This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Various				
Macular degeneration; diabetic retinopathy; cancer; arthritis; psoriasis	Vascular endothelial growth factor receptor 2 (KDR; FLK-1; VEGFR2); glucocorticoid receptor DNA binding factor 1 (GRLF1; p190RhoGAP); general transcription factor II, I (GTF2I; TFII-I); GATA binding protein 2 (GATA2)	Studies in cell culture and in mice suggest that modulating levels of TFII-I and GATA2 could help treat angiogenesis-related diseases. In human microvascular endothelial cells, GRLF1 controlled angiogenesis by altering the balance of TFII-I and GATA2, two transcription factors that regulate expression of VEGFR2. In mice, small interfering RNA knockdown of TfII-I increased *Vegfr2* expression and vascular density compared with what was seen using control siRNA. Also in mice, siRNA knockdown of Gata2 suppressed *Vegfr2* expression, disrupted capillary network formation and decreased vascular density compared with what was seen in controls. Next steps include developing agents to modulate the pathway for therapeutic purposes. *SciBX* 2(9); doi:10.1038/scibx.2009.379 Published online March 5, 2009	Patent application filed for controlling angiogenesis by modulating TFII-I and GATA2 or p190RhoGAP; unlicensed	Mammoto, A. *et al. Nature*; published online Feb. 25, 2009; doi:10.1038/nature07765 **Contact:** Donald E. Ingber, Harvard Medical School, Boston, Mass. e-mail: donald.ingber@childrens.harvard.edu