## This week in therapeutics

| Indication | Target/marker/ pathway | Summary | Licensing status | Publication and contact information |
|---|---|---|---|---|
| **Ophthalmic disease** | | | | |
| Various indications | Frizzled homolog 4 (FZD4); tetraspanin 12 (TSPAN12) | Studies in mice and in human cell culture suggest that targeting TSPAN12 could help treat retinal vascular diseases. *Tspan12* knockout mice had delayed development of retinal vasculature and retinal aneurisms as adults compared with wild-type controls. In cell culture, small interfering RNA knockdown of *TSPAN12* reduced signaling through FZD4, a surface receptor involved in retinal vascular proliferation. Also in cell culture, *TSPAN12* overexpression corrected vascular disease–associated mutations in *FZD4*. Next steps include developing TSPAN12 agonists to correct hereditary defects linked to human eye diseases and TSPAN12 antagonists for retinal diseases caused by excessive vascularization.<br><br>***SciBX*** **2(43); doi:10.1038/scibx.2009.1613**<br>**Published online Nov. 5, 2009** | Patent and licensing status undisclosed | Junge, J. *et al. Cell*; published online Oct. 16, 2009; doi:10.1016/j.cell.2009.07.048<br>**Contact:** Weilan Ye, Genentech Inc., South San Francisco, Calif.<br>e-mail: loni@gene.com |