

AN AUTOMATED SYSTEM FOR ANALYSIS OF MOUSE MOVEMENT ACTIVITY

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Abstract

In this paper an automatic system for measuring motor abilities of mice and the test results of two groups of control mice are presented. The system was designed for the benefit of experiments related to diagnostics of stroke neurological symptoms. Here we tested the validity of a system for monitoring long-term mobility of wild mice using software specifically designed for automated data gathering and analyses. The system analysed all data and filled the database with measured values characterizing the mobility of mice. Subsequent analysis revealed that there is no difference in two groups of control animals. The results indicate that this type of monitoring might constitute a reliable tool for examining neurological functions in laboratory animals.

Keywords: computed neurological examination, image analysis, image processing, motor function