



## Advanced Nanomaterials for Biomedical Applications

Guest Editor:

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### Message from the Guest Editor

The development of advanced materials for biological and medical applications has increasingly received attention over the last several years. This Special Issue covers broad aspects from biosensors and diagnostic agents with diversified and specific characteristics in terms of composition and functionality, to fundamental concepts of biosensing using nanomaterials; their synthesis; engineering their sensing properties based on optical, electrochemical, magnetic, acoustic, and thermal transduction; their integration with biological elements; the design of biosensing devices; the evaluation of their sensing performance; and the exploration of their broad applications from medical diagnostics, industry, environmental control, food analysis, and defense applications. I invite potential authors to focus on recent progress in the development of new approaches for the synthesis of these advanced nanomaterials for biosensing with different chemical compositions (metals, semiconductors, metal-oxides, polymers, graphene, DNA, enzymes, etc.), nanoscale dimensions and morphologies (particles, pores, wires, tubes, rods, etc.), and the characterization of their sensing properties.





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## Editor-in-Chief

### **Prof. Dr. Pankaj Vadgama**

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Materials Science, Queen Mary  
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## Message from the Editor-in-Chief

The biomaterials field is one of the largest and fastest growing research areas both in the scientific community and in the industrial one. Biomaterials are the result of collaborations between different disciplines: chemistry, medicine, pharmacology, engineering and biology. The objective of this collaboration is to lead to the implementation of new devices to restore form and human body functions. The mission of the *Journal of Functional Biomaterials* (*JFB*) is to focus attention on physico-chemical characteristics and their importance in the interactions between biomaterials and living tissues. *JFB* seeks to publish studies on the preparation, performance and use of biomaterials in biomedical devices, as well as regarding their behavior in physiological environments. We are pleased to welcome you as our authors.

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