This week in therapeutics

Indication	Target/marker/pathway	Summary	Licensing status	Publication and contact information
Endocrine/metabolic disease				
Infertility	IL-1; IL-1 α ; IL-1 β	<p>Mouse studies suggest inhibiting IL-1 signaling could improve the success of fertility treatments. In aged female mice, knockout of <i>IL-1α</i> and <i>IL-1β</i> led to increased litter sizes compared with no alteration. The aged <i>IL-1α</i> knockout mice also showed increased pregnancy rates and improved responsiveness to gonadotropins across their entire reproductive lifespan compared with wild-type mice. Next steps could include long-term safety studies in IL-1 inhibitor-treated mice and their offspring.</p> <p>Swedish Orphan Biovitrum AB markets Kineret anakinra, an IL-1 receptor antagonist, to treat rheumatoid arthritis (RA) and cryopyrin-associated periodic syndrome (CAPS).</p> <p>Bristol-Myers Squibb Co. and Novartis AG market Ilaris canakinumab, a human anti-IL-1β mAb, to treat CAPS. Bristol-Myers also markets the mAb to treat hyperuricemia and gout.</p> <p>At least 15 other companies have compounds that inhibit IL-1 signaling in Phase III or earlier testing to treat various diseases.</p> <p>SciBX 7(34); doi:10.1038/scibx.2014.1015 Published online Sept. 4, 2014</p>	Patent and licensing status unavailable	<p>Uri-Belapolsky, S. <i>et al. Proc. Natl. Acad. Sci. USA</i>; published online Aug. 11, 2014; doi:10.1073/pnas.1323955111</p> <p>Contact: Yehuda Kamari, Sheba Medical Center, Tel-Hashomer, Israel e-mail: yehuda.kamari@sheba.health.gov.il</p>