This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Structure-guided design of concentrative nucleoside transporter (CNT)-mediated therapies	<p>Structural data on CNTs could guide the design of new drugs that exploit the transporter to enter cells. The crystal structure of <i>Vibrio cholerae</i> CNT (vccnt) was solved and equilibrium binding values of uridine to the transporter were measured <i>in vitro</i>. The data suggested that CNTs interact with the ribose moiety or nitrogenous base of a nucleoside and identified amino acid F366 and the transmembrane helix TM7 as key mediators of nucleoside recognition. The data were used to chemically modify the nucleoside analog chemotherapy drug gemcitabine to improve its transport by and selectivity for a single human CNT subtype. Next steps include testing the activity of the modified nucleoside analog as well as modifying additional compounds for enhanced transport via the CNT.</p> <p>SciBX 7(38); doi:10.1038/scibx.2014.1137 Published online Oct. 2, 2014</p>	Unpatented; licensing status not applicable	<p>Johnson, Z.L. <i>et al.</i> <i>eLife</i>; published online July 31, 2014; doi:10.7554/eLife.03604 Contact: Seok-Yong Lee, Duke University Medical Center, Durham, N.C. e-mail: sylee@biochem.duke.edu</p>