

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Prostate cancer	Signal transducer and activator of transcription 3 (STAT3)	<p><i>In vitro</i> studies suggest inhibiting STAT3 with galiellalactone could be useful for treating prostate cancer. Previous studies identified galiellalactone as a small molecule inhibitor of STAT3-driven prostate cancer growth, but its mechanism of action was undefined. <i>In vitro</i>, a biotinylated analog of galiellalactone bound covalently to STAT3 and blocked its binding to DNA. Next steps include animal studies to optimize galiellalactone dosing alone and in combination with other therapies for castration-resistant prostate cancer caused by excessive STAT3 activity.</p> <p>Glactone Pharma AB has galiellalactone analogs in preclinical development for prostate cancer. Isis Pharmaceuticals Inc. and AstraZeneca plc have AZD9150, an antisense oligonucleotide targeting STAT3, in Phase I/II testing for various cancers.</p> <p>Otsuka Pharmaceutical Co. Ltd. has the small molecule STAT3 inhibitor OPB-31121 in Phase I trials for solid tumors.</p> <p>SciBX 7(21); doi:10.1038/scibx.2014.613 Published online May 29, 2014</p>	Patented; licensed to Glactone Pharma	<p>Don-Doncow, N. <i>et al. J. Biol. Chem.</i>; published online April 22, 2014; doi:10.1074/jbc.M114.564252</p> <p>Contact: Rebecka Hellsten, Lund University, Lund, Sweden e-mail: rebecka.hellsten@med.lu.se</p>