This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Cancer	Casein kinase 1α (CSNK1A; CKI-α); sonic hedgehog homolog (SHH)	Mouse and cell culture studies suggest agonizing CKI-α could be useful for treating hedgehog pathway–driven cancers that have developed resistance to smoothened (SMO) inhibitors. In cell lines that expressed mutant SMO, the generic anthelmintic compound pyrvinium, which is thought to agonize CKI-α, inhibited hedgehog signaling, whereas the SMO inhibitor Erivedge vismodegib did not. In mouse embryonic fibroblasts, both CKI-α overexpression and pyrvinium decreased the stability of the glioma-associated oncogene homolog zinc finger protein isoforms compared with normal CKI-α expression or vehicle. In a mouse model of hedgehog-driven medulloblastoma, subcutaneous injection of pyrvinium decreased hedgehog pathway signaling and tumor growth compared with vehicle injection. Next steps could include evaluating pyrvinium in combination with various anticancer therapies in SMO inhibitor–resistant cancers. The generic pyrvinium pamoate is approved to treat parasitic worm infections. Roche's Genentech Inc. unit markets Erivedge to treat basal cell carcinoma (BCC).	Patent and licensing status unavailable	Li, B. *et al. Cancer Res.*; published online July 3, 2014; doi:10.1158/0008-5472.CAN-14-0317 **Contact:** David J. Robbins, University of Miami, Miami, Fla. e-mail: drobbins@med.miami.edu

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