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Depressive-like Behavior is Elevated among Offspring of Parents Exposed to
Dim Light at Night Prior to Mating

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HIGHLIGHTS

- Parents are exposed to DARK or dLAN for 9 weeks prior to pairing. Mating, gestation, and offspring rearing occurred under DARK nights.
- Maternal exposure to dLAN decreased offspring sucrose intake, time to first float bout, and hippocampal GR expression in adult offspring.
- Paternal exposure to dLAN increased time spent floating and hippocampal GR in adult offspring.
- Light at night has transgenerational effects on offspring behavioral and neuroendocrine system.

ABSTRACT

Rates of major depressive disorder (MDD) have steadily increased over the past 50 years. Many factors have been implicated in the etiology of depressive disorders and environmental influences are being increasingly recognized. The increase in depression rates has coincided with increased artificial nighttime lighting. Exposure to light at night (LAN) has been associated with increased depressive-like behavior in rodents and decreased mood in humans. However, relatively little is known on the

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