

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
Human bone marrow-specific extracellular matrix (ECM) substrates	<p>Human bone marrow-specific ECM substrates could be used to culture stem cells for therapeutic applications. Bone marrow-derived mesenchymal stem cells (MSCs) were cultured under conditions that induced the production of osteogenic bone marrow ECM or collagen-rich ECM, and then the cells were removed using a decellularization protocol. <i>In vitro</i>, MSCs and hematopoietic stem and progenitor cells (HSPCs) showed greater proliferation when cultured on the MSC-derived ECM substrates than when cultured on conventional tissue culture plastic. HSPCs generated on the ECM substrates showed better engraftment in mice than those seeded on control scaffolds. Next steps include using immortalized human MSCs and other fibroblast-like cells to generate decellularized matrices and standardizing the matrix production procedure for clinical use.</p> <p>SciBX 6(29); doi:10.1038/scibx.2013.772 Published online Aug. 1, 2013</p>	<p>Patent application filed; licensing details available from the Leibniz Institute of Polymer Research Dresden</p>	<p>Prewitz, M.C. <i>et al. Nat. Methods</i>; published online June 23, 2013; doi:10.1038/nmeth.2523 Contact: Carsten Werner, Max Bergmann Center of Biomaterials Dresden, Dresden, Germany e-mail: carsten.werner@tu-dresden.de</p>