This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Hematological malignancies	Phorbol-12-myristate-13-acetate-induced protein 1 (PMAIP1; NOXA); ER-associated protein degradation (ERAD)	<p>Studies in cell culture suggest that Eeyarestatin I (EerI) may have anticancer properties similar to the proteasome inhibitor Velcade bortezomib. In cellular assays, EerI decreased the viability of hematological cancer cell lines and primary leukemia cells compared with healthy peripheral blood mononuclear cells (PBMCs). Gene expression profiling showed that many of the genes modulated by EerI were the same as those modulated by bortezomib, including those in the ERAD pathway. Like bortezomib, EerI induced cell death through the activation of NOXA. Next steps include evaluating EerI in animal models of cancer and optimizing its structure to improve pharmacological properties.</p> <p>Velcade, a small molecule dipeptide boronic acid proteasome inhibitor from Takeda Pharmaceutical Co. Ltd.'s Millennium Pharmaceuticals Inc. subsidiary and Johnson & Johnson, is marketed for multiple myeloma (MM) and mantle cell lymphoma.</p> <p>SciBX 2(4); doi:10.1038/scibx.2009.138 Published online Jan. 29, 2009</p>	<p>Patent application filed covering EerI and potential methods to improve its function; available for licensing from the NIH Office of Technology Transfer Contact: Surekha Vathyam, National Institutes of Health, Bethesda, Md. phone: 301-435-4076 e-mail: vathyams@mail.nih.gov</p>	<p>Wang, Q. <i>et al. Proc Natl. Acad. Sci. USA</i>; published online Jan. 19, 2009; doi:10.1073/pnas.0807611106 Contact: Yihong Ye, National Institutes of Health, Bethesda, Md. e-mail: yihongy@mail.nih.gov Contact: Adrian Wiestner, same affiliation as above e-mail: wiestnera@mail.nih.gov</p>