This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Integrin $\alpha_5\beta_3$ (CD49e/CD61)	*In vitro* and mouse studies suggest inhibiting CD49e/CD61 could help treat tumors resistant to receptor tyrosine kinase (RTK) inhibitors. Cultured lung, breast and pancreatic cancer cell lines expressing CD49e/CD61 had a survival advantage over nonexpressing cells and showed greater resistance to RTK inhibitors such as Tarceva erlotinib. In tumor biopsies from patients whose disease had progressed on Tarceva, CD49e/CD61 expression was higher than that in samples taken prior to treatment or from untreated patients. In mice with subcutaneous lung and prostate tumors, Tarceva plus the proteasome inhibitor Velcade bortezomib, which blocks a target downstream of CD49e/CD61, decreased tumor volume compared with Tarceva alone. Next steps include testing the combination in patients who have progressed on Tarceva alone. Astellas Pharma Inc., Chugai Pharmaceutical Co. Ltd. and the Genentech Inc. unit of Roche market Tarceva to treat pancreatic cancer and non–small cell lung cancer (NSCLC). Takeda Pharmaceutical Co. Ltd. and Johnson & Johnson market Velcade to treat multiple myeloma (MM) and mantle cell lymphoma (MCL). *SciBX* 7(20); doi:10.1038/scibx.2014.577 Published online May 22, 2014	Patent applications filed covering use of NF-κB pathway inhibitors to treat tumors resistant to RTK inhibitors; unlicensed	Seguin, L. *et al. Nat. Cell Biol.*; published online April 20, 2014; doi:10.1038/ncb2953 **Contact:** David A. Cheresh, University of California, San Diego, La Jolla, Calif. e-mail: dcheresh@ucsd.edu