This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Unadapted, pathogenic simian/human immunodeficiency viruses (SHIVs) to model AIDS	<p>Nonhuman primate studies suggest that newly generated mucosally transmittable SHIV strains could help model AIDS and screen for prophylactic interventions. SHIVs were generated by cloning various HIV-1 env sequences into proviral SHIV plasmids and propagating the viruses in a CC chemokine receptor 5 (CCR5; CD195)⁺ T cell line. Two CD8⁺ T cell-depleted nonhuman primates inoculated with a CCR5-tropic SHIV cocktail or a patient-derived SHIV cocktail developed AIDS-like disease, and only two env-expressing SHIVs were detected in both animals. In nonhuman primates, pretreatment with the broadly neutralizing anti-HIV mAb candidate PGT121 prevented the development of viremia following intrarectal SHIV challenge in the six tested animals, whereas all animals receiving control IgG plus SHIV challenge developed viremia. Next steps include using nonhuman primates infected with the new SHIVs to evaluate anti-HIV-1 vaccines and mAbs for prevention and treatment of infection. The International AIDS Vaccine Initiative and Theraclone Sciences Inc. are collaborating on PGT121 and additional anti-HIV antibodies.</p> <p>SciBX 7(38); doi:10.1038/scibx.2014.1134 Published online Oct. 2, 2014</p>	Unpatented; licensing status not applicable	<p>Del Prete, G.Q. <i>et al. Cell Host Microbe</i>; published online Sept. 10, 2014; doi:10.1016/j.chom.2014.08.003 Contact: Theodora Hatzioannou, The Rockefeller University, New York, N.Y. e-mail: thatziio@adarc.org Contact: Jeffrey D. Lifson, Frederick National Laboratory for Cancer Research, Frederick, Md. e-mail: lifsonj@mail.nih.gov</p>