Special Issue

Bioactive Dental Materials: A Paradigm Shift in Dentistry?

Message from the Guest Editor

Until recently, people believed that dental materials must be inert in order to be successful. Bioactive materials stimulate cells to produce bone tissues, secondary dentin or are active in the surface precipitation of calcium phosphates or hydroxyapatite. They can stimulate healing and cause the remineralization of hard tissues. Examples of bone regeneration can be found in orthopedics, implant dentistry and periodontics, such as ridge augmentation. Pulp capping materials with bioactivity have demonstrated that they promote bridge formation after vital pulp exposure, and in endodontics, applications have been reported in root resorption cases, the obturation of the root canal space and periapical healing. In restorative dentistry, a favorable soft tissue response, the remineralization of hard tissues and the occlusion of the marginal gap are some of the advantages that have been reported. Furthermore, a favorable postoperative reaction after the cementation of fixed prosthesis has been reported. This issue invites manuscripts that cover, but are not limited, to the above presented applications.

Guest Editor

Prof. Dr. Cornelis Hans Pameijer
Department of Reconstructive Sciences, School of Dental Medicine, University of Connecticut, Farmington, CT 06030, USA

Deadline for manuscript submissions

closed (20 April 2025)

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

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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