This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Disease models			
Humanized mouse model for liver-stage malaria infection	<p>Mice with humanized livers could be useful for identifying compounds that target the liver stage of human malarial strain <i>Plasmodium falciparum</i>. In the mice, <i>recombination activating gene 2</i> (<i>Rag2</i>) and <i>IL-2 receptor γ-chain</i> (<i>Cd132</i>) were deleted to generate immunodeficiency, while <i>fumarylacetoacetate hydrolase</i> (<i>Fah</i>) was deleted to kill liver cells. The mice were then repopulated with human hepatocytes. Following injection of <i>P. falciparum</i> sporozoites, the triple-knockout mice developed liver-stage infection. When the triple-knockout mice were crossed with nonobese diabetic (NOD) mice, the resulting mice supported transplantation of human red blood cells and allowed study of liver-stage to blood-stage infection dynamics. Next steps include using the mice to test compounds targeting liver-stage parasites.</p> <p>SciBX 5(38); doi:10.1038/scibx.2012.1015 Published online Sept. 27, 2012</p>	Patented; available for purchase from Yecuris Corp.	<p>Vaughan, A.M. <i>et al. J. Clin. Invest.</i>; published online Sept. 10, 2012; doi:10.1172/JCI62684</p> <p>Contact: Stefan H.I. Kappe, Seattle Biomedical Research Institute, Seattle, Wash. e-mail: stefan.kappe@seattlebiomed.org</p>