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Nota di contenuto	Section I. Sustainable scaffold techniques and designs in tissue engineering -- Chapter 1. Recent Advancement of Sustainable Scaffolds in Regenerative Medicine -- Chapter 2. Green Manufacturing Techniques in Scaffold Fabrication -- Chapter 3. Additive Manufacturing as an Advanced Sustainable Technique for Scaffold Production -- Chapter 4. Smart Natural-based Membranes as Delivery Systems for Biomedical Applications -- Chapter 5. Photo-Reactive Crosslinking Using Visible Light: Versatile Hydrogel Fabrication for Emerging Fields -- Section II - Natural Materials and Eco-wastes used as Sacrificial Templates -- Chapter 6. Sustainable Materials Derived

from Lignin for Tissue Engineering & Regenerative Medicine -- Chapter 7. Revolutionizing Regenerative Medicine: Designing Cutting-Edge Polysaccharide Scaffolds for Tissue Engineering Applications -- Chapter 8. Weaving a Green and Healthy Future: Silk-Based Biomaterials for Sustainability -- Chapter 9. Marine biopolymers from fish and seafood processing by-products -- Section III - Biomedical Applications -- Chapter 10. Green Nanomaterials for Biomedical Applications -- Chapter 11. Nature-inspired Engineered Biomaterials to Guide Cell Function -- Chapter 12. Sustainable Ceramic-based Biomaterials for Bone Tissue Engineering -- Chapter 13. Sustainable Scaffold Therapies for Craniofacial Tissue Engineering -- Chapter 14. Sustainable Electrical Responsive Scaffolds -- Chapter 15. Biofabrication of Hierarchical Scaffolds for Tissue Engineering and In Vitro Models.

Sommario/riassunto

This book aims to provide a concise overview on the relevant research dealing with the design and fabrication methods of novel scaffolds, considering not only the technological challenges, but also the increasingly important sustainability issues. In this context, the vast options of sustainable biomaterials and eco-friendly/green methods for biomaterials synthesis and scaffold's processing techniques are discussed. Importantly, the recent developments in the field of scaffolds-based strategies for tissue engineering and regenerative medicine applications are also provided. In brief, the book is divided into three main sections comprising 15 chapters, as follows: I - Sustainable scaffold techniques and designs in tissue engineering; II - Natural materials and eco-wastes used as sacrificial templates; and III - Biomedical applications. It will also provide a concluding section about the Editor's opinion on the current achievements and future directions of the field. This book includes the contribution of leading and multidisciplinary experts, which will provide a in depth discussion on sustainable scaffolds for biomedical applications, thus serving as an up-to-date reference for a new generation of multidisciplinary students and researchers which aim to consider the sustainability dimension in their research activities.
