

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Small molecule-mediated <i>ex vivo</i> expansion of long-term repopulating progenitor cells in cord blood-derived hematopoietic stem cells (HSCs)	<p>A small molecule could enhance the number of HSCs with long-term repopulating capacity in cord blood-derived HSC transplants. Current methods for expanding cord blood-derived HSCs preferentially enhance the number of short-term repopulating cells. Library screening, chemical synthesis and testing in a human cord blood cell culture identified a pyrimidoindole analog that increased the number of long-term repopulating HSCs by 13-fold compared with vehicle. In mice, transplantation of human cord blood-derived HSCs pretreated with the analog increased long-term repopulating HSCs in bone marrow at 30 weeks post-transplant compared with transplantation of HSCs pretreated with vehicle. Next steps could include testing analog-pretreated HSC transplants in animal models of hematological disease.</p> <p>SciBX 7(40); doi:10.1038/scibx.2014.1193 Published online Oct. 16, 2014</p>	Patent and licensing status unavailable	<p>Fares, I. <i>et al. Science</i>; published online Sept. 19, 2014; doi:10.1126/science.1256337 Contact: Guy Sauvageau, University of Montreal, Montreal, Quebec, Canada e-mail: guy.sauvageau@umontreal.ca</p>