This week in therapeutics

Indication	Target/marker/ pathway	Summary	Licensing status	Publication and contact information
Endocrine/metabolic disease				
Infertility	Neurokinin 3 receptor (TACR3; NK3R); gonadotropin-releasing hormone (GnRH)	<i>In vitro</i> and goat studies identified peptidomimetic NK3R agonists that could help treat infertility. Senktide, a peptide agonist of NK3R, upregulates NK3R-GnRH signaling to treat infertility in animal models but is prone to enzymatic degradation. Chemical synthesis and <i>in vitro</i> testing of senktide peptidomimetics identified a lead compound that exhibited greater resistance to proteolytic degradation than senktide while retaining comparable agonistic activity toward NK3R. In ovariectomized goats, injection of the lead compound induced GnRH production with a longer duration of effect than senktide injection. Next steps could include studies to assess how the lead compound affects pregnancy rates in animals.	Patent and licensing status unavailable	Misu, R. <i>et al. J. Med. Chem.</i> ; published online Sept. 23, 2014; doi:10.1021/jm500771w Contact: Nobutaka Fujii, Kyoto University, Kyoto, Japan e-mail: nfujii@pharm.kyoto-u.ac.jp Contact: Satoshi Ohkura, same affiliation as above e-mail: soishi@pharm.kyoto-u.ac.jp
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