

Supplementary Information

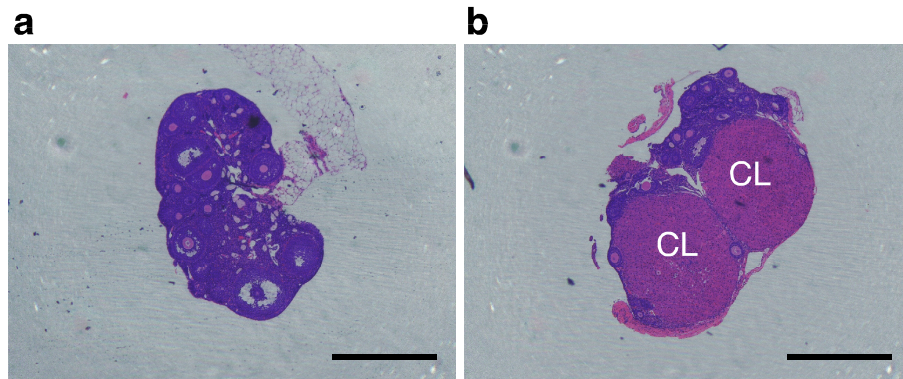
FGF21 contributes to neuroendocrine control of female reproduction

Bryn M. Owen¹, Angie L. Bookout^{1,2}, Xunshan Ding³, Vicky Y. Lin¹, Stan D. Atkin¹,
Laurent Gautron², Steven A. Kliewer^{1,3*}, and David J. Mangelsdorf^{1,4*}

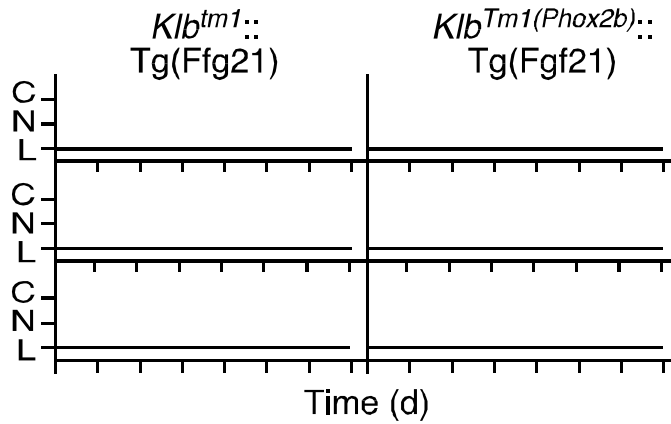
¹Department of Pharmacology; ²Division of Hypothalamic Research, Department of Internal Medicine; ³Department of Molecular Biology; ⁴Howard Hughes Medical Institute, University of Texas Southwestern Medical Center, Dallas TX 75390 USA

*To whom correspondence should be addressed. Email:

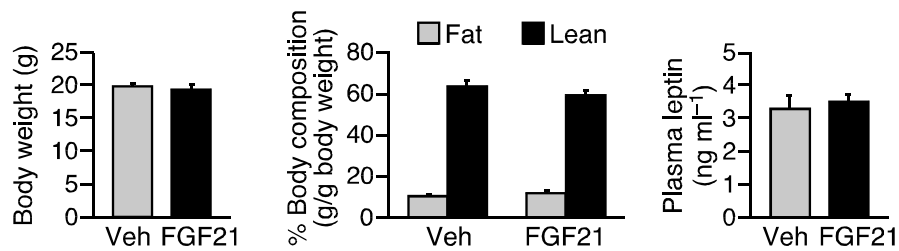
steven.kliewer@utsouthwestern.edu; davo.mango@utsouthwestern.edu



Supplementary Figure 1 Ovaries from Tg(Fgf21) mice are functional when transplanted in to wild-type recipients. (a) Histological image of an ovary from an Tg(Fgf21) mouse. (b) Image of a transplanted Tg(Fgf21) ovary taken from a pregnant wild-type recipient after mating with a wild-type male. Note the enlarged corpora lutea (CL) in the ovary from the transplanted wild-type female. Confirmation of successful transplant was by PCR identification of the Fgf21-transgene in one half of a bisected ovary and in at least one fetus. Bar = 500 μ m.



Supplementary Figure 2 Suppression of female infertility in Tg(Fgf21) mice is unaffected in the hindbrain knockout of *Klb*. Representative examples of estrous cycles in *Klb^{tm1}::Tg(Fgf21)* and *Klb^{tm1(Phox2b)}::Tg(Fgf21)* mice. Estrous cycling was determined by vaginal cytology (C: cornified cells [estrus], N: nucleated cells [proestrus], L: leukocytes [diestrus]).



Supplementary Figure 3 Body weight and composition, and plasma leptin levels in female mice treated with recombinant FGF21. Human FGF21 was administered by mini-pump infusion for 7 d ($n = 6$).