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Titolo	Tissue Engineering in Oral and Maxillofacial Surgery // edited by Riitta Seppänen-Kaijansinkko
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Disciplina	610.28
Soggetti	Regenerative medicine Tissue engineering Oral surgery Maxillofacial surgery Dentistry Regenerative Medicine/Tissue Engineering Oral and Maxillofacial Surgery Cirurgia maxil·lofacial Llibres electrònics
Lingua di pubblicazione	Inglese
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Nota di contenuto	Introduction to Tissue Engineering -- Biomaterials for cranio-maxillofacial bone engineering -- Cells -- Physical stimulation in tissue engineering -- Growth factors -- Tissue Engineering of Composite Soft Tissue Grafts for Craniomaxillofacial Reconstruction -- Hard tissue engineering -- Vascularization in Oral and Maxillofacial Tissue Engineering -- 3-D Computer Aided Design and Manufacturing -- Safety, Efficacy and Regulation of Mesenchymal Stromal/Stem Cells -- Future perspectives - with special emphasis on extracellular vesicles.
Sommario/riassunto	This book provides a thorough, up-to-date description of the scientific basis and concepts of tissue engineering in the oral and maxillofacial region. The opening chapters present an introduction to tissue engineering, describe the roles of biomaterials and stem cells, discuss the use of growth factors, and examine potential adverse reactions. The challenges of soft and hard tissue engineering for oral and maxillofacial

reconstruction are then considered in detail. It is explained what has been achieved to date, and potential future perspectives are explored. The importance and the verification of adequate vascularization are discussed, and a further focus is the use of 3D printing, both in the planning and production of scaffolds and in the bioprinting of cells and biomaterials. Information is also included on safety, efficacy, and regulatory aspects. Tissue Engineering in Oral and Maxillofacial Surgery will be of interest to all researchers and practitioners who wish to learn more about the potential of tissue engineering to revolutionize practice in oral and maxillofacial surgery. .
