

Non-human Primate Models of Human Reproduction: Advantages and Disadvantages

Tony M. Plant

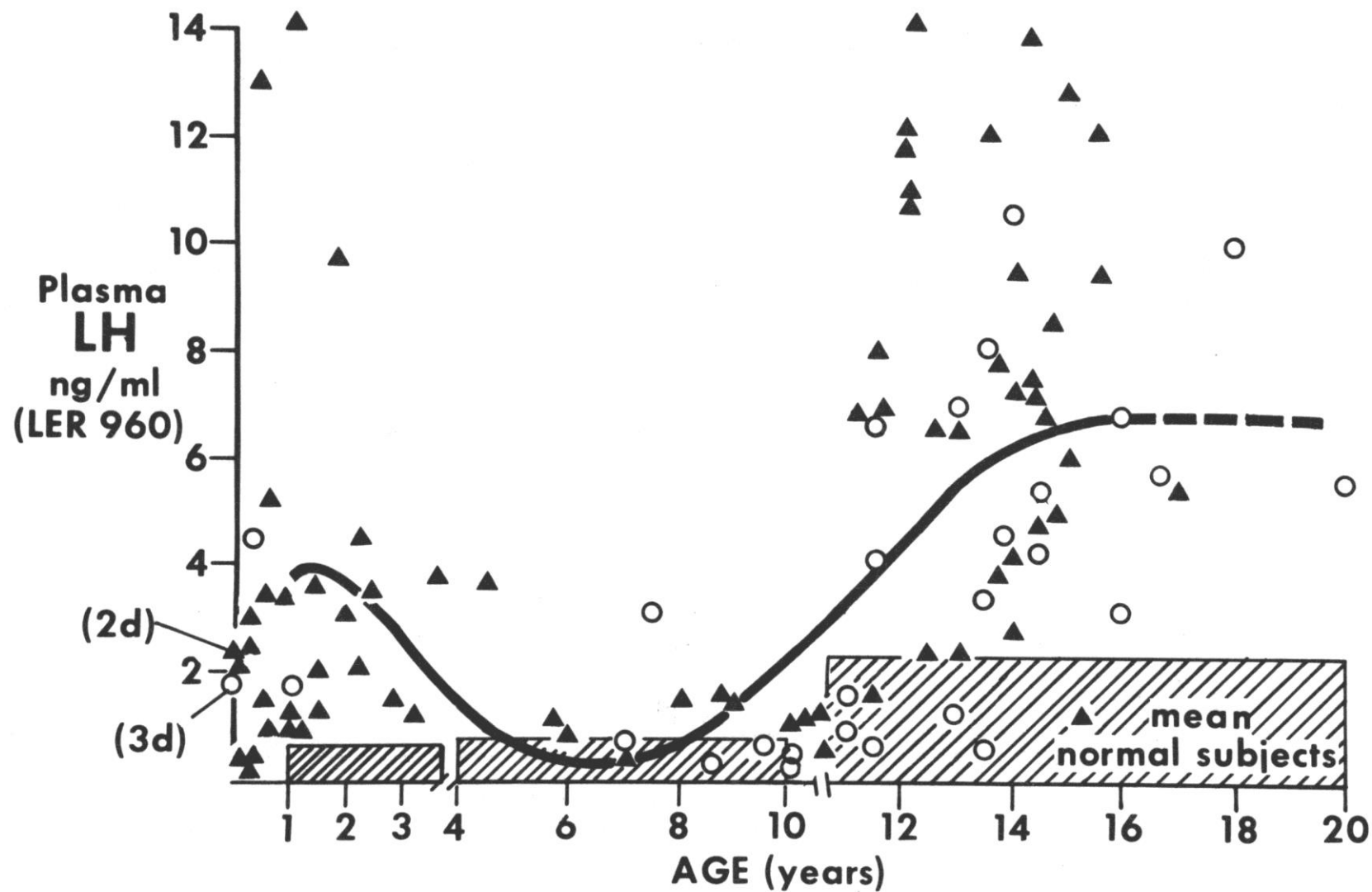
Departments of Cell Biology and Physiology
and Obstetrics, Gynecology and
Reproductive Sciences, and Center for
Research in Reproductive Physiology
University of Pittsburgh School
of Medicine and Magee Women's Research
Institute



