

Special Issue

Gangliosides: Modes of Action and Cell Fates

Message from the Guest Editor

Gangliosides, sialic acid-containing glycosphingolipids are ubiquitously expressed mainly on the cell membrane in vertebrates. The structure of carbohydrate moieties varies depending on the development and differentiation of tissues and cells. The main findings can be summarized as: (i) Gangliosides play a pivotal role in the maintenance of the integrity of nervous systems, and also in repair of damaged nerve tissues; (ii) Gangliosides are important for the architecture and function of membrane microdomains such as lipid rafts; and (iii) Gangliosides regulate cell signals at lipid rafts based on the interaction with ganglioside-recognizing molecules, leading to the decision of cell fates. The molecular cluster formation around gangliosides is now attracting many researchers in this field. We would like to focus on the modes of action and resulting cell fates to further understand the implication of gangliosides in our bodies. This Special Issue calls for original research and reviews and perspectives that address the progress and current knowledge in the research on gangliosides, their modes of action and cell fates.

Guest Editor

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Deadline for manuscript submissions

closed (31 October 2019)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/21435

*International Journal of
Molecular Sciences*
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