



## Interactions of Cells with Biomaterials for Regenerative Medicine

Guest Editor:

**Prof. Dr. Agata Przekora**

Independent Unit of Tissue  
Engineering and Regenerative  
Medicine, Medical University of  
Lublin, 20-093 Lublin, Poland

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### 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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### Prof. Dr. Maurizio Battino

Department of  
Odontostomatologic and  
Specialized Clinical Sciences,  
Sez-Biochimica, Faculty of  
Medicine, Università Politecnica  
delle Marche, Via Ranieri 65,  
60100 Ancona, Italy

## Message from the Editor-in-Chief

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*International Journal of Molecular  
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MDPI, Grosspeteranlage 5  
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