

**A REVIEW ON ANIMAL MODELS RELATED TO DEPRESSION****SRIVASTAVA N¹, SINGH S, MONISHA S, MUTHUKUMAR A AND PAARAKH PM**
Department of Pharmacology, The Oxford College of Pharmacy, Bengaluru, Karnataka, India*Corresponding Author: Dr. Noopur Srivastava: E Mail: srivastava.n25@gmail.comReceived 15th March 2023; Revised 8th July 2023; Accepted 5th Oct. 2023; Available online 1st July 2024<https://doi.org/10.31032/IJBPAS/2024/13.7.8156>**ABSTRACT**

The enormous health burden associated with depression is a result of both, the high prevalence of depressive disease and the inadequate efficacy of currently available pharmacological therapies. It is impossible to reproduce depression in animal models because there is a lack of a fundamental grasp of the underlying illness mechanisms in this condition. The current models of depression aim to create in experimental animals measurable correlates of human symptoms. The extent to which the models generate characteristics like a depressive state varies, and models that take stress exposure into account are frequently used. Learned helplessness, the forced swim test and tail suspension test are paradigms that use acute or sub-chronic stress exposure paradigms. Modern models are either based on modifying the environment to which rodents are exposed (during development or adulthood) or on genetic components (e.g., gene deletion or overexpression of candidate genes, targeted lesions of specific brain regions, electrophysiological control of specific neuronal populations, etc.). These modifications can change behavioral and biological results that are connected to various main depressive symptomatic and pathophysiological features. These techniques use brief exposure to unavoidable or uncontrollable stress and can accurately detect an antidepressant drug response. Long-term models, which may more precisely reflect the processes that result in depression, include chronic mild stress models, early-life stress models, and social conflict models.

Keywords: Depression, Antidepressant, Animal models, Validity