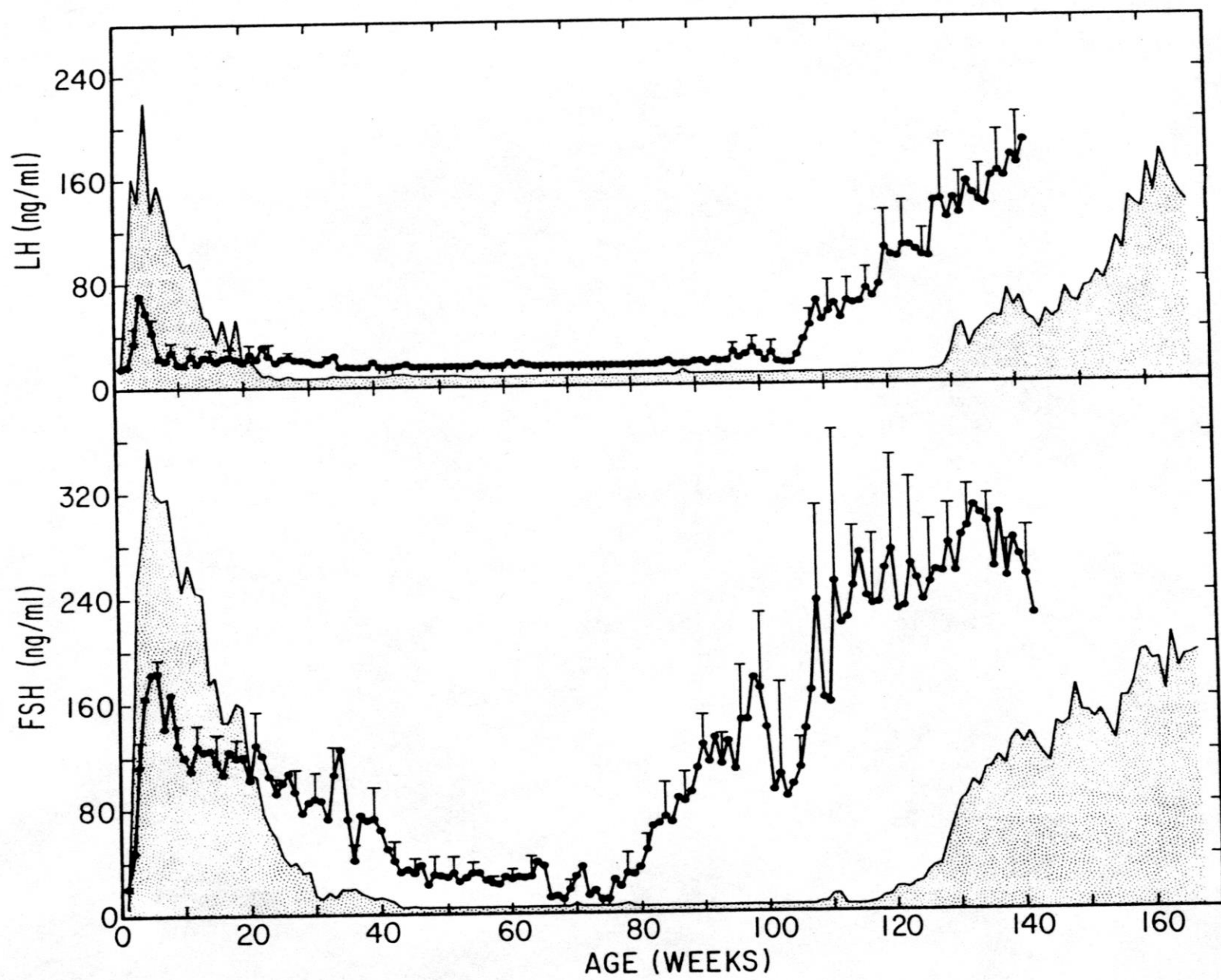
Edvard Munch
1895

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

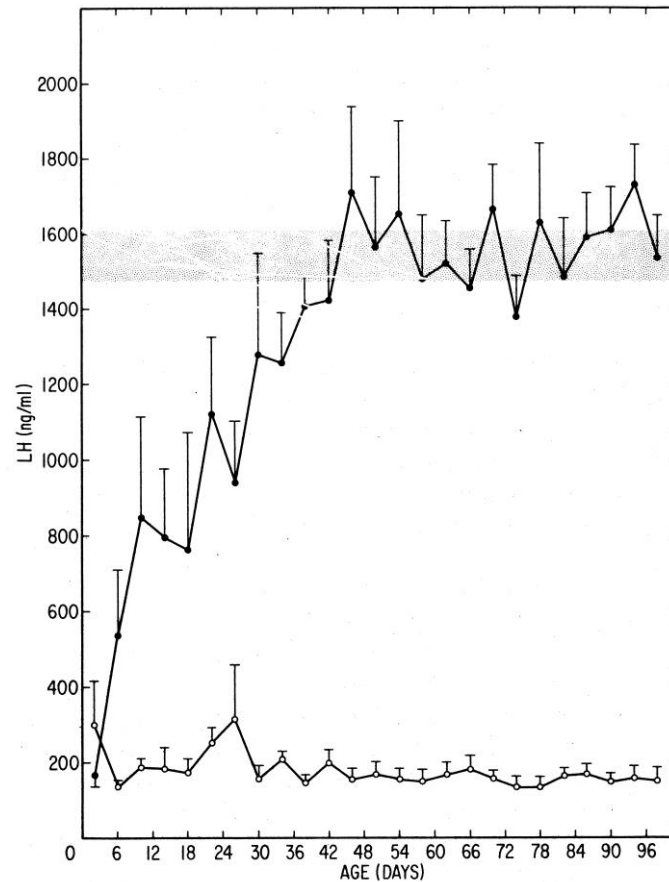
Puberty
National Gallery, Oslo



Conte et al. (1975) JCEM 40:670.

