

Although single-cell microelectrode recordings (MER) are used to confirm stereotactic targets during surgery for movement disorders, there is a lack of automatic exploration methods which are designed for guiding surgeon during identifying appropriate target for deep-brain stimulation (DBS) implant. We propose automatic visualization method for MER to determine corresponding deep brain nuclei. The underground hypothesis is that nuclei automatic identification can help to determine the subthalamic nucleus (STN) in Parkinson's disease patients. This approach aims at improving patient outcome by helping neurosurgeons objectively identify target structures.