This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Test for responsiveness to interferon- β (IFN β ; IFN- β) therapy in multiple sclerosis (MS)	<p>A study in patient samples and in mice suggests that cytokine profiling could help determine responsiveness to IFNβ therapy for MS. In a mouse model of T helper type 1 (Th1) cell-induced experimental autoimmune encephalitis (EAE), IFNβ significantly reduced disease severity compared with control phosphate-buffered saline ($p < 0.05$). In contrast, in a Th17 cell-induced EAE mouse model, IFNβ significantly increased disease severity compared with the same control ($p < 0.05$). In serum samples from 26 patients, nonresponders to IFNβ therapy had significantly higher IL-17F and endogenous IFNβ levels than responders ($p < 0.001$ and $p < 0.002$, respectively). Next steps include conducting validation studies in a larger pool of patient samples and evaluating additional markers for their ability to predict responsiveness to IFNβ therapy.</p> <p>Marketed IFNβs for MS include Avonex interferon beta-1a from Biogen Idec Inc., Rebif interferon beta-1a from Merck KGaA and Pfizer Inc. and Betaferon interferon beta-1b from Novartis AG and Bayer AG.</p> <p>SciBX 3(14); doi:10.1038/scibx.2010.448 Published online April 8, 2010</p>	Patent application filed covering a blood test that would distinguish between responders and nonresponders to IFN β therapy; available for licensing from Stanford University's Office of Technology Licensing	<p>Axtell, R.C. <i>et al. Nat. Med.</i>; published online March 28, 2010; doi:10.1038/nm.2110</p> <p>Contact: Lawrence Steinman, Stanford University School of Medicine, Stanford, Calif. e-mail: steinman@stanford.edu</p>