This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Histone deacetylase (HDAC)	Studies in cell culture, tissue culture and mice suggest that co-treatment of tumors with an oncolytic virus and HDAC inhibitors could improve the efficacy of cancer therapies. In both tumor tissue explants and murine xenograft tumor models, the combination of *vesicular stomatitis* virus (VSV) with small molecule HDAC inhibitors such as SNDX-275 or vorinostat induced greater tumor cell apoptosis than that seen using either treatment alone. Experiments with *vaccinia* and *Semliki Forest* viruses yielded similar results. Ongoing studies aim to elucidate the mechanism underlying the synergy between oncolytic viruses and HDAC inhibition by identifying tumor cell genes affected by HDAC inhibitors. Zolinza vorinostat, an HDAC inhibitor from Merck & Co. Inc., is approved to treat cutaneous T cell lymphoma (CTCL) and is in Phase I and Phase II trials for other cancers. Syndax Pharmaceuticals Inc.'s SNDX-275 (formerly MS-275) small molecule HDAC inhibitor is in Phase I and Phase II trials to treat various cancers. At least 10 other companies are developing HDAC inhibitors for cancer. At least 10 companies are developing oncolytic viruses to treat cancer.	Patent application filed; will be licensed to Jennerex Biotherapeutics Inc.	Nguyên, T. *et al. Proc. Natl. Acad. Sci. USA*; published online Sept. 8, 2008; doi:10.1073/pnas.0803988105 **Contact:** John Hiscott, McGill University, Montreal, Quebec, Canada e-mail: john.hiscott@mcgill.ca **Contact:** John C. Bell, University of Ottawa, Ottawa, Ontario, Canada e-mail: jbell@ohri.ca