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The Neurobiological Mechanisms of Sleep and Sleep Disorders

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Message from the Guest Editors

Sleep disorders affect millions of Americans and are commonly found with other existing medical conditions, including cardiovascular disease, chronic pain, diabetes, various neurological disorders, and neurodegenerative disease. Several hypotheses exist for the cellular and molecular mechanisms that underlie the need for sleep; however, sleep function remains enigmatic and is a contentious topic. In this Special Issue, we invite authors to explore what neurobiological factors contribute to the need for sleep and how the dysfunction of these mechanisms may relate to sleep disorders. Studies using various animal models or different species, including vertebrate and invertebrate, are welcome. Experimental work using various genetic, epigenetic, molecular, and cellular circuits and systems or behavioral approaches is appropriate for this topic. Research studies or reviews exploring new types of methodologies, analyses, or computational models are also encouraged. This issue aims to complement the current literature in the sleep field, supporting mechanisms and theoretical concepts underlying the physiological function of sleep.



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