

New Findings Regarding Light Intensity and Its Effects as a Zeitgeber in the Sprague-Dawley Rat

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Abstract: In most mammals, the suprachiasmatic nucleus of the anterior hypothalamus has been implicated as the central driving mechanism of circadian rhythmicity. The photic input from the retina, via the retino-hypothalamic tract, and modulation from the pineal gland help regulate the clock. In this study, we investigated the effects of low light intensity on the circadian system of the Sprague-Dawley rat. A series of light intensity experiments were conducted to determine if a light level of 0.1 Lux will maintain entrained circadian rhythms of feeding, drinking, and locomotor activity.