

The Neuroscience of Pain:

Biobehavioral, Developmental, and Psychosocial Mechanisms and Targets for Intervention

Guest Editors: Lauren Atlas, PhD, and Mustafa al'Absi, PhD

The central nervous system plays a critical role in the association between psychological factors and pain. The neural circuits that are involved in these bi-directional relationships include several systems that influence peripheral processes relevant to pain perception. It is possible that transient psychosocial factors as well as long-term consequences of developmental trajectories adversely affect these neurobehavioral pathways. The biobehavioral mechanisms underlying pain perception and pain-related disorders can therefore be best understood from a neuroscientific perspective, with important implications for multidisciplinary interventions. Exploring the neuroscience of the biobehavioral and developmental mechanisms of pain is the goal of the upcoming Special Issue of *Psychosomatic Medicine*.

The special issue will focus on the following topics:

1. the epidemiology of pain-related disorders
2. the neuroscience of pain perception and pain-related disorders
3. the association between early life adversity and the neural circuits involved in pain regulation
4. the biobehavioral pathways linking neural pain-related systems and pain perception
5. an integrated approach to pain interventions that incorporate neuroscientific and biobehavioral approaches

We are particularly interested in papers that focus on the interface of biological, neurocognitive, behavioral and psychological processes as related to pain. These neurobiological and psychophysiological mechanisms can include (but are not limited to) key regulatory systems (e.g., autonomic, endocrine, immune), alterations in neural structure and function as related to pain in clinical and non-clinical settings, and developmental factors. Preference will be given to papers that include experimental manipulations or interventions.

The goal of the special issue is to shed light on the brain mechanisms by which biological and behavioral factors influence pain in order to increase opportunities to translate novel findings about these mechanisms into multidisciplinary interventions that can prevent or reduce pain-related disorders.

The review process will include two stages. The first stage will involve submission of an abstract formatted for *Psychosomatic Medicine*. The abstract can be up to 500 words long allowing for more detailed description of methods and results, and may include one figure. After the editors review the abstracts, authors will be invited to submit a full paper. The projected timeline for the special issue is below.

Timeline for Submissions:

February 19, 2017: Abstracts due

March 1, 2017: Invitations extended to authors for full manuscripts

May 15, 2017: Invited manuscripts due

July 1, 2017: Reviews provided to authors

September 1, 2017: Revised manuscripts due

Late 2017: Special issue articles will appear as publish-ahead-of-print

Abstracts should be submitted to:

Dr. Lauren Atlas, Guest Editor

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