This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Multiple myeloma (MM)	Cyclin dependent kinase 5 (CDK5)	<i>In vitro</i> studies suggest that CDK5 inhibitors could help treat MM. In human MM cell lines, CDK5 knockdown increased the cells' sensitivity to the proteasome inhibitors Velcade bortezomib and carfilzomib. In MM cell lines and primary human MM cells, Velcade plus a CDK inhibitor led to greater apoptosis than either agent alone. Ongoing work includes testing a CDK inhibitor in MM patients and planning a clinical trial of the CDK inhibitor in combination with Velcade to treat MM. Dinaciclib (SCH 727965), an inhibitor of CDKs including CDK5 from Merck & Co. Inc. and Ligand Pharmaceuticals Inc., is in Phase I/II testing for MM and other cancers. Takeda Pharmaceutical Co. Ltd. and Johnson & Johnson market Velcade to treat MM and mantle cell lymphoma (MCL). Carfilzomib (PR-171), a proteasome inhibitor from Onyx Pharmaceuticals Inc. and Ono Pharmaceutical Co. Ltd., is in Phase III testing to treat MM and Phase II trials to treat solid tumors. SciBX 4(8); doi:10.1038/scibx.2011.223 Published online Feb. 24, 2011	Unpatented; available for licensing or partnering	Zhu, Y.X. <i>et al. Blood</i>; published online Feb. 2, 2011; doi:10.1182/blood-2010-08-304022 Contact: A. Keith Stewart, Mayo Clinic, Scottsdale, Ariz. e-mail: stewart.keith@mayo.edu