

## S16-Progress of Neural Stimulation in Neuropathic Pain Using Animals

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To establishing the treatment method for neuropathic pain, we are currently studying on neural stimulation methods such as deep brain stimulation (DBS) and motorcortex stimulation (MCS).

In DBS, we focused on ventral posterolateral nucleus (VPL). In our study from DBS, we demonstrated that the pain was effectively reduced in mechanical allodynia and cold allodynia.

In MCS, the pain was also effectively reduced.

Besides, we studied on imaging studying using micro-PET. We measured the activities of brain structures from micro-PET images.

In present, to develop the efficiency of neural stimulation on neuropathic pain, we are currently focused on developing novel and easier neural system and electrode. Moreover, we are also focused on the changes of neuronal activation using extracellular recording including removing stimulation artifact.

In next, we are planned to develop a new system including novel features such as wireless communication and wireless neural recording.

In our study, we expect that our system could be very helpful for researchers and clinicians to understand the mechanism of neuropathic pain.

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