



Regulation and Function of Neural Attributes: From Gene to Behavior

Guest Editor:

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Message from the Guest Editor

Neural circuits governing inherent behaviors must orchestrate social and environmental cues and prompt these behaviors. However, there are a few adequate functional analyses of cellular and molecular genetic approaches defining the relationship between each brain area and its corresponding neural circuit. Recent innovative analyses of direct neuronal manipulation, e.g., optogenetics and chemogenetics, have forged a new path for neuroscience, which facilitates the observation of neurons directed toward a particular target gene. These techniques can artificially manipulate specific brain areas and neurons to define the physiological roles and interactions between the organizational elements of concomitant neurons and behaviors.

Neuronal manipulation using these techniques has been accomplished, including sexual behavior, aggressive behavior, parental behavior, anxiolytic behavior, and various other behaviors, which denote integral functions for living organisms.

This Special Issue focuses on these pivotal techniques that have opened up a new field of neuroscience and on the extent to which this field has been explored by researchers.





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Message from the Editor-in-Chief

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