



## Microgravity and Cell Adherence

Guest Editor:

**Dr. Johann Bauer**

SiHaTho GmbH, Postfach 1106,  
35201 Biedenkopf, Germany

Deadline for manuscript  
submissions:

**closed (31 December 2019)**

### Message from the Guest Editor

Cell adherence is changed when cells are exposed to microgravity. In human or animal cells, changes of adherence became especially apparent when scaffold-free organoid formation was investigated, which included the cells' detachment from the surface of the culture flasks, followed by three-dimensional aggregation. In this process, distinct proteins and genes coding for them contribute either to a cell's adherence to a substratum or to contact with neighboring cells. Furthermore, adhesion-dependent initiation of microbial biofilm formation can be triggered by microgravity-induced changes of gene expression patterns, protein accumulation, and carbohydrate metabolism.

Articles and reviews will be collected in which either the chemical/biochemical background of external signals is described, or cellular mechanisms are unveiled that up- or down-regulate the cells' adhesion to their environment under microgravity.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. José L. Quiles

Department of Physiology,  
Institute of Nutrition and Food  
Technology “Jose Mataix”,  
Biomedical Research Center,  
University of Granada, Avda.  
Conocimiento s/n, 18100 Armilla,  
Granada, Spain

## Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

## Contact Us

---

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/ijms  
ijms@mdpi.com  
X@IJMS\_MDPI