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THE DISTILLERY

This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Proteasome	*In vitro* studies suggest that a class of boronic acids could inhibit the proteasome to treat a range of cancers. *In vitro*, analogs of a dipeptide boronic acid scaffold inhibited the 20S subunit of the human proteasome at low nanomolar concentrations. Two lead compounds had low nanomolar activities comparable to or better than that of bortezomib in 9 of 10 human cancer cell lines tested, including leukemia, myeloma and lung, colon, ovary, cervical, oral and liver cancers. Ongoing studies are evaluating the two lead compounds in animal models of cancer. Velcade bortezomib, a dipeptide boronic acid proteasome inhibitor from Takeda Pharmaceutical Co. Ltd.'s Millennium Pharmaceuticals Inc. unit and Johnson & Johnson, is approved to treat mantle cell lymphoma and multiple myeloma (MM). At least five other companies have proteasome inhibitors in clinical development to treat cancer. ***SciBX*** **2(26); doi:10.1038/scibx.2009.1039** **Published online July 9, 2009**	Patented by Simcere Pharmaceutical Group; unavailable for licensing	Zhu, Y. *et al. J. Med. Chem.*; published online June 18, 2009; doi:10.1021/jm9005093 **Contact:** Yongqiang Zhu, Jiangsu Simcere Pharmaceutical Research Institute and Jiangsu Key Laboratory of Molecular Targeted Antitumor Drug Research, Nanjing, China e-mail: zhyqscu@hotmail.com