

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Various				
Cancer; retinopathy of prematurity	VEGF receptor 1 (FLT1; VEGFR1); neuropilin 1 (NRP1)	<i>In vitro</i> and mouse studies identified an FLT1 and NRP1-binding peptidomimetic that could help treat cancer. A screen of a combinatorial library identified a three-amino-acid peptide as a ligand for NRP1 and FLT1. A synthetic peptidomimetic of that ligand showed activity and biological properties similar to those of the parent ligand. In mouse models of angiogenesis and breast cancer, the peptidomimetic decreased neovascularization and tumor growth, respectively, compared with a control peptidomimetic. In a mouse model of retinopathy of prematurity, the peptidomimetic decreased retinal angiogenesis to levels comparable to those seen using Avastin. Next steps include further preclinical work. Avastin from Roche's Genentech Inc. unit is a humanized mAb against VEGF that is marketed to treat certain cancers and used off-label to treat wet age-related macular degeneration (AMD).	Patent application filed; available for licensing	Giordana, R. <i>et al. Proc. Natl. Acad. Sci. USA</i> ; published online Feb. 22, 2010; doi:10.1073/pnas.0915141107 Contact: Wadih Arap, The University of Texas M.D. Anderson Cancer Center, Houston, Texas e-mail: warap@mdanderson.org Contact: Renata Pasqualini, same affiliation as above e-mail: rpasqual@mdanderson.org Contact: Richard L. Sidman, Beth Israel Deaconess Medical Center, Boston, Mass. e-mail: richard_sidman@hms.harvard.edu
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