

### This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
<b>Infectious disease</b>				
HIV/AIDS	HIV gp41	<p><i>In vitro</i> studies suggest conjugates of saponin, a class of antiviral natural products, and a peptide from Fuzeon enfuvirtide could help treat HIV/AIDS. Chemical synthesis and <i>in vitro</i> testing of conjugates of an HIV gp41-binding peptide from Fuzeon linked to saponin analogs identified multiple conjugates that inhibited HIV-1 env-mediated cell-cell fusion at nanomolar EC<sub>50</sub> values. In HIV-infected human T cells, treatment within one hour of infection with the lead conjugate or Retrovir zidovudine decreased viral replication to comparable extents. The lead conjugate also exhibited activity against a panel of Fuzeon-resistant and -sensitive HIV-1 strains. Next steps could include optimizing the potency and pharmacokinetic properties of the conjugates.</p> <p>GlaxoSmithKline plc and Roche market the nucleoside reverse transcriptase inhibitor Retrovir zidovudine to treat HIV/AIDS. Synageva BioPharma Corp. and Roche market Fuzeon enfuvirtide, a viral fusion inhibitor peptide analog based on HIV gp41, to treat HIV/AIDS.</p> <p><b>SciBX 7(40); doi:10.1038/scibx.2014.1182</b>  <b>Published online Oct. 16, 2014</b></p>	Patent and licensing status unavailable	<p>Wang, C. <i>et al.</i> <i>J. Med. Chem.</i>; published online Aug. 26, 2014; doi:10.1021/jm500763m  <b>Contact:</b> Keliang Liu, Beijing Institute of Pharmacology &amp; Toxicology, Beijing, China                      e-mail: <a href="mailto:keliangliu55@126.com">keliangliu55@126.com</a>  <b>Contact:</b> Shibo Jiang, Fudan University, Shanghai, China                      e-mail: <a href="mailto:shibojiang@fudan.edu.cn">shibojiang@fudan.edu.cn</a></p>