Special Issue

Microgravity and Cell Adherence

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 scaffoldfree 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.

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2019)



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Message from the Editor-in-Chief

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