



Apr 25th, 10:30 AM - 4:30 PM

## **The Effects of Bilateral Injections of Neurokinin K into the Dorsal Midbrain Central Gray on Female Rat Sexual Behavior: A Pilot Study**

Christopher Barrett  
*Illinois Wesleyan University*

Dr. Wayne Dornan, Faculty Advisor  
*Illinois Wesleyan University*

Follow this and additional works at: <https://digitalcommons.iwu.edu/jwprc>

---

Barrett, Christopher and Dornan, Faculty Advisor, Dr. Wayne, "The Effects of Bilateral Injections of Neurokinin K into the Dorsal Midbrain Central Gray on Female Rat Sexual Behavior: A Pilot Study" (1992). *John Wesley Powell Student Research Conference*. 54. <https://digitalcommons.iwu.edu/jwprc/1992/posters/54>

This Event is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact [digitalcommons@iwu.edu](mailto:digitalcommons@iwu.edu).

©Copyright is owned by the author of this document.

**THE EFFECTS OF BILATERAL INJECTIONS OF NEUROKININ K  
INTO THE DORSAL MIDBRAIN CENTRAL GRAY ON FEMALE RAT  
SEXUAL BEHAVIOR: A PILOT STUDY**

Christopher Barrett, Department of Psychology, IWU, Dr. Wayne Dornan\*

The dorsal midbrain central gray (dMCG) an area within the central nervous system, has been implicated in the neural control of sexual receptivity (lordosis behavior) in steroid-primed ovariectomized female rats. Bilateral lesions of the dMCG disrupt lordosis, while electrical stimulation facilitate the display of lordosis behavior in steroid-primed ovariectomized female rats. Additionally, bilateral injections of the neurokinin substance P (sP), into the dMCG have been reported to facilitate lordosis behavior when compared to injections of saline (controls). Recently, accumulating evidence suggests that neurokinin K (NKK), another product of the sP gene, regulates the expression of male rat copulatory behavior. Bilateral injections of NKK into the preoptic area of male rats has been reported to have an inhibitory effect on the expression of male rat sexual behavior. Therefore, this pilot study assessed what effects NKK will have upon female rat sexual behavior. NKK or saline was injected bilaterally into the dMCG of steroid primed ovariectomized female rats, and the effects of these injections on sexually receptivity was assessed.