This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Kaposi's sarcoma; lymphoma	Toll-like receptor 7 (TLR7); TLR8	<p>Studies in cell culture suggest that agonizing TLR7 and TLR8 could help treat Kaposi's sarcoma-associated herpesvirus (KSHV) infection. KSHV causes Kaposi's sarcoma and primary effusion lymphoma. In cells with latent KSHV infections, separate treatment with TLR7- and TLR8-activating ligands increased KSHV replication compared with vehicle treatment. By activating the KSHV lytic replication cycle, the TLR7 and TLR8 ligands potentially made the virus targetable using anti-viral therapy. Next steps include determining if TLRs play a role in KSHV activation in additional cell types.</p> <p>Aldara imiquimod, a 5% imiquimod cream and immune-response modifier targeting TLR7 from Meda AB and Graceway Pharmaceuticals LLC, is marketed to treat basal cell carcinoma (BCC).</p> <p>ANA773, a prodrug of a TLR7 agonist from Anadys Pharmaceuticals Inc., is in Phase I testing for cancer and HCV infection.</p> <p>VTX-2337, a small molecule TLR8 agonist from VentiRx Pharmaceuticals Inc., is in Phase I testing for cancer.</p>	Work unpatented; available for licensing from The University of North Carolina at Chapel Hill	<p>Gregory, S.M. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online June 29, 2009; doi:10.1073/pnas.0905316106</p> <p>Contact: Blossom Damania, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. e-mail: damanian@med.unc.edu</p>
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