

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Bacterial reporter system to identify DNA-binding transcription factors	<p><i>In vitro</i> studies suggest that a bacterial one-hybrid reporter vector system could be used to identify new targets to treat bacterial infection. Unlike other bacterial one-hybrid systems, the reporter vector is compatible with other nonbacterial libraries. Using promoter regions of <i>Mycobacterium tuberculosis</i> genes, the system identified about 100 unknown interactions between transcriptional regulators and DNA sequences involved in essential processes for bacterial growth. One of the key targets was a transcription factor, transcriptional regulatory protein WHIB-like (WHIB3), that binds to the promoter sequence of many <i>in vivo</i>-induced genes when <i>M. tuberculosis</i> invades macrophages. Next steps include designing compounds to alter the interaction between genes and target promoters.</p> <p>SciBX 2(9); doi:10.1038/scibx.2009.380 Published online March 5, 2009</p>	Screening technique and drug target patented by Huazhong Agricultural University; unavailable for licensing	<p>Guo, M. <i>et al. Genome Res.</i>; published online Feb. 28, 2009; doi:10.1101/gr.086595.108</p> <p>Contact: Zheng-Guo He, Huazhong Agricultural University, Wuhan, China e-mail: hezhennguo@mail.hzau.edu.cn</p>