This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Ferrous iron (Fe ^{II})-dependent drug delivery system	<p>Mouse studies suggest an Fe^{II}-dependent delivery system could be useful for selectively targeting drugs to diseased tissues. The system involves conjugating a drug to a linker molecule and a 1,2,4-trioxolane ring that undergoes fragmentation in the presence of Fe^{II}. In <i>Plasmodium berghei</i>-infected mice, a conjugate carrying an irreversible inhibitor of <i>Plasmodium</i> dipeptidyl aminopeptidase 1 (dpap1) selectively targeted infected red blood cells and showed more persistent inhibition of the parasitic enzyme than unconjugated inhibitor. In <i>P. berghei</i>-infected mice, the conjugate decreased parasitemia and showed increased safety compared with unconjugated inhibitor. Next steps include developing an optimized version of the delivery system and evaluating it for the delivery of drugs to treat malaria and cancer.</p> <p>SciBX 6(44); doi:10.1038/scibx.2013.1276 Published online Nov. 14, 2013</p>	<p>Patent application filed; available for licensing from the University of California, San Francisco Office of Innovation, Technology & Alliances</p>	<p>Deu, E. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Oct. 21, 2013; doi:10.1073/pnas.1312782110 Contact: Matthew Bogyo, Stanford University School of Medicine, Stanford, Calif. e-mail: mbogyo@stanford.edu Contact: Adam R. Renslo, University of California, San Francisco, Calif. e-mail: adam.renslo@ucsf.edu</p>