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Titolo	Biomimicked Biomaterials : Advances in Tissue Engineering and Regenerative Medicine // edited by Heung Jae Chun, Rui L. Reis, Antonella Motta, Gilson Khang
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Nota di contenuto	Part I. Novel Biomimicked Biomaterials for Regenerative Medicine -- Chapter 1. Bone Regeneration using Duck's Feet Derived Collagen Scaffold as an Alternative Collagen Source -- Chapter 2. Decellularized Extracellular Matrices for Tissue Engineering and Regeneration -- Part II. Novel Biomimicked Hydrogel for Regenerative Medicine -- Chapter 3. Injectable in situ-forming Hydrogels for Protein and Peptide Delivery -- Chapter 4. Alginate Hydrogels as 3D Cell Encapsulation Matrices for Tissue Engineering and Regenerative Medicine -- Chapter 5. Design of

Advanced Polymeric Hydrogels for Tissue Regenerative Medicine: Oxygen-controllable Hydrogel Materials -- Chapter 6. Enhancing Osteochondral Tissue Regeneration of Gellan Gum by Incorporating Gallus Gallus var Domesticus Derived Demineralized Bone Particle -- Part III. Control of Stem Cell Fate by Biomaterials for Regenerative Medicine -- Chapter 7. The Development of Extracellular Vesicles-Integrated Biomaterials for Bone Regeneration -- Chapter 8. In vivo Evaluation of the Biocompatibility of Biomaterial Device -- Chapter 9. Cell Response to Materials for Biomedical Engineering -- Chapter 10. Regulation of Stem Cell Functions by Micro-patterned Structures -- Part IV. Nano-Intelligent Biocomposites for Regenerative Medicine -- Chapter 11. Natural Polyphenols as Modulators of the Fibrillization of Islet Amyloid Polypeptide -- Chapter 12. Recent Advances of Biphasic Calcium Phosphate Bioceramics for Bone Tissue Regeneration -- Chapter 13. Surface-modifying Polymers for Blood-Contacting Polymeric Biomaterials.

Sommario/riassunto

This book is the second of two volumes that together offer a comprehensive account of cutting-edge advances in the development of biomaterials for use within tissue engineering and regenerative medicine. In this volume, which is devoted to biomimetic biomaterials, the opening section discusses bone regeneration by means of duck's feet-derived collagen scaffold and the use of decellularized extracellular matrices. The role of various novel biomimetic hydrogels in regenerative medicine is then considered in detail. The third section focuses on the control of stem cell fate by biomimetic biomaterials, covering exosome-integrated biomaterials for bone regeneration, cellular responses to materials for biomedical engineering, and the regulation of stem cell functions by micropatterned structures. Finally, the use of nano-intelligent biocomposites in regenerative medicine is addressed, with discussion of, for example, recent advances in biphasic calcium phosphate bioceramics and blood-contacting polymeric biomaterials. The authors are recognized experts in the interdisciplinary field of regenerative medicine and the book will be of value for all with an interest in regenerative medicine based