

## **Effects of Antidepressants on Behavioral Assessment in Adolescent Rats**

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**Objective:** To assess the usefulness of the forced swim test (FST) in juvenile rats and to determine the efficacy of two antidepressants on the behavioral changes of adult and juvenile rats.

**Design:** Animal interventional study.

**Setting:** Department of Pharmacology, Creighton University, Omaha, USA.

**Method:** Adult and 28 days old rats received saline, Imipramine or Fluoxetine three times during the 24 hours between 15 minutes pre-swim and the 5 minutes swim test. Immobility, swimming and climbing behaviors were measured. Locomotor activity was assessed for 28 days old rats in an open field test.

**Result:** Imipramine-treated juvenile rats had a decrease of immobility and increase climbing behavior, whereas Fluoxetine-treated juveniles had a decrease in immobility and increase in swimming behavior, both in a dose dependent manner.

**Conclusion:** The present study clearly showed that the antidepressant effects of Imipramine and Fluoxetine can be applied to juvenile rats in the forced swim test; it could be validated as practical model for screening of the antidepressant effects.

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