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Soggetti	Biomaterials Regenerative medicine Tissue engineering Biomedical engineering Regenerative Medicine/Tissue Engineering Biomedical Engineering and Bioengineering Biomedical Engineering/Biotechnology
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Chapter 1: Introduction -- Chapter 2: Case Study: Hydroxyapatite-Titanium Bulk Composites for Bone Tissue Engineering Applications -- Chapter 3: Case Study: Hydroxyapatite Based Microporous and Macroporous Scaffolds -- Chapter 4: Case Study: Osseointegration of a Strontium Containing Glass Ceramic -- Chapter 5: Microstructure and Composition Dependent Physical and Cytocompatibility Property of Glass-Ceramics for Dental Restoration -- Chapter 6: Processing, Tensile and Fracture Properties of Injection Molded HDPE-Al2O3-HAp Hybrid Composites -- Chapter 7: Case Study: Development of Acetabular Socket Prototype -- Chapter 8: Case study: 3D printed cartilage -- Chapter 9: Clinical trials -- Chapter 10: Case study: Development of constructs for maxillofacial reconstruction -- Chapter 11: Assessment of Technology and Manufacturing Readiness Levels -- Chapter 12: A Way Forward.
Sommario/riassunto	This book discusses a number of case studies to showcase the translation of research concepts to lab-scale materials development for

biomedical applications. The book intends to motivate active researchers to develop new generation biomaterials. This book is meant for readers, who are already familiar with the broad area of biomaterials. The book introduces readers to the field of additive manufacturing of biomaterials and teaches them how to extend this innovative processing approach to a variety of biomaterials for musculoskeletal applications. It covers both in vitro and in vivo biocompatibility and toxicity assessment for a broad range of biomaterials in the context of bone tissue engineering. It works to sensitise researchers in the field of translational biomedical engineering on the importance of clinical trials and discusses the challenges ahead in this important field of research. This book will bee useful to clinicians, professionals and researchers alike.