



Short communication

Trans-species assessment of antidepressant activity in a rodent model of depression

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Abstract:

Olfactory bulbectomy (OB), a preclinical model of depression, has most often been performed and validated in rats, but not as comprehensively in other rodent species. This study demonstrated that bulbectomy induced a hyperactive response in the open field test in three rodent species, namely the rat, mouse and hamster. OB, in all species, produced an increase in the distance travelled in the perimeter of the arena. The OB mouse was the only species to demonstrate increased distance travelled in the central part of the arena. These behavioral disturbances were attenuated in all species following chronic treatment with the antidepressant imipramine.

Key words:

olfactory bulbectomy, open field, rat, mouse, hamster, imipramine