The anti-nociceptive properties of natural marine compounds in chronic constriction injury-induced neuropathic pain in rats

研究生：黃世英　指導教授：溫志宏

Marine organisms are anticipated to be a rich source of leading compounds for potential drug development for treatment of human neuroinflammatory diseases, such as neuropathic pain. In our previous study, intrathecal injection of lemnalol markedly inhibited spinal proinflammatory mediator tumor necrosis factor alpha expression in microglial cells and astrocytes in neuropathic rats. In the present study, we attempted to elucidate the effect of i.t. lemnalol on glial-derived neurotrophic factor (GDNF) on spinal astrocytes. We also investigated the anti-nociceptive properties of two natural marine compounds, WHC-1 and WHC-2, on chronic constriction injury (CCI) in a well-established animal model of neuropathic pain. Collectively, our results indicate that lemnalol, WHC-1, and WHC-2 are a potential therapeutic agents for neuropathic pain. Our findings suggest that further exploration of the effects of lemnalol, WHC-1, and WHC-2 on glial proinflammatory responses is warranted.