This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Lung cancer	MicroRNA-31 (miR-31); LATS large tumor suppressor homolog 2 (LATS2); protein phosphatase 2 regulatory subunit B α -isoform (PPP2R2A); protein phosphatase 2 (PPP2CA; PP2A)	Studies in primary tumors, in cell culture and in mice suggest that inhibiting miR-31 could help treat lung cancer. miR-31 was overexpressed in primary human lung cancers compared with in normal lung tissue. In human cancer cell lines, as compared with in control cells, knockdown of miR-31 reduced cell growth, whereas concurrent knockdown of miR-31 and one of two tumor suppressors targeted by miR-31, <i>LATS2</i> and <i>PPP2R2A</i>, promoted cell growth. Mice injected with an miR-31-knockdown lung cancer cell line developed fewer lung lesions than mice injected with unmodified cancer cells. Ongoing work includes identifying locked nucleic acid (LNA) inhibitors of miR-31 in collaboration with Santaris Pharma A/S. Lixte Biotechnology Holdings Inc. has the PP2A inhibitors LB-100 and LB-102 in preclinical testing to treat cancer. SciBX 3(11); doi:10.1038/scibx.2010.342 Published online March 18, 2010	Patent application filed by the Trustees of Dartmouth College and the University of Copenhagen; available for licensing Contact: Alla Kan, Technology Transfer Office, Dartmouth College, Hanover, N.H. e-mail: alla.kan@dartmouth.edu	Liu, X. <i>et al. J. Clin. Invest.</i>; published online March 8, 2010; doi:10.1172/JCI39566 Contact: Ethan Dmitrovsky, Dartmouth Medical School, Hanover, N.H. e-mail: ethan.dmitrovsky@dartmouth.edu