This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Other				
Adjuvant	Toll-like receptor 9 (TLR9)	<p><i>In vitro</i>, mouse and primate studies suggest a CpG DNA nanoparticle wrapped in the polysaccharide schizophyllan could be used as a vaccine adjuvant that activates B cells and plasmacytoid dendritic cells (pDCs). The K3-SPG nanoparticle incorporated CpG DNAs, which are TLR9 agonists that activate B cells, in complex with soluble β-glucan schizophyllan. In mice injected with antigen, co-injection with the K3-SPG adjuvant increased Tlr9-dependent pDC activation compared with co-injection with the CpG DNA without schizophyllan. In mice and cynomolgus monkeys immunized against influenza, the adjuvant increased antibody titers compared with CpG DNA without schizophyllan. Next steps include collaboration with a pharmaceutical company for preclinical and clinical development.</p> <p>SciBX 7(10); doi:10.1038/scibx.2014.290 Published online March 13, 2014</p>	Patent application filed; unavailable for licensing	<p>Kobiyama, K. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Feb. 10, 2014; doi:10.1073/pnas.1319268111 Contact: Ken J. Ishii, National Institute of Biomedical Innovation, Osaka, Japan e-mail: kenishii@biken.osaka-u.ac.jp</p>