This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Colon cancer	Eukaryotic translation initiation factor 4E binding protein 1 (eIF4EBP1); phosphoinositide 3-kinase (PI3K); Ras	<p>A study in mice suggests that decreasing eIF4EBP1 phosphorylation could help treat colon cancer. In a mouse model of colon cancer with PI3K- and Ras-activating mutations, tumor cells expressing an eIF4EBP1 mutant that could not be phosphorylated had less growth than tumor cells expressing wild-type eIF4EBP1 ($p < 0.01$). In four different colon cancer mouse models with activation of both the PI3K and Ras pathways, a PI3K pathway inhibitor plus a Ras pathway inhibitor decreased eIF4ebp1 phosphorylation and lowered tumor growth compared with either inhibitor alone. Next steps include determining the optimal combination of PI3K and Ras pathway inhibitors for reducing eIF4EBP1 phosphorylation in preclinical cancer models.</p> <p>Array BioPharma Inc. and partner AstraZeneca plc are developing ARRY-886, an inhibitor of mitogen-activated protein kinase kinase (MEK), which is part of the Ras pathway. The compound is in Phase II trials for colorectal cancer.</p> <p>Aeterna Zentaris Inc. and partner Keryx Biopharmaceuticals Inc. are developing perifosine (KRX-0401), an inhibitor of protein kinase B (PKB; Akt), which is part of the PI3K pathway. The compound is in Phase III trials for colorectal cancer.</p> <p>Aeterna Zentaris' AEZS-132, a PI3K inhibitor, is in preclinical studies for colorectal cancer.</p> <p>SciBX 3(29); doi:10.1038/scibx.2010.892 Published online July 29, 2010</p>	Patent and licensing status undisclosed	<p>She, Q.-B. <i>et al. Cancer Cell</i>; published online July 13, 2010; doi:10.1016/j.ccr.2010.05.023</p> <p>Contact: Neal Rosen, Memorial Sloan-Kettering Cancer Center, New York, N.Y. e-mail: rosenn@mskcc.org</p>