Presentation Abstract Submission

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Research Title	The effects of social stress on circadian rhythms and sleep-wake cycle

Abstract:

There is a close association between mood, the circadian system and sleep regulation. Sleep is necessary for normal functioning of the brain during the wake state and disrupted circadian rhythms and sleep is a core feature of many psychiatric diseases including major depressive disorder (MDD). Moreover, chronic stress has detrimental effects on sleep. We assessed the link between stress, daily rhythms and sleep in mice using a chronic social defeat stress (CSDS) paradigm. Stress-susceptible mice displayed increased fragmentation of Non-Rapid Eye Movement (NREM) sleep both pre- and post-stress. Moreover, we found that stress susceptible mice exhibited: (i) blunted diurnal rhythms in activity in neural circuits that may play a role in regulating daily rhythms in mood and (ii) decreased rate of photoentrainment. Our findings emphasized an interaction between stressed induced mood disorders, circadian rhythms and sleep.

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