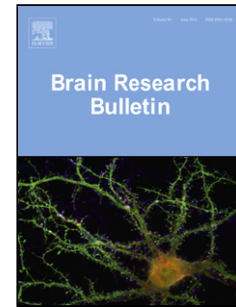


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Title page

No effect of sex and estrous cycle on the fear potentiated startle response in rats**Authors:**

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Supplement 1: Record of daily vaginal smears of female rats

Highlights:

- 1) Female and male rats do not differ in their fear-potentiated startle response.
- 2) Gonadal hormone fluctuations during the estrous cycle do not affect the rat fear-potentiated startle response
- 3) Female and male rats do not respond differently to the anxiolytic effects of benzodiazepines

Abstract:

The prevalence of anxiety disorders is higher in women than in men. Yet preclinical studies on anxiety are mostly performed in male subjects. This may have limited our understanding of mechanisms contributing to anxiety disorders. Since fear conditioning is considered an important factor in the etiology of anxiety disorders, the present study aimed to investigate the effect of sex and estrous cycle on conditioned fear and the anxiolytic effect of benzodiazepines in rats.

We measured the fear-potentiated startle response in male and female rats during different estrous cycle stages and performed a replication study in a separate cohort. In addition, we assessed the response to diazepam (0-3.0 mg/kg IP) and chlordiazepoxide (0-10 mg/kg IP) in male and female rats in proestrous/estrous and diestrous stage.

Our results showed that there were no sex differences in the expression of fear-potentiated startle. The estrous cycle also did not affect the fear-potentiated startle response. In addition, male and female rats did not differ in their fear-potentiated startle response following

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