



## Metallic Biomaterials Surface Engineering

Guest Editors:

**Prof. Dr. Tullio Monetta**

Department of Chemical  
Engineering, Materials and  
Industrial Production, University  
of Napoli Federico II, Napoli, Italy

**Dr. Annalisa Acquesta**

Department of Chemical  
Engineering, Materials and  
Industrial Production, University  
of Napoli Federico II, Napoli, Italy

**Dr. Anna Carangelo**

University of Napoli Federico II,  
Department of Chemical  
Engineering, Materials and  
Industrial Production, Napoli,  
Italy

Deadline for manuscript  
submissions:

**closed (28 February 2021)**

### Message from the Guest Editors

Dear Colleagues,

Osseointegration is a natural phenomenon that occurs in the appropriate conditions. The surface chemical composition, texture and shape of items, play an essential role in the success of the medical procedure to which the patient should be subjected.

This Special Issue aims to publish some of the best research and reviews performed in the area of metallic biomaterials applications and will cover several topics like:

- Surface modifications for enhanced biological response
- Surface modification for infection control
- Biodegradable coatings and metallic biomaterials
- Bio-functionalization
- Cold plasma treatments
- Additive manufacturing of metallic biomaterial
- New alloys as biomaterials
- Porous metallic biomaterials
- Osseointegration
- Metal/tissue interfaces
- Computer-aided design of metallic implants and prosthesis
- Biomechanical design and characterization
- New trends in metallic biomaterials





an Open Access Journal by MDPI

## Editors-in-Chief

### **Prof. Dr. Hugo F. Lopez**

Department of Materials Science  
and Engineering, College of  
Engineering & Applied Science,  
University of Wisconsin-  
Milwaukee, 3200 N. Cramer  
Street, Milwaukee, WI 53211, USA

### **Prof. Dr. Yong Zhang**

Beijing Advanced Innovation  
Center of Materials Genome  
Engineering, State Key  
Laboratory for Advanced Metals  
and Materials, University of  
Science and Technology Beijing,  
30 Xueyuan Road, Beijing 100083,  
China

## Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

## 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)**, **Inspec**, **CAPLUS / SciFinder**, and **other databases**.

**Journal Rank:** JCR - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q1 (*Metals and Alloys*)

## Contact Us

Metals Editorial Office  
MDPI, St. Alban-Anlage 26  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/metals](http://mdpi.com/journal/metals)  
[metals@mdpi.com](mailto:metals@mdpi.com)  
[X@Metals\\_MDPI](https://twitter.com/X@Metals_MDPI)