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## Jessica A. Mong, PhD

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## Education and Training

1987-1991 B.S. Biology, Gettysburg College, Gettysburg, PA

1994-2000 Ph.D. Neuropharmacology, University of Maryland  
Baltimore, Baltimore, MD

2000-2003 NIH sponsored Postdoctoral Fellowship in Endocrinology,  
Rockefeller University, New York, NY

## Biosketch

Throughout my career, I have been interested in biological sex differences and steroid actions on brain function. In 2000, I received my Ph.D. in Neuropharmacology from the University of Maryland where my dissertation research investigated sex differences in the developing brain and formed the foundations for my continuing research interest. To further my training in how steroids may influence brain function and behavior, I completed a three-year postdoctoral fellowship in the Laboratory of Neurobiology and Behavior at the Rockefeller University. During this fellowship, I made the novel discovery that estrogens markedly influence the expression of genes implicated in sleep. In 2003, I was selected as a NIH BIRCWH (Building Interdisciplinary Research Careers in Women's Health) Scholar by the Women's Health Research Group at the University of Maryland and joined the faculty as a member of the Department of Pharmacology where I work has continued to investigate the cellular and molecular mechanisms underlying estrogenic modulation of sleep and arousal states.

A primary focus of my research is the study of mechanisms underlying the ovarian steroid control of sleep and arousal systems. My laboratory uses a multidisciplinary approach, which combines behavioral, cellular and molecular and functional neuroanatomical techniques. Using animal models my laboratory has demonstrated that sleep patterns in females are more sensitive to fluctuations in sex steroids compared to males. Our work further suggests that this sex difference in sensitivity is the result of sexually differentiated neural patterns in the sleep circuitry. Our work has gained national and international recognition. In 2014, she was appointed as a standing member and co-chair of the Society for Women's Health Research's Interdisciplinary Research Network for the Studies of Sex-Differences in Sleep Health.

In addition to her research program, I am actively involved in mentoring and education. I have mentored/co-mentored 7 Ph.D. students. I am currently the Director of Graduate Education for the Program in Neuroscience.

## Research/Clinical Keywords

Sleep, Sleep circuitry, Sex differences, Estradiol, Median Preoptic Nucleus, Women's Health, Insomnia, Arousal

## Highlighted Publications

1. K. Williams and J.A. Mong (2017) Methamphetamine and Ovarian Steroid Responsive Cells in the Posterodorsal Medial Amygdala are Required for Methamphetamine-enhanced Proceptive Behaviors. *Scientific Reports* 7:39817.
2. J.A. Mong and D.M. Cusmano (2016) Sex differences in sleep: impact of biological sex and sex steroids. *Phil. Trans. R. Soc. B* 371.
3. N.J. Gervais, S.S. Viechweg, J.A. Mong\*, and A. Lacreuse\*(2016) The middle-aged ovariectomized marmoset (*Callithrix jacchus*) as a model for menopausal symptoms: preliminary evidence. *Neuroscience* 337:1-8.
4. S.A. Rudsinkas and J.A. Mong (2016) Androgen-primed castrate males are sufficient for methamphetamine-facilitated increases in proceptive behavior in female rats. *Horm Behav* 78:52-59
5. D.M. Cusmano, and J.A. Mong. (2015) In Utero Exposure to Valproic Acid Changes Sleep in Juvenile Rats: A Model for Sleep Disturbances in Autism. *SLEEP*, 37(9):1489-99

6. D.M. Cusmano, M.M. Hadjimarkou and J.A. Mong (2014) Gonadal steroid modulation of sleep and wakefulness in male and female rats is sexually differentiated and neonatally organized by steroid exposure. *Endocrinology* 155:204-214.
7. M.D. Schwartz and J.A. Mong (2013) Estradiol modulates recovery of REM sleep in a time-of-day-dependent manner. *Am J Physiol Reg, Integ, Comp Physiol*, 305:271-80.
8. J. A. Mong\*, F. C. Baker, M. M. Mahoney, K. N. Paul, M. D. Schwartz, K. Semba, R. Silver (2011) Sleep, Rhythms, and the Endocrine Brain: Influence of Sex and Gonadal Hormones. *J. Neurosci.*, 31:16107-16116.

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