

## Special Issue

# Magnesium and Its Alloys as Biodegradable Implants

### Message from the Guest Editors

Recently, magnesium has gained increasing interest for temporary biomedical applications, such as fixators and vascular stents, due to its high biomechanical compatibility with human bones. Specifically, its elastic modulus compatible with that of natural bone minimizes the risk of stress shielding and its corrosion process does not release toxic products. However, the accelerated corrosion of pure Mg hampers its usability in clinical applications because mechanical failure of the implant is prone to occur before the tissue has recovered and, during corrosion, hydrogen gas is produced at rates beyond the level that bone tissue is able to accommodate, ultimately causing severe host tissue damage. To solve this limitation, researchers have investigated different solutions, such as the addition of alloying elements, microstructure modifications and surface modifications. This Special Issue aims to present the latest innovative strategies to overcome the current limitations and their impacts on corrosion resistance (in vitro and/or in vivo), osseointegration properties, and mechanical properties, especially in the corrosive environment.

### Guest Editors

Dr. Mirco Peron

Department of Information Systems, Supply Chain Management & Decision Support, NEOMA Business School, 76130 Mont-Saint-Aignan, France

Dr. Bertolini Rachele

Department of Industrial Engineering, University of Padova, Padova, Italy

### Deadline for manuscript submissions

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## Materials

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*Materials*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[materials@mdpi.com](mailto:materials@mdpi.com)

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### Message from the Editor-in-Chief

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### Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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