

LS07-040 - A novel role for opioids - Reversal of established hyperalgesia and chronic pain

Abstract

Pain is the major cause for seeking medical help and may severely threaten the quality of life of many patients. In the central nervous system pain amplifier exist which exaggerate pain. We have shown previously that synaptic long-term potentiation in pain pathways contributes to pain amplification. We now discovered that opioids may reverse synaptic long-term potentiation in animal models and in human volunteers. In this project proposal we plan to explore this novel opioid action and translate the experimental finding into a clinically useful opioid therapy scheme to normalize pain sensitivity in selected groups of pain patients. We thereby aim at an unprecedented causal therapy for some forms of severe pain.

Keywords:

pain generator, sensitization, hyperalgesia, long-term potentiation, chronic pain, opioid

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Further links to the persons involved and to the project can be found under <https://wwtf.at/funding/programmes/ls/LS07-040/>