

### This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
<b>Various</b>				
Various	BET bromodomain proteins	<p><i>In vitro</i> studies suggest inhibiting distinct bromodomains within BET bromodomain-containing proteins could have distinct therapeutic effects. Thermal shift assays, binding studies and crystallization of BET inhibitor RVX-208 with 44 human bromodomains found the compound targets bromodomain 2 vs. bromodomain 1 with about 20-fold selectivity and that it displaced BET proteins from chromatin. In cells treated with RVX-208 or pan-BET inhibitors that act on both domains, RVX-208 had a much weaker effect on gene expression than the pan-BET inhibitors, suggesting a distinct mechanism of action. Next steps could include further distinguishing the effect of inhibiting bromodomain 2 vs. bromodomain 1 <i>in vivo</i>. Resverlogix Corp.'s selective BET inhibitor, RVX-208, has completed two Phase IIb trials to treat cardiovascular disease. The company has spun out Zenith Epigenetics Corp. to further develop selective BET inhibitors.</p> <p>At least four companies have BET inhibitors in Phase I trials to treat cancer.</p> <p><b>SciBX 7(1); doi:10.1038/scibx.2014.29</b>  <b>Published online Jan. 9, 2014</b></p>	RVX-208 patented by Resverlogix; partnering status unavailable	<p>Picaud, S. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Nov. 18, 2013; doi:10.1073/pnas.1310658110</p> <p><b>Contact:</b> Panagis Filippakopoulos, University of Oxford, Oxford, U.K.  e-mail: <a href="mailto:panagis.filippakopoulos@sgc.ox.ac.uk">panagis.filippakopoulos@sgc.ox.ac.uk</a></p> <p><b>Contact:</b> Stefan Knapp, same affiliation as above  e-mail: <a href="mailto:stefan.knapp@sgc.ox.ac.uk">stefan.knapp@sgc.ox.ac.uk</a></p>