

This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Endocrine/metabolic disease				
Infertility	Checkpoint kinase 2 (Chk2; CHEK2)	<p>Mouse studies suggest inhibiting CHK2 could prevent premature ovarian failure after radiotherapy or chemotherapy. In mice with genetically induced meiotic failure, <i>Chk2</i> deficiency increased numbers of ovarian follicles compared with normal <i>Chk2</i> expression. Oocytes in <i>Chk2</i>-deficient mice were viable despite abundant double-strand breaks, resulting in multiple litters of pups with no visible abnormalities. Wild-type mice subjected to irradiation showed complete elimination of the follicle pool, whereas <i>Chk2</i>^{-/-} mice retained follicles, remained fertile and did not undergo strand break-mediated oocyte elimination. Next steps include sequencing the genomes of the pups for mutations and identifying the mechanism responsible for repairing oocyte double strand-break damage.</p> <p>SciBX 7(7); doi:10.1038/scibx.2014.199 Published online Feb. 20, 2014</p>	Unpatented; licensing status not applicable	<p>Bolcun-Filas, E. <i>et al. Science</i>; published online Jan. 31, 2014; doi:10.1126/science.1247671</p> <p>Contact: John C. Schimenti, Cornell University, Ithaca, N.Y. e-mail: jcs92@cornell.edu</p>