This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Lung cancer	Enhancer of zeste homolog 2 (EZH2); poly(ADP-ribose) polymerase-1 (PARP-1)	<p>A study in cell culture and in patient tissue suggests inhibiting PARP-1 or EZH2 could help treat small cell lung cancer (SCLC). SCLC cell lines expressed higher protein levels of PARP-1 and EZH2 than non-small cell lung cancer (NSCLC) cell lines. Tumor tissue from patients with SCLC had higher levels of PARP-1 protein than tumor tissue from patients with NSCLC. In SCLC cell lines, a PARP-1 inhibitor or small hairpin RNA against PARP-1 or EZH2 decreased cell proliferation compared with no treatment or control shRNA. Next steps could include testing PARP-1 or EZH2 inhibitors in mouse models of SCLC.</p> <p>At least 10 companies have preclinical or clinical programs targeting PARP-1 for cancer. Epizyme Inc. and partner Eisai Co. Ltd. have a preclinical program targeting EZH2 in breast cancer and non-Hodgkin's lymphoma (NHL). Constellation Pharmaceuticals Inc. has a discovery-stage program targeting EZH2 in cancer.</p> <p>SciBX 5(39); doi:10.1038/scibx.2012.1030 Published online Oct. 4, 2012</p>	Patent and licensing status unavailable	<p>Byers, L.A. <i>et al. Cancer Discov.</i>; published online Sept. 6, 2012; doi:10.1158/2159-8290.CD-12-0112</p> <p>Contact: John V. Heymach, The University of Texas MD Anderson Cancer Center, Houston, Texas</p> <p>e-mail: jvheymach@mdanderson.org</p> <p>Contact: Lauren Averett Byers, same affiliation as above</p> <p>e-mail: lbyers@mdanderson.org</p>