

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Expansion of primitive, CD34 ⁺ cord blood cells with histone deacetylase (HDAC) inhibitors	<p>Mouse and <i>ex vivo</i> studies suggest HDAC inhibitors could be used to expand functional cord blood stem cells for transplant. In serum-free cultures of CD34⁺ hematopoietic progenitor cells, the HDAC inhibitor valproic acid (VPA) increased CD34⁺ cell numbers by 4.2-fold and multipotent CD34⁺ and thymus cell antigen 10 (Thy1; CD90)⁺ cell numbers by 144-fold compared with medium alone. In immunodeficient mice, transplanted human CD34⁺ cells treated with VPA and primed with cytokines showed greater engraftment than cells that were only primed with cytokines. Next steps could include assessing the efficacy of the method for replenishing all hematopoietic cell lineages in mice.</p> <p><i>SciBX</i> 7(22); doi:10.1038/scibx.2014.660 Published online June 5, 2014</p>	Patent and licensing status unavailable	<p>Chaurasia, P. <i>et al.</i> <i>J. Clin. Invest.</i>; published online April 24, 2014; doi:10.1172/JCI70313 Contact: Ronald Hoffman, The Tisch Cancer Institute, Icahn School of Medicine at Mount Sinai, New York, N.Y. e-mail: ronald.hoffman@mssm.edu Contact: Pratima Chaurasia, same affiliation as above e-mail: pratima.chaurasia@mssm.edu</p>