Special Issue

Tribology and Orthopaedics

Message from the Guest Editor

Nowadays, aspects of tribology concerned with biological systems (biotribology) and tribological properties of implantable biomaterials are extremely important in orthopaedics research. Currently, joint replacements are expected to work for 10–15 years; however, with increasing life expectancy, patients living more active lives, and the greater demand for all types of joint replacements, it is necessary to improve their function to provide patients with a better quality of life. This Special Issue aims to emphasise the profound interaction between tribology and orthopaedics, promote cooperation between researchers from different scientific areas, and collect manuscripts on, but not limited to, the following themes:

- synovial and cartilaginous natural joints: contact mechanics and lubrication;
- artificial tissue replacements;
- prosthesis and implants;
- new biomaterials in orthopaedics;
- surface modification for orthopaedic implant-bearing surfaces;
- in-vitro and in-silico (bio)tribological and (bio)tribocorrosion models of artificial implants; and
- biomechanical modelling of the human body for determining artificial joint load conditions.

Guest Editor

Dr. Alessandro Ruggiero

Department of Industrial Engineering, University of Salerno, Via Giovanni Paolo II, 132, 84084 Fisciano, SA, Italy

Deadline for manuscript submissions

closed (28 February 2021)



an Open Access Journal by MDPI



mdpi.com/si/62241

Osteology Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 osteology@mdpi.com

mdpi.com/journal/ osteology





an Open Access Journal by MDPI



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Umile Giuseppe Longo

Department of Orthopaedic and Trauma Surgery, Università Campus Bio-Medico di Roma, Via Alvaro del Portillo, 00128 Rome, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 22.3 days after submission; acceptance to publication is undertaken in 5.6 days (median values for papers published in this journal in the first half of 2025).

Recognition of Reviewers

: APC discount vouchers, optional signed peer review, and reviewer names published annually in the journal.

