This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Improving drug-like properties of protein therapeutics through peptide extensions that interact with the Fc fragment of IgG receptor transporter- α (FCGRT; FCRN)	Peptide extensions that promote the interaction of proteins with FCRN could improve the drug-like properties of protein therapeutics. Some protein therapeutics are conjugated to the Fc domain of IgG, which interacts with FCRN, to increase plasma half-life, but the large size of the resulting fusion protein can interfere with tissue penetration and biological activity. In a proof-of-principle experiment, short peptide sequences that compete with IgG for binding to FCRN were conjugated to the N-terminal and/or C-terminal ends of a fluorescent protein. In cell culture, the peptide-based fusion proteins were internalized and transcytosed across a cell monolayer, which is similar to what is seen with IgG fusions. Next steps include testing peptide-modified protein therapeutics in animal models.	Patent application filed; available for licensing	Sockolosky, J.T. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; Sept. 18, 2012; doi:10.1073/pnas.1208857109 Contact: Francis C. Szoka, University of California, San Francisco, Calif. e-mail: szoka@cgl.ucsf.edu
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