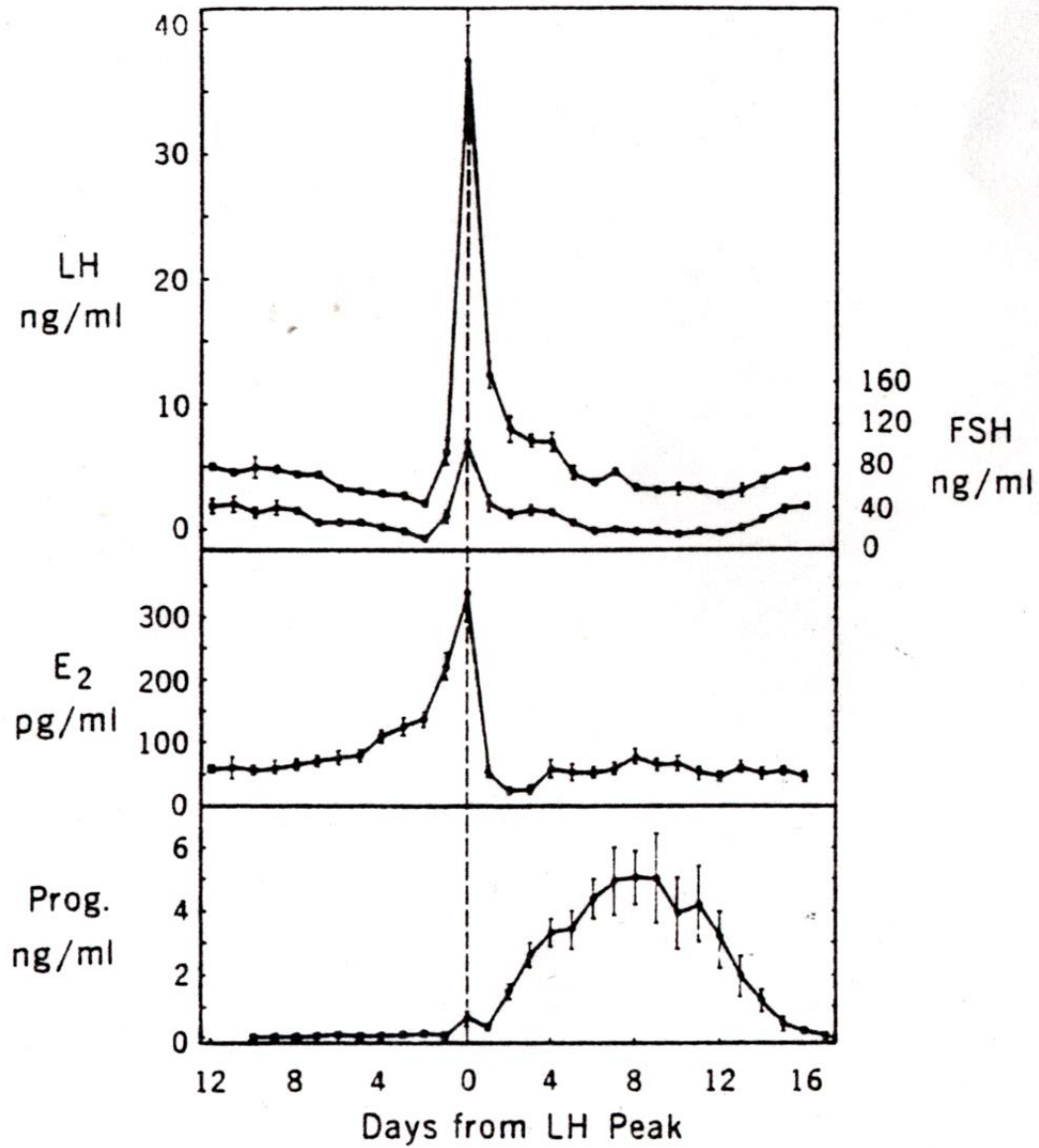


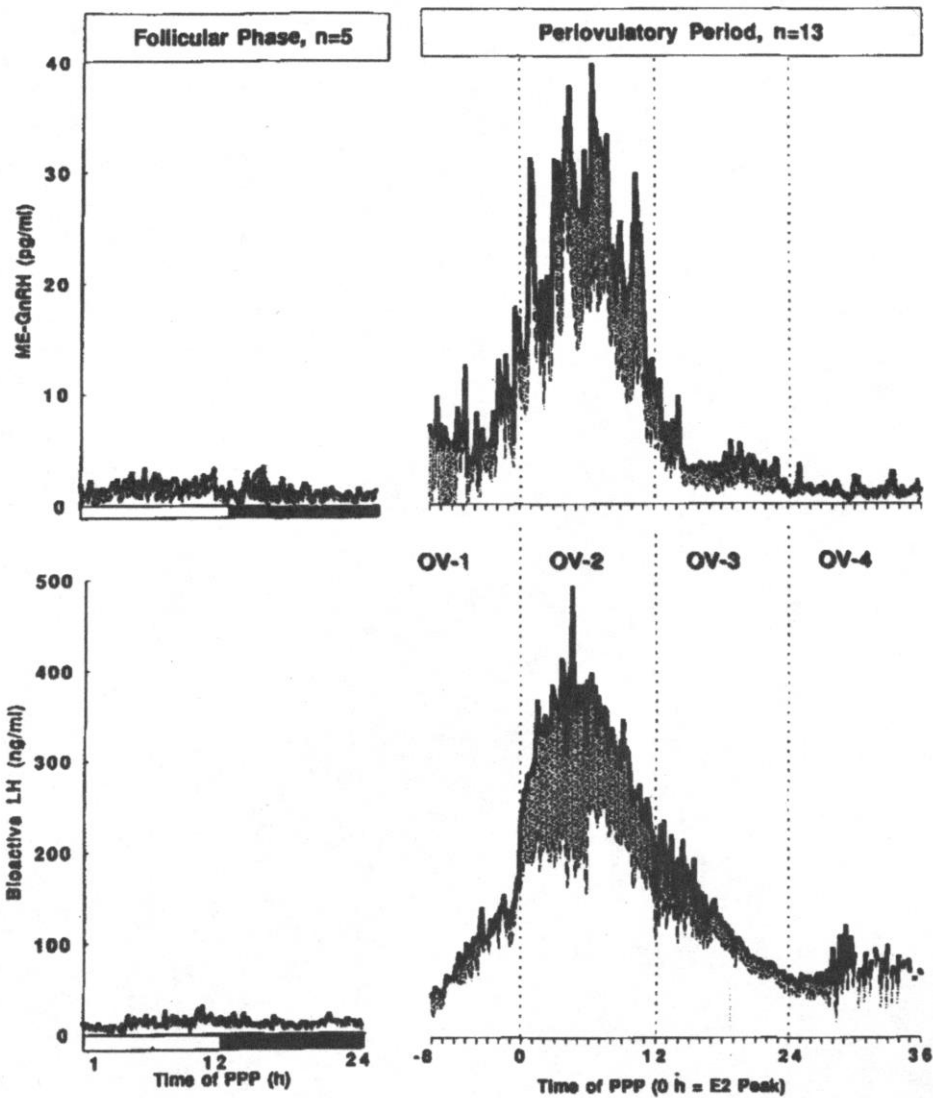
GUINEA PIG



Endocrinology 125:906 (1989).

