

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Chemistry			
Improved circulatory half-life of therapeutic proteins with post-translational sialic acid additions	<i>In vitro</i> and mouse studies identified a method to link sialic acid groups to proteins that could increase the half-life of protein therapeutics. In culture, bacterial sialyltransferase and polysialyltransferase enzymes were used to add sialic acid to the N-linked glycan of α_1 -antitrypsin (AAT; A ₁ AT; SERPINA1). In mice, the polysialylated A ₁ at had 18-fold better bioavailability and a 27-hour increase in half-life compared with unmodified A ₁ at. Next steps include testing the strategy on other proteins.	Patent application filed in the U.S. for use of polysialyltransferase in protein modification; nonexclusively licensed by Novo Nordisk A/S; available for licensing	Lindhout, T. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; published online April 18, 2011; doi:10.1073/pnas.1019266108 Contact: Warren W. Wakarchuk, National Research Council Canada, Ottawa, Ontario, Canada e-mail: warren.wakarchuk@nrc-cnrc.gc.ca
	SciBX 4(17); doi:10.1038/scibx.2011.496 Published online April 28, 2011		