



## Organoids and Advanced 3D Models in Biomedical Research

Guest Editor:

**Dr. Marta Alves da Silva**

Laboratory Animal Science  
Group, i3S-Instituto de  
Investigação e Inovação em  
Saúde, Rua Alfredo Allen, 208,  
4200-135 Porto, Portugal

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submissions:

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### Message from the Guest Editor

Dear Colleagues,

Biomedical research faces a demanding need for the replacement of animal experiments by reliable, safe, and accurate in vitro models that fully recapitulate the structure and function of human tissues. Advances in stem cells bioengineering enabled adult stem cells (ASCs) and induced pluripotent stem cells (iPSCs) long-term culture in a 3D cellular structure named organoids. They recreate cellular architecture; are functionally similar to the tissue they are modeling and their use as models allow research without confusing influences from the local microenvironment.

This Special Issue aims to disseminate state-of-the-art science around organoid model systems, covering organoids models in 3D microenvironments, genetic engineering of organoids and microphysiologic systems, as well as methods for improving organoids culture and high throughput screening.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but not limited to) the following: disease modeling, personalized medicine, drug screening, tissue engineering, biomaterials, regenerative medicine and 3Rs.





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Department of Computer  
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*Biomolecules* Editorial Office  
MDPI, St. Alban-Anlage 66  
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