This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Computational models			
Predicting emergence of drug-resistant HCV in response to protease inhibitor therapy	<p>A model that predicts the emergence of drug-resistant HCV following treatment could lead to better antiviral regimens for the disease. A probability model predicted that at least one drug-resistant HCV mutation would occur during a course of anti-HCV therapy. The results of the model agreed with the observed emergence of antiviral resistance in 12 patients treated with either the HCV protease inhibitor telaprevir or a combination of telaprevir and PEGylated interferon-α. Ongoing work includes developing a model that tracks the emergence of individual drug-resistant mutations of HCV.</p> <p>Telaprevir (VX-950; MP-424) is a small molecule HCV non-structural protein 3 (NS3) protease inhibitor from Vertex Pharmaceuticals Inc. Vertex owns North American rights to the compound and has granted Johnson & Johnson rights in Europe, South America, the Middle East, Africa and Australia, while Mitsubishi Tanabe Pharma Corp. has rights in certain Asian countries.</p> <p>SciBX 3(19); doi:10.1038/scibx.2010.600 Published online May 13, 2010</p>	Unpatented; unlicensed	<p>Rong, L. <i>et al. Sci. Transl. Med.</i>; published online May 5, 2010; doi:10.1126/scitranslmed.3000544</p> <p>Contact: Alan S. Perelson, Los Alamos National Laboratory, Los Alamos, N.M. e-mail: asp@lanl.gov</p>