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**Title:**  $\Delta$ 9- THC chronic exposure in adolescent rats: Effects on cocaine conditioned place preference

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Epidemiological studies have shown that use of marijuana during early adolescence is associated with a higher risk for other substance abuse disorders. The extent to which this represents neuroadaptation responses secondary to THC (main psychoactive ingredient of marijuana) exposure versus genetic vulnerability that underlies high risk with experimentation with drugs in general is unclear.

In this study we investigated if chronic exposure of  $\Delta$ 9- THC during the adolescence period in the rat affected the reinforcing responses to cocaine (assessed with condition place preference). Male Sprague Dawley rats (age 3-4 weeks) were administered daily either  $\Delta$ 9- THC (0.75 and 2 mg/kg) or saline for 21 days. The day after the last injection, we started the Conditioned Place Preference (CPP) segment of the study: [*day 1: preconditioning; days 2-9 conditioning phase {cocaine (5 and 10mg/kg) and saline on alternate days}; day 10: test day*].

The results showed that  $\Delta$ 9- THC pretreatment rats resulted in decreased CPP for cocaine (5mg/kg or 10mg/kg) On the other hand there were no differences between the group on cocaine induced dose-dependent increases in locomotor activity. These results provide evidence of that exposure to THC during the adolescent period changes the sensitivity to cocaine-induced conditioning. The extent to which this generalizes to conditioning to other drug but also non-drug reinforcers requires further investigation

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