This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
High throughput screening of T cell receptor (TCR) to detect minimal residual disease (MRD) in T cell acute lymphoblastic leukemia (T-ALL)	<p>High throughput screening of lymphoid receptor genes could help guide diagnosis and prognosis in T-ALL. In samples from 43 patients with T-ALL taken before chemotherapy, sequencing the T cell receptor β-chain (TCRB) detected clonal rearrangements in 31 samples. In this subset of patients, sequencing of TCRB in samples taken after chemotherapy detected clonal rearrangements in 22 of 31 cases, suggesting MRD. Conventional flow cytometry only detected MRD in 10 of the 31 cases. In the samples, TCRB rearrangements correlated with less aggressive T-ALL phenotypes. Next steps include expanding the patient population, following the patients for a longer period of time and correlating MRD detection with survival.</p> <p>SciBX 5(21); doi:10.1038/scibx.2012.560 Published online May 24, 2012</p>	Patent applications filed covering the screening technology, called immunoSEQ; exclusively licensed to Adaptive Biotechnologies Corp.	<p>Wu, D. <i>et al. Sci. Transl. Med.</i>; published online May 16, 2012; doi:10.1126/scitranslmed.3003656 Contact: Harlan Robins, Fred Hutchinson Cancer Research Center, Seattle, Wash. e-mail: hrobins@fhcrc.org Contact: Brent L. Wood, University of Washington, Seattle, Wash. e-mail: woodbl@u.washington.edu</p>