Special Issue

Advances in the Tribology of Artificial Hip and Knee Joints

Message from the Guest Editor

Artificial hip and knee joints have been successful in restoring joint function and mobility. However, wear of articular bearing surfaces and osteolysis continue to be major factors that limit implant longevity. Wear debris, generated in artificial hip and knees, are largely confined to the bone and joint interface. Phagocytosis of wear debris is size-dependent. Wear particle size, shape, and volume are influenced by joint type, bearing geometry, material combination, and lubricant-type. The released, unwanted metallic debris interact with periprosthetic surrounding tissues and may cause pain, hypersensitivity, inflammation, pseudotumour formation, implant loosening, and the need for revision surgery. Further research is warranted to improve the articular bearing surfaces of artificial hip and knee joints.

Guest Editor

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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.

Editor-in-Chief

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