

OXYTOCIN PREVENTS THE INCREASE OF COCAINE-RELATED RESPONSES

PRODUCED BY SOCIAL DEFEAT



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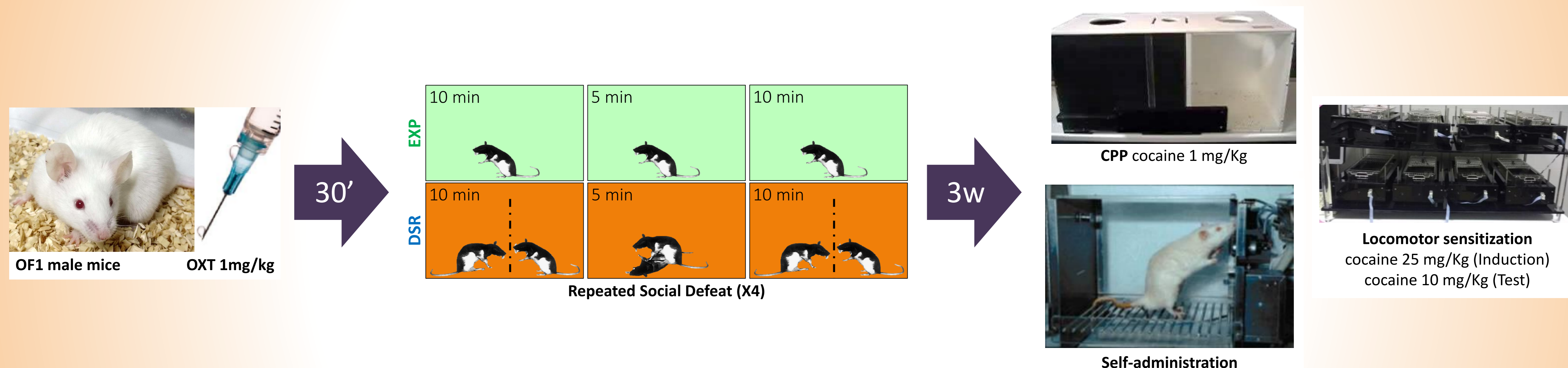
INTRODUCTION

The neuropeptide oxytocin (OXT) plays a critical role in the regulation of social and emotional behaviors. OXT plays a role in the stress response and in drug reward, but to date no studies have evaluated its implication in the long-lasting increase of the motivational effects of cocaine induced by repeated social defeat (SD).

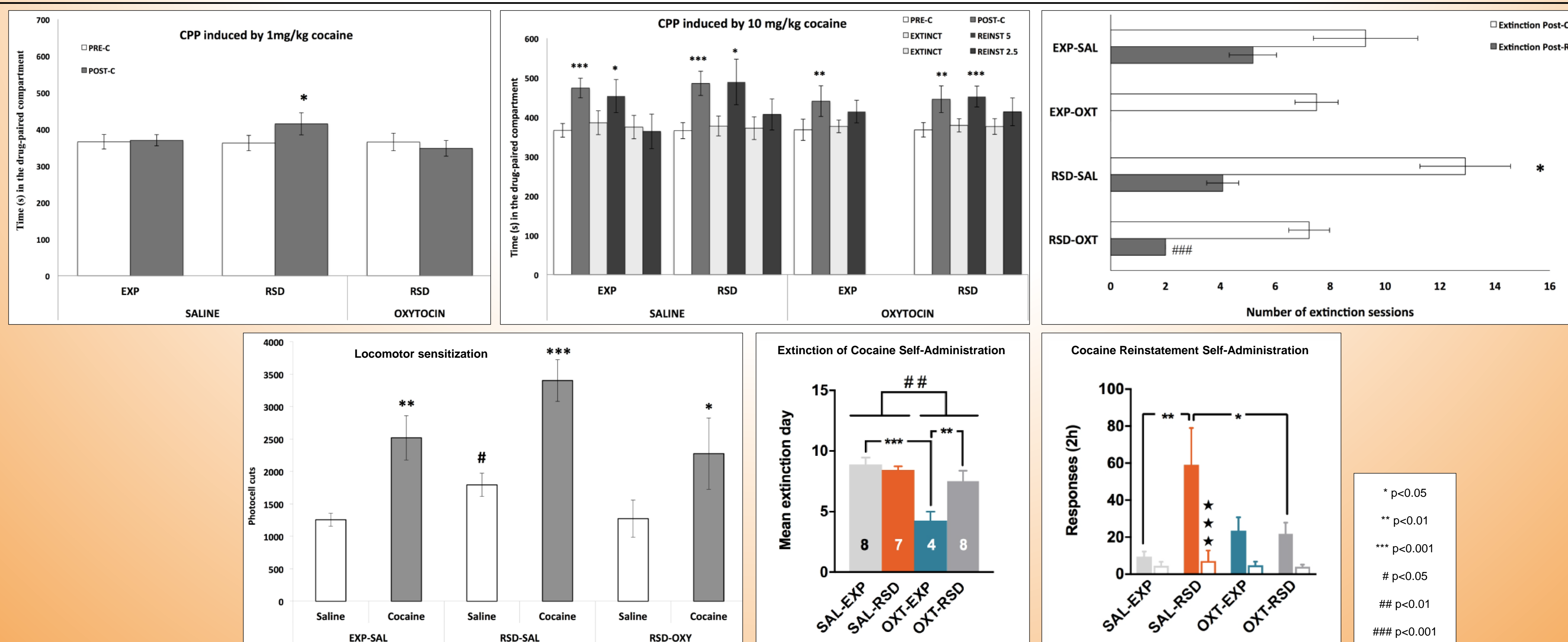
OBJECTIVE

Despite the clear role of OXT in the stress response and in the rewarding effects of drugs, no studies to date have evaluated its role in the long-lasting increase of the motivational effects of cocaine induced by RSD. To respond to this gap in the literature, we administered 1 mg/kg of OXT 30 minutes before each episode of social defeat and three weeks after the last defeat, we evaluated the motivational effects of cocaine in different paradigms, including the CPP, the locomotor sensitization and the SA.

MATERIAL & METHODS



RESULTS



Our results confirm that raising the levels of OXT during social defeat stress can block the long-lasting effects of this type of stress. OXT counteracts the anxiety induced by SD. Moreover, OXT prevents SD-induced increases in the motivational effects of cocaine. Administration of OXT before each social defeat blocked the SD-induced increment in the conditioned rewarding effects of cocaine in the CPP, favors the extinction of cocaine-associated memories in both the CPP and SA, and decreases reinstatement of cocaine-seeking behavior in the SA.

In conclusion, the long-lasting effects of SD are counteracted by administering OXT prior to stress.

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