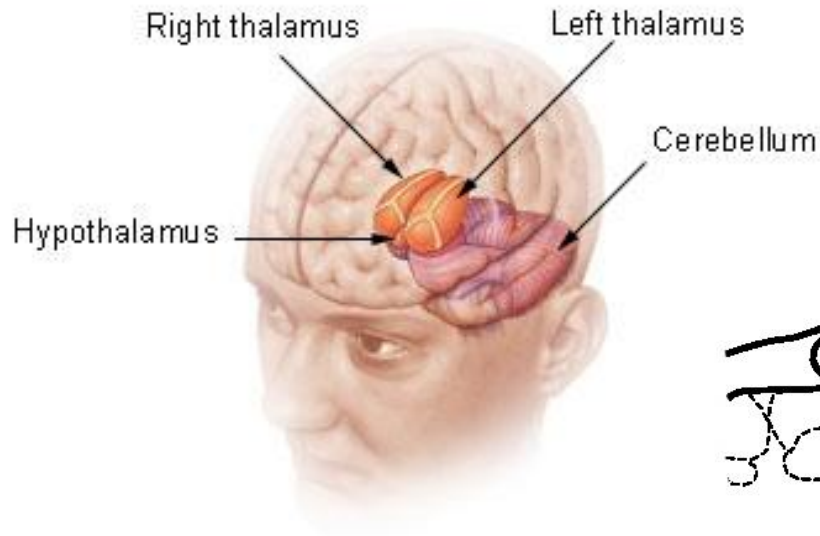
The Menstrual Cycle



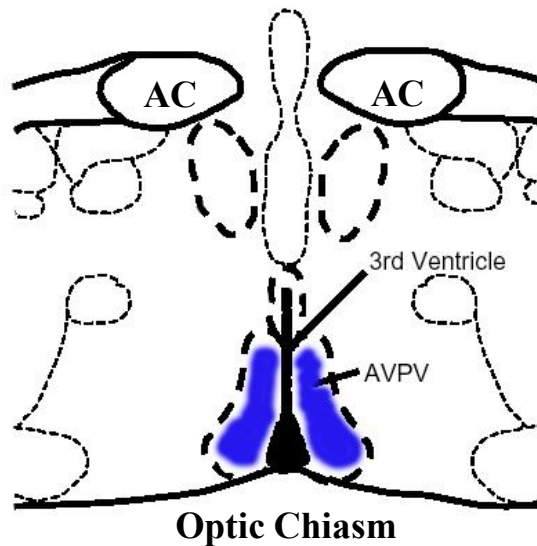


Hypothalamus

