## This week in therapeutics

| Indication | Target/marker/ pathway | Summary | Licensing status | Publication and contact information |
|---|---|---|---|---|
| **Cancer** | | | | |
| Breast cancer | HER2 (EGFR2; ERBB2; neu); heat shock transcription factor 1 (HSF1); lactate dehydrogenase A (LDHA) | Studies in mice and in cell culture suggest that inhibiting glycolysis could decrease breast cancer resistance to Herceptin trastuzumab. In two human breast cancer cell lines, small interfering RNA targeting the glycolytic proteins HSF1 and LDHA increased sensitivity to Herceptin compared with scrambled siRNA. In a mouse model of Herceptin-resistant human breast cancer, Herceptin plus a glycolysis inhibitor resulted in lower tumor growth than either compound alone. Next steps include using samples from breast cancer patients to determine whether HSF1 and LDHA could be used as markers for disease prognosis and responsiveness to Herceptin.<br>Roche's Genentech Inc. unit markets Herceptin, an anti-EGFR mAb, to treat breast and gastric cancers.<br><br>*SciBX* 4(18); doi:10.1038/scibx.2011.505<br>Published online May 5, 2011 | Work unpatented; licensing status not applicable | Zhao, Y. *et al. Cancer Res.*; published online April 15, 2011; doi:10.1158/0008-5472.CAN-11-0127<br>**Contact:** Ming Tan, University of South Alabama, Mobile, Ala.<br>e-mail: mtan@usouthal.edu |