Special Issue

Surface Modification to Improve Interactions with Soft Tissues and Regeneration Processes

Message from the Guest Editor

The surface of a biomaterial, and generally of devices in contact with or inserted in the human body, is of crucial importance in the mechanisms of integration and regeneration. Surface modification is generally accepted as a route to enhance cell behavior and functions, density or orientation. This Special Issue is dedicated to surface modification specifically designed for soft tissues, namely, nonmineralized tissues such as skin, cornea, adipose tissue, elastic tissues (blood vessels, cardiac tissue), tendons, ligaments, and muscles. Potential topics including but are not limited to:

- Coating approaches via physical interactions
- Coating techniques via chemical modification
- Micro- or nanopatterning for contact guidance (to direct cell migration, proliferation and functionality)
- Surface modification to trigger the molecular aspects of stem cells differentiation
- Surface strategies to improve cell growth and maintenance in 3D
- Strategies to achieve biomimetic and/or bioactive surfaces
- Approaches to prevent bacterial colonization and infection

Guest Editor

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About the Journal

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.
Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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