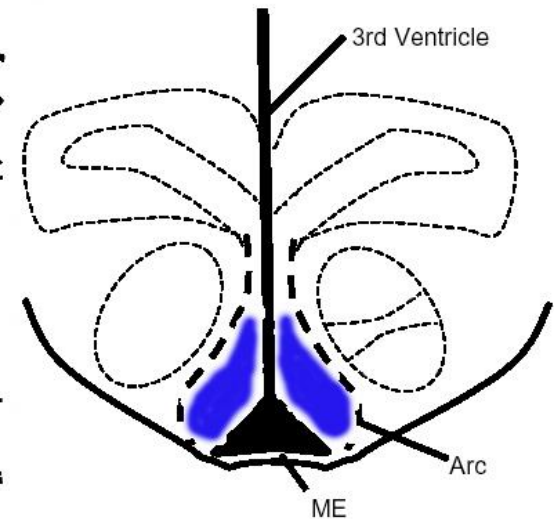
Diencephalon

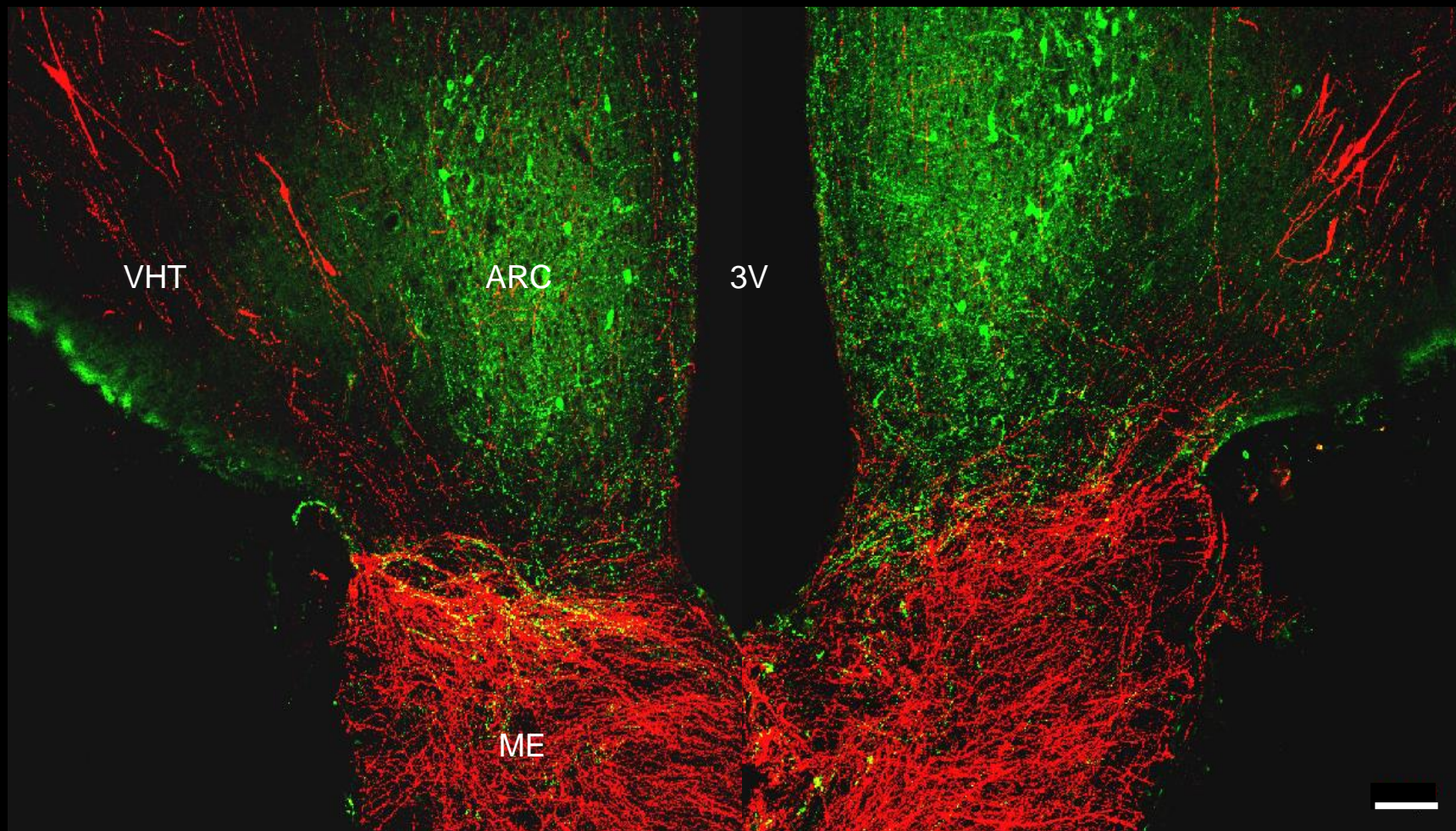


POA

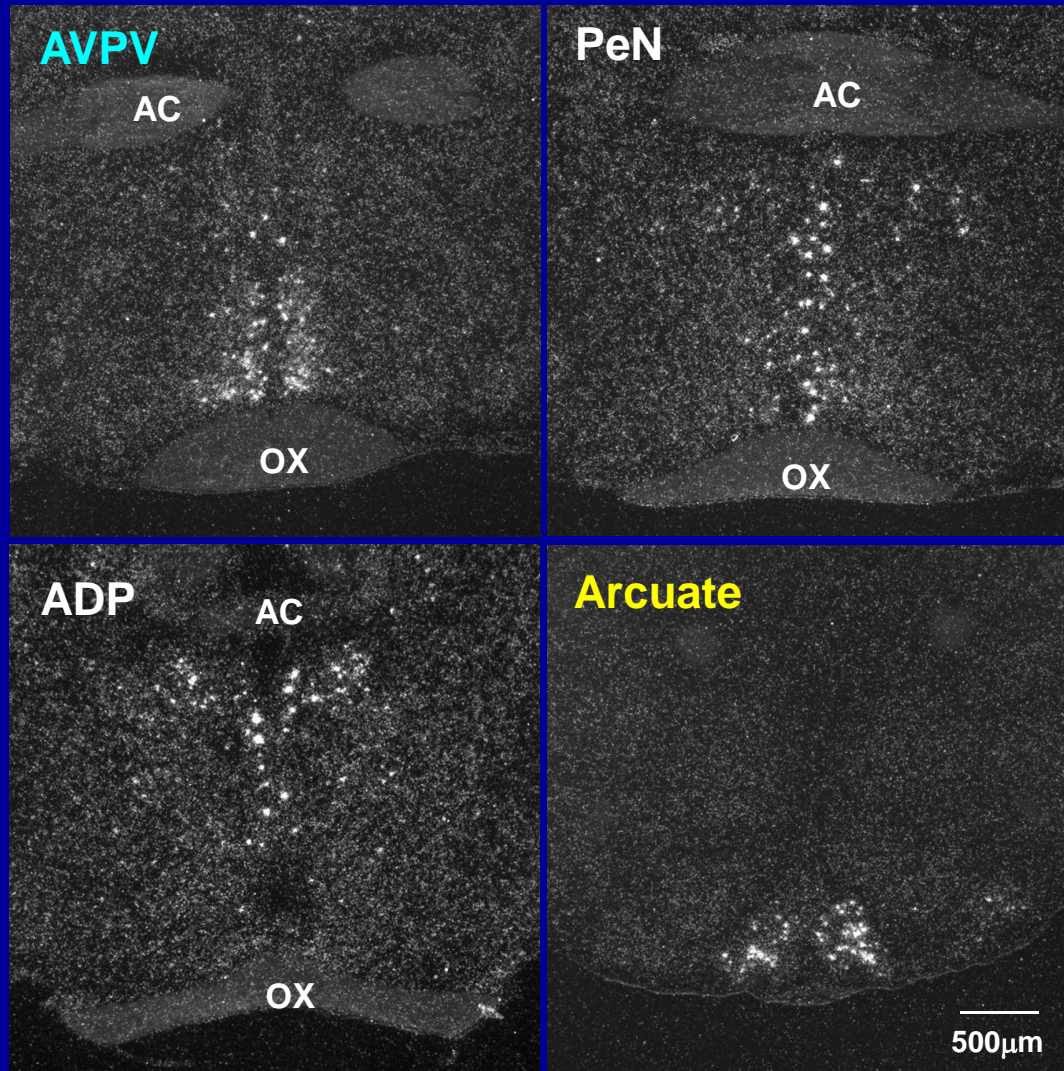


MBH

