Advances in Study of Molecular and Cellular Mechanisms Underlying Pain and Itch

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Message from the Guest Editors

Pain and itch are distinct peripheral sensory modalities. Whereas pain leads to withdrawal responses following noxious stimulation, itch (pruritus) leads to scratching. The treatment of pain and itch continues to be a major clinical challenge. Accumulating evidence emphasizes that neuroinflammation and oxidative insult drive the peripheral and central sensitization of nociceptive and itch circuitry, which governs multiple pain and itch perceptions after peripheral inflammation, nerve injury, chemotherapy and cancer. The specific molecular and cellular mechanisms underlying pain and itch development remain unclear and have attracted considerable attention.

The overall aim of this Special Issue is to share and discuss recent achievements to understand and/or augment the neuroinflammatory and neural circuits underlying the peripheral and central sensitization in pain and itch with different etiologies. Also, we aim to summarize the most recent insights into the pathogenesis of pain in females, to help inform clinical practice and to design new research addressing unanswered questions.

Special Issue

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Message from the Editor-in-Chief

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