This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Signal transducer and activator of transcription 3 (STAT3)	<p><i>In vitro</i> and mouse studies suggest a new STAT3 inhibitor could help treat cancer. Fragment-based drug design was used to create a series of STAT3 inhibitors. In a panel of human cancer cell lines, a lead naphthalene-sulfonamide analog inhibited STAT3 phosphorylation with nanomolar to low micromolar IC₅₀ values. In a mouse xenograft model for human breast cancer, the lead compound decreased tumor growth compared with vehicle. Ongoing work includes testing the lead compound in mouse models for sarcoma and pancreatic cancer.</p> <p>Isis Pharmaceuticals Inc. and AstraZeneca plc have ISIS-STAT3Rx, an antisense inhibitor of STAT3, in Phase II testing to treat cancer.</p> <p>Otsuka Pharmaceutical Co. Ltd.'s OPB-31121, an inhibitor of STAT3 phosphorylation, is in Phase I testing to treat cancer.</p> <p>GLG Pharma LLC has at least four inhibitors of activated STAT3 or STAT3 phosphorylation in preclinical testing to treat cancer.</p> <p>SciBX 6(21); doi:10.1038/scibx.2013.516 Published online May 30, 2013</p>	Patent application filed by The Ohio State University; available for licensing	<p>Yu, W. <i>et al. J. Med. Chem.</i>; published online May 7, 2013; doi:10.1021/jm400080c Contact: Chenglong Li, The Ohio State University, Columbus, Ohio e-mail: li.728@osu.edu</p>