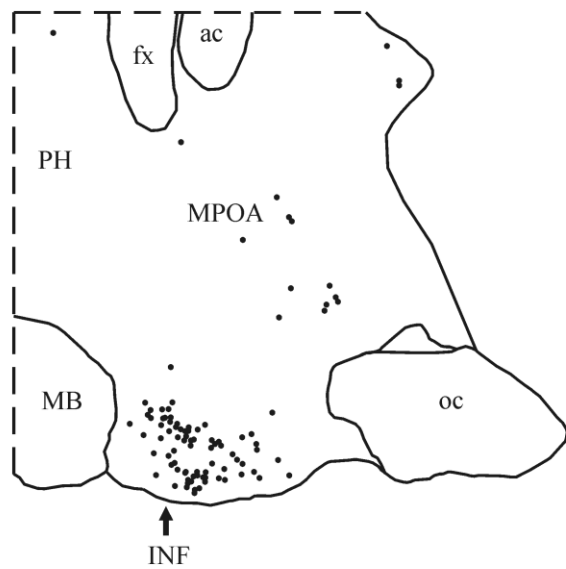




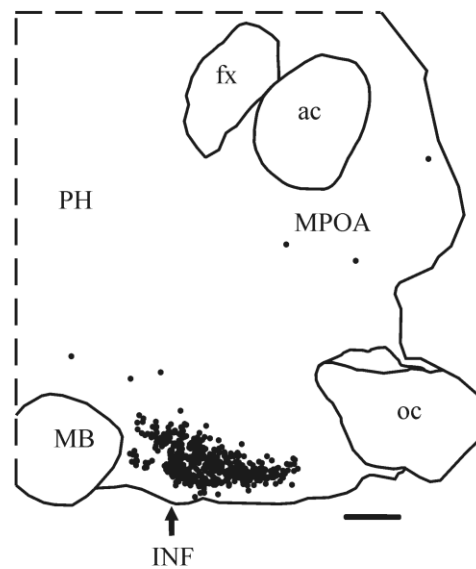
***Kiss1* mRNA Is Expressed in the Hypothalamus**



