This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Screening for biological activity of alternative splicing protein products of aminoacyl tRNA synthetases (AARSs)	<p><i>In vitro</i> studies suggest proteins formed from alternative splicing of AARSs could be new therapeutics and therapeutic targets. PCR and deep sequencing studies of AARS gene transcripts identified splice variants for each AARS that lost normal catalytic function but gained new biologic activity. In a panel of primary human cell-based assays, new biological functions of the alternatively spliced proteins were identified, such as the ability to stimulate skeletal muscle fiber formation. Next steps could include identifying specific protein variants that have potential as drugs or drug targets.</p> <p>aTyr Pharma Inc. is developing therapeutics based on physiocrine biology to treat rare diseases. Resokine, a protein therapy based on noncanonical functions of secreted forms of AARSs, is in Phase I testing to treat rare diseases related to the immune system.</p> <p>SciBX 7(31); doi:10.1038/scibx.2014.935 Published online Aug. 14, 2014</p>	Patent applications filed by aTyr Pharma and collaborators; available for licensing	<p>Lo, W.-S. <i>et al. Science</i>; published online July 18, 2014; doi:10.1126/science.1252943 Contact: Paul Schimmel, Hong Kong University of Science and Technology, Hong Kong, China e-mail: schimmel@scripps.edu</p>