et de la Recherche Médicale (INSERM) UMR981, Villejuif, France e-mail: stephan.vagner@inserm.fr</p> <p>Contact: Caroline Robert, same affiliation as above e-mail: caroline.robert@gustaveroussy.fr</p>