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*Sexually Dimorphic Mechanisms of Nociplastic Pain*

Dr. La has a long-standing research interest in chronic pain and developing therapeutic tools to manage this debilitating condition. His current research focuses on mechanisms of pain chronification, namely transition from acute to chronic pain, without underlying persistent tissue injury. This type of chronic pain is recently termed 'nociplastic pain', implying long-term changes in the nociceptive neural circuit itself. There is growing appreciation that ongoing primary afferent inputs and glial activation play a pivotal role in triggering and maintaining these long-term changes at the level of the spinal cord where peripheral and central neurons, together with non-neuronal cells, form an integrated nociceptive neural circuit. Using multidisciplinary approaches such as behavioral, molecular biological, electrophysiological, and  $\text{Ca}^{2+}$ -imaging tools, his lab investigates the mechanisms triggering and maintaining the long-term changes, which will be used for the development of mechanism-based therapies to convert chronic pain back to normally resolving pain.