

# Open field behavior and habituation in rats irradiated

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## Aim of the project

Studies of the effects of radiation on the central nervous system (CNS) are of great importance for solving the problems of cosmic radiobiology. Behavioral tests are used to assess the damaging effect of radiation on the brain. It is planned to acquaint students with the Open Field test (OFT).

## Description

Studying the behavior of mice after irradiation is an important way of assessing radiation risks. The Open Field test (OFT) is the main method of analyzing the behavior of mice. In the course of practice, students will get acquainted with the device of the test, master the skill of determining the types of behavioral reactions. During the practice, students will see the degree of habituation of different groups of animals to the test conditions.



## Practical tasks for students

1. Training in working with animals
2. Identifying types of behavior
3. Data analysis

## Experience

1. Experience with animals
2. Course of physiology
3. Course of neurobiology
4. Accuracy

## Number of participants

The number of participants is limited to three.

## **Recommended literature**

1. Oleg V. Belov , Ksenia V. Belokopytova, Ara S. Bazyan , Vladimir S. Kudrin , Viktor B. Narkevich , Aleksandr A. Ivanov , Yury S. Severiukhin , Gennady N. Timoshenko , Eugene A. Krasavin. Exposure to  $^{12}\text{C}$  particles alters the normal dynamics of brain monoamine metabolism and behaviour in rats, *Physica Medica* 32 (2016) 1088–1094

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