

## Special Issue on **Gliotransmission: How Glial Cells Modify Neuronal Function?**

# CALL FOR PAPERS

Glial cells are the most abundant cell type in the nervous system. One of them is the astrocytes and for many years the common thought was that they only serve as structural and metabolic substrate for neuronal function. However, now it is broadly recognized that astrocytes and other glial cells (i.e., microglia, oligodendrocytes, tanycytes, and NG2 cells) can release bioactive molecules, which are capable of modulating and governing synaptic transmission, among other neuronal functions. Thus, the idea that glial cells are mere nurse cells has been forgotten and they are now considered as critical protagonist of brain function and higher information processing. Different types of transmitters released by glial cells have been identified and several routes for their release have been described including  $\text{Ca}^{2+}$ -dependent exocytosis, carrier membrane transport, and opening of a wide-range of channels encompassing P2X7 receptors, volume-regulated anion channels, hemichannels, and pannexons. Currently, the mechanisms by which glial cells modulate different aspects of neuronal function are still far from being fully understood.

Therefore, with this special issue we aim to gather a collection of original research articles, short communications, perspectives, and review articles, providing the latest progress and insights into the field of gliotransmission and its impact on neuronal function and plasticity.

Potential topics include but are not limited to the following:

- ▶ Molecular mechanisms of gliotransmission
- ▶ The importance of gliotransmission in neuronal function
- ▶ The interplay between transmitters released by glial cells and neurotransmitters
- ▶ How glial cells exert their effects in neuronal function
- ▶ Pharmacological approaches to study glia-to-neuron interactions
- ▶ Gliotransmission in the peripheral nervous system

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/np/glio/>.

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### **First Round of Reviews**

Friday, 20 October 2017

### **Publication Date**

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