Special Issue

Restorative Dentistry: Emerging Trends in CAD-CAM Biomaterials

Message from the Guest Editors

Resin-based composites with dispersed fillers, polymer-infiltrated ceramic network materials (PICNs), glass ceramics, and oxide ceramics are gaining prominence in computer-aided design and computer-aided manufacturing (CAD-CAM) biomaterials for fabricating various dental restorations, including inlays, onlays, veneers, and crowns. While resin-based composites and PICNs offer improved machinability and increased resistance to edge chipping, ceramic materials possess high esthetic qualities, exceptional strength, or both.

Despite their benefits, challenges persist. To achieve strong bonding with CAD-CAM materials, these materials necessitate specialized surface pretreatments to enhance adhesion. There is an urgent need for in-depth research to better understand their adhesion properties and to develop methods for achieving durable bonding.

This Special Issue is dedicated to compiling and showcasing reviews and reports from clinical, in vitro, and in silico studies that stand out for their creativity, importance, and methodological rigor at an international level.

Guest Editors

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Deadline for manuscript submissions

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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

Prof. Dr. Pankaj Vadgama
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