

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Brain cancer	Hypoxia-inducible factor 1 (HIF1); chemokine CXC motif ligand 12 (CXCL12; SDF-1); CXC chemokine receptor 4 (CXCR4; NPY3R)	<p>Studies in humans and in mice suggest that inhibiting HIF1, CXCL12 or CXCR4 could help prevent the recurrence of glioblastoma multiforme (GBM) tumors after radiation therapy. In a GBM mouse model, radiation in combination with an HIF1, CXCL12 or CXCR4 inhibitor decreased tumor recurrence compared with radiation alone. Ongoing studies include testing the inhibitors in a rat model of spontaneous GBM tumors.</p> <p>Genzyme Corp.'s CXCR4 antagonist, Mozobil plerixafor (AMD3100), is approved to increase mobilization of hematopoietic stem cells to the bloodstream for collection and subsequent autologous transplantation to treat multiple myeloma (MM) and non-Hodgkin's lymphoma (NHL). Mozobil also is in Phase I/II testing to treat acute myelogenous leukemia (AML), chronic lymphocytic leukemia (CLL), MM and lymphoma. TaiGen Biotechnology Co. Ltd.'s CXCR4 inhibitor, TG-0054, is in Phase II testing to treat MM, NHL and Hodgkin's lymphoma.</p> <p>Noxxon Pharma AG's CXCL12 inhibitor, NOX-A12, is in Phase I testing to treat hematological malignancies.</p> <p>SciBX 3(9); doi:10.1038/scibx.2010.271 Published online March 4, 2010</p>	Patented by Stanford University; available for licensing	<p>Kioi, M. <i>et al. J. Clin. Invest.</i>; published online Feb. 22, 2010; doi:10.1172/JCI40283</p> <p>Contact: J. Martin Brown, Stanford University School of Medicine, Stanford, Calif. e-mail: mbrown@stanford.edu</p>