

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Intracellularly expressed antibodies linked to the E3 ubiquitin ligase domain of STIP1 homology and U-box containing protein 1 (STUB1; CHIP) to enable targeted protein degradation	<p><i>In vitro</i> and cell culture studies suggest intracellular expression of antibodies linked to the E3 ubiquitin ligase domain of CHIP could promote ubiquitin-mediated degradation of target proteins. <i>In vitro</i>, an E3 ubiquitin ligase domain-linked single-chain variable fragment (scFv) specific for a model target protein caused ubiquitination of the protein. In cultured mammalian cells, plasmid-based expression of an E3 ubiquitin ligase domain-linked antibody-like protein led to degradation of a plasmid-expressed protein from <i>Escherichia coli</i>. Next steps include developing extracellular or transgenic delivery methods and testing the effect of the molecules, called ubiquibodies, on disease-associated proteins in cell culture.</p> <p>GlaxoSmithKline plc and Arvinas Inc. each have discovery stage programs to find small molecules that promote ubiquitin-mediated protein degradation.</p> <p>SciBX 7(7); doi:10.1038/scibx.2014.211 Published online Feb. 20, 2014</p>	Patent pending; being licensed to Ubiquizyme Inc.	Portnoff, A.D. <i>et al.</i> <i>J. Biol. Chem.</i> ; published online Jan. 28, 2014; doi:10.1074/jbc.M113.544825 Contact: Matthew P. DeLisa, Cornell University, Ithaca, N.Y. e-mail: md255@cornell.edu