

## FORCED SWIMMING TEST (FST)

*Key-words: Depression, Behavioral despair, Antidepressants*

The Forced Swimming Test (FST) measures “**behavioral despair**” which is an index of depression-like state in rodents <sup>(1,2)</sup>.

**Rationale** – Depression-like state is measured by the immobility behavior of the animal placed in a stressful and inescapable situation. Immobility behavior, which indicates “behavioral despair”, is reduced by antidepressants.

**Method** – Animal is dropped in a glass cylinder filled with water. The animal first attempts to escape and then progressively adopts an immobile posture, making only small movements to keep its head above water.

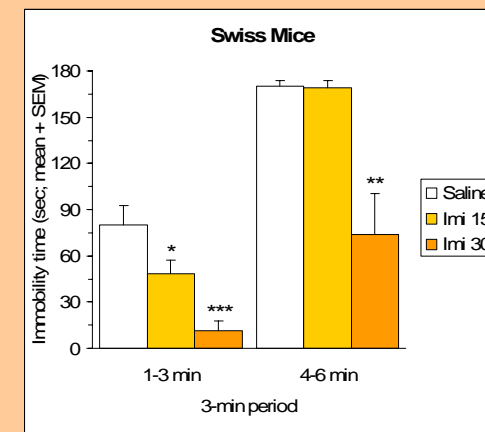
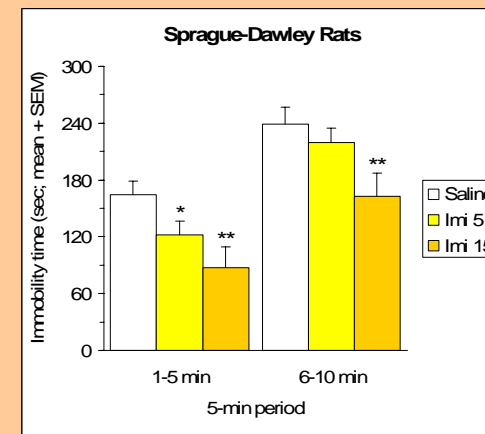
- The **index of depression** is the immobility time.

### Example

***Imipramine, a reference antidepressant compound reduces immobility time in rats and mice***

**References;** 1. Porsolt et al, Eur. J. Pharmacol., 51:291-294, 1978  
 2. Poncelet et al., Psychopharmacology (Berl), 90:139-141, 1986

**Effect of imipramine (Imi; doses in mg/kg) on immobility time in rats and mice**



Difference vs. Saline group: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$