

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Lung cancer	Phosphoinositide 3-kinase (PI3K); mitogen-activated protein kinase kinase (MEK)	<p>Studies in mice suggest that PI3K inhibitors may be useful for treating lung cancers with activating mutations in PI3K's catalytic subunit, whereas combining PI3K inhibitors with MEK inhibitors could help treat lung cancers with acting mutations in K-RAS. In a mouse model of lung cancer that expressed a mutated form of the PI3K catalytic subunit in the lung epithelium, the dual PI3K-mTOR inhibitor NVP-BEZ235 lowered tumor size compared with the effect of placebo. In mice with lung cancer expressing mutant K-Ras, NVP-BEZ235 did not lower tumor volumes. However, in the same models, co-treatment with NVP-BEZ235 and the MEK inhibitor ARRY-142886 led to greater tumor regression than that seen using placebo or either agent alone. Next steps include individual Phase I trials of both agents to determine their toxicity and dosing profile before starting a combination therapy trial. NVP-BEZ235 from Novartis AG is in Phase I testing to treat cancer. ARRY-142886 (AZD6244) from Array BioPharma Inc. and AstraZeneca plc is in Phase II testing to treat various cancers.</p> <p>SciBX 1(45); doi:10.1038/scibx.2008.1097 Published online Dec. 18, 2008</p>	Patent application filed; available for licensing	<p>Engelman, J. <i>et al. Nat. Med.</i>; published online Nov. 30, 2008; doi:10.1038/nm.1890</p> <p>Contact: Kwok-Kin Wong, Harvard Medical School, Boston, Mass. e-mail: kwong1@partners.org</p> <p>Contact: Lewis C. Cantley, same affiliation as above e-mail: lewis_cantley@hms.harvard.edu</p>