



an Open Access Journal by MDPI

Biomaterials Approaches for Disease Modeling

Guest Editor:

Dr. Christopher M. Madl

Baxter Laboratory for Stem Cell Biology, Stanford University, Stanford, CA, USA

Deadline for manuscript submissions: closed (1 December 2021)

Message from the Guest Editor

This Special Issue on "*Biomaterials Approaches for Disease Modeling*" will focus on original research papers and comprehensive reviews covering the use of engineered materials systems to recapitulate key aspects of diseased tissue in vitro. Topics of interest for this Special Issue include, but are not limited to, the following:

- 1. Three-dimensional culture of patient-derived organoids to model monogenic diseases, cancer, or infection.
- 2. Development of microphysiological systems to model and characterize disease phenotypes.
- 3. 2D and 3D approaches to direct morphogenesis of stem cell-derived microtissues, such as photolithographic patterning and 3D printing/additive manufacturing
- 4. Novel chemical approaches to build complex cellular microenvironments.
- 5. Stimuli responsive materials to mimic disease progression in vitro.
- 6. Development of preclinical drug screening platforms with improved predictive ability and/or reproducibility.









an Open Access Journal by MDPI

Editor-in-Chief

Message from the Editor-in-Chief

Prof. Dr. Anthony Guiseppi-Elie

Department of Biomedical Engineering, Texas A&M University, College Station, TX 77843, USA You are invited to contribute a research article or a comprehensive review for consideration and publication in *Bioengineering* (ISSN 2306-5354). *Bioengineering* is published in open access format – research articles, reviews and other contents are released on the Internet immediately after acceptance. The scientific community and the general public have unlimited and free access to the content as soon as it is published. *Bioengineering* provides an advanced forum for the science and technology of bioengineering. We would be pleased to welcome you as one of our authors.

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, CAPlus / SciFinder, Inspec, and other databases. **Journal Rank:** JCR - Q2 (*Engineering, Biomedical*)

Contact Us

Bioengineering Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/bioengineering bioengineering@mdpi.com X@Bioeng_MDPI