This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Chemistry			
Photosensitive small molecule-mediated cleavage of RNA	<p>Photosensitive small molecules that bind and cleave RNA could help treat diseases driven by aberrant RNA transcripts, such as myotonic dystrophy type 1 (DM1). DM1 is caused by expanded r(CUG) repeats in dystrophin myotonic-protein kinase (DMPK) mRNA. An <i>N</i>-hydroxypyridine-2(1<i>H</i>)-thione was developed that specifically bound expanded DMPK mRNA and released hydroxyl radicals that cleaved r(CUG) repeats when photoactivated. In cell culture studies, the compound improved a DM1-associated splicing defect and decreased the level of expanded r(CUG) repeats compared with an r(CUG) repeat-binding control compound. Next steps include developing photoactivated small molecules that can target cancer-associated RNA in tumors.</p> <p>SciBX 6(3); doi:10.1038/scibx.2013.68 Published online Jan. 24, 2013</p>	Covered by issued and pending patents; available for licensing; undisclosed aspects of technology licensed by SMaRT Therapeutics Inc.	<p>Guan, L. & Disney, M.D. <i>Angew. Chem. Int. Ed.</i>; published online Dec. 20, 2012; doi:10.1002/anie.201206888 Contact: Matthew D. Disney, Scripps Florida, Jupiter, Fla. e-mail: disney@scripps.edu</p>