

### This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Cancer</b>				
Brain cancer	CpG island methylation; polycomb repressive complex 2 (PRC2); enhancer of zeste homolog 2 (EZH2)	<p>Patient sample, cell culture and mouse studies suggest EZH2 inhibitors could help treat certain forms of ependymomas. In tumor samples from patients with posterior fossa ependymoma, DNA methylation pattern analysis showed that a subgroup of samples isolated from patients with poor prognosis had a greater amount of CpG island methylation than other samples. In two mouse models of ependymoma from this subgroup, a compound that targets the EZH2-containing complex PRC2 decreased tumor volume and increased survival compared with vehicle. In cell cultures derived from this subgroup, the EZH2 inhibitor GSK343 decreased H3K27 methylation compared with an inactive compound and derepressed PRC2-regulated genes. Next steps could include Phase I trials to treat patients with poor prognosis.</p> <p>GSK343 is available as a chemical probe through the Structural Genomics Consortium.</p> <p>Epizyme Inc.'s selective EZH2 inhibitor, E7438, is in Phase I/II testing to treat lymphomas.</p> <p>Constellation Pharmaceuticals Inc., GlaxoSmithKline plc and Novartis AG also have EZH2 discovery programs.</p> <p><b>SciBX 7(11); doi:10.1038/scibx.2014.309</b>  <b>Published online March 20, 2014</b></p>	Patent and licensing status unavailable	<p>Mack, S.C. <i>et al. Nature</i>; published online Feb. 19, 2014;            doi:10.1038/nature13108  <b>Contact:</b> M.D. Taylor, The Hospital for Sick Children, Toronto, Ontario, Canada            e-mail: <a href="mailto:mdtaylor@sickkids.ca">mdtaylor@sickkids.ca</a>  <b>Contact:</b> Andrey Korshunov, German Consortium for Translational Cancer Research, Heidelberg, Germany            e-mail: <a href="mailto:andrey.korshunov@med.uni-heidelberg.de">andrey.korshunov@med.uni-heidelberg.de</a></p>