This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Cancer				
Prostate cancer	Cyclin dependent kinase 4 (CDK4); CDK6	<p><i>In vitro</i> and mouse studies suggest castration-resistant prostate cancers expressing the F876L androgen receptor (AR) mutation could be treated with CDK4 inhibitors. The F876L AR mutation renders cancers resistant to the AR antagonist Xtandi enzalutamide. In an <i>in vitro</i> model of enzalutamide-resistant prostate cancer, the F876L AR mutation switched enzalutamide from an AR antagonist to agonist. In mice with tumors expressing the F876L AR mutant, inhibitors of CDK4 and CDK6 decreased tumor growth compared with enzalutamide. Ongoing studies include identifying patients with prostate cancer who could benefit from CDK4 and CDK6 inhibitors.</p> <p>Medivation Inc. and Astellas Pharma Inc. market Xtandi to treat prostate cancer. Onyx Pharmaceuticals Inc. and Pfizer Inc. have the CDK4 and CDK6 inhibitor palbociclib in Phase III testing to treat breast cancer.</p> <p>Eli Lilly and Co.'s LY2835219, a selective dual inhibitor of CDK4 and CDK6, is in Phase II testing to treat mantle cell lymphoma (MCL). Novartis AG and Astex Pharmaceuticals Inc. have LEE011, a CDK4 and CDK6 inhibitor, in Phase I testing to treat solid tumors.</p> <p>SciBX 6(32); doi:10.1038/scibx.2013.861 Published online Aug. 22, 2013</p>	Patent application filed; available for licensing	<p>Korpai, M. <i>et al. Cancer Discov</i>; published online July 10, 2013; doi:10.1158/2159-8290.CD-13-0142</p> <p>Contact: Manav Korpai, Novartis Institutes for BioMedical Research, Cambridge, Mass. e-mail: manav.korpai@novartis.com</p>