A Premenopausal



B Postmenopausal

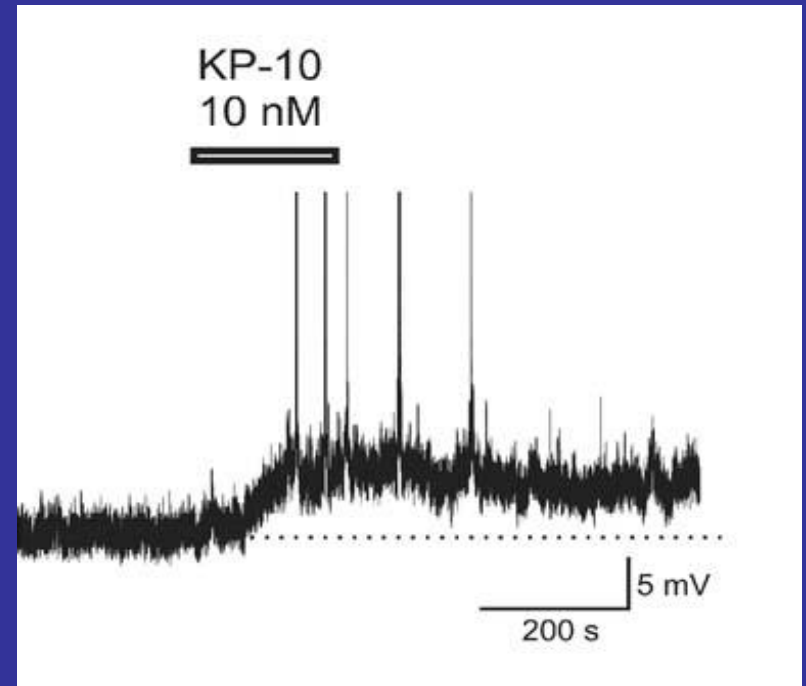
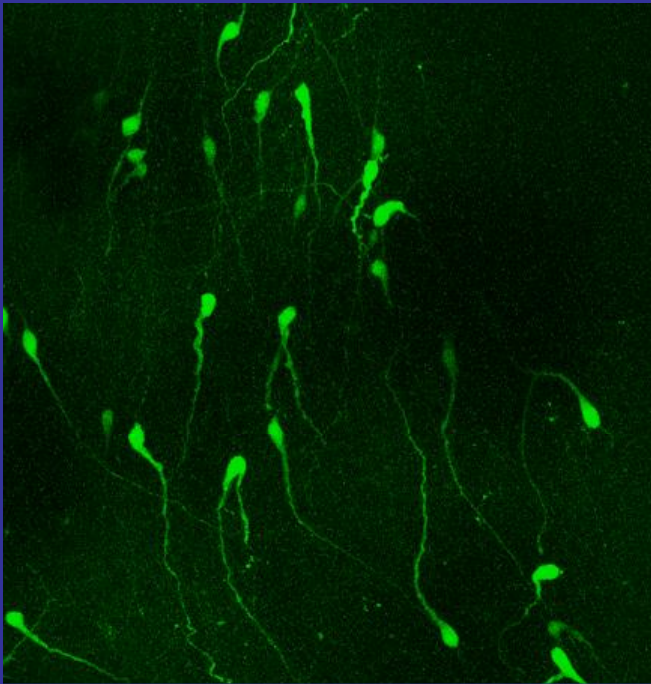


DISADVANTAGES OF NON-HUMAN PRIMATE MODELS

- 1) SUSCEPTIBLE TO HUMAN DISEASES
- 2) BIOHAZARDOUS
- 3) ECONOMICAL ISSUES
- 4) CONSERVATION/PROTECTED SPECIES
- 5) ETHICAL AND POLITICAL ISSUES
- 6) LIMITED ABILITY TO MANIPULATE GENE EXPRESSION
- 7) POOR MODEL FOR STUDENTS

THE RIGHT MODEL FOR THE RIGHT QUESTION

Kisspeptin Stimulates Electrical Activity in GnRH Neurons



Han et al. (2005) J. Neuroscience 25:11339

