



Interactions of Cells with Biomaterials for Regenerative Medicine 2.0

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Deadline for manuscript
submissions:

closed (15 January 2022)

Message from the Guest Editor

Biocompatibility has a very broad meaning, including non-toxicity of the materials, their ability to support cell adhesion, proliferation, and differentiation, as well as their non-immunogenic properties. Therefore, the evaluation of major cell–biomaterial interactions is a key factor determining the biocompatibility and clinical usefulness of new biomaterials. It is important to know that in vitro tests can effectively replace animal models in the preliminary evaluation of: 1) cytotoxicity, 2) cell adhesion, spreading, and proliferation on a biomaterial, 3) cell differentiation, and 4) immune response to a biomaterial.

The main goal of this Special Issue is to highlight the recent progress in molecular biology and biotechnological techniques that allow a better exploitation of the potential of in vitro cellular models for biocompatibility testing of novel biomaterials, suggesting molecular mechanisms of cell adhesion, proliferation, and biomaterial-induced activation of immune cells. All papers (reviews and original research articles) dealing with in vitro and ex vivo determination of cell–biomaterial interactions are welcome.





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Message from the Editor-in-Chief

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