

QUANTITATIVE IMAGE ANALYSIS IN THE STRUCTURAL SYNAPTIC PLASTICITY STUDIES

Summary

The analysis of confocal microscopy images has started to play a significant role in the brain structure analysis. An insight into structural synaptic plasticity may be the key to elucidate the molecular basis of many neurodegenerative disorders. Almost every experiment demands a quantitative analysis of

brain tissue images, which requires specialized software able to cope with the structural complexity of the data. In the following text we will review common issues arising while performing the confocal image analysis and dedicated algorithms designed to overcome those problems.