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

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.