

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug delivery			
Fibrin hydrogel for controlled and sustained delivery of recombinant VEGF	<p><i>In vitro</i> and mouse studies suggest a fibrin hydrogel that provides controlled and sustained release of VEGF could help treat ischemia. The fibrin hydrogel contains a fusion protein made up of the N terminus of murine Vegf and an $\alpha 2$ plasmin inhibitor segment that binds fibrin plus a second fusion protein made up of the fibrinolysis inhibitor aprotinin and an $\alpha 2$ plasmin inhibitor segment. In immunodeficient mice, subcutaneous injection of the fusion protein-containing hydrogel resulted in stable release of Vegf over four weeks as it degraded. In two rodent models of hind limb and wound-healing ischemia, intramuscular injection of the fusion protein-containing hydrogel induced stable angiogenesis and increased blood flow to ischemic tissues compared with injection of an empty hydrogel. Next steps include repeating the ischemia experiments in large-animal models. Kuros Biosurgery AG has multiple fibrin hydrogel-based products in Phase II or earlier testing to promote bone repair or wound healing.</p> <p><i>SciBX</i> 7(22); doi:10.1038/scibx.2014.657 Published online June 5, 2014</p>	Technology for binding growth factors to fibrin patented; licensed to Kuros Biosurgery	Sacchi, V. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; published online April 28, 2014; doi:10.1073/pnas.1404605111 Contact: Andrea Banfi, University of Basel, Basel, Switzerland e-mail: andrea.banfi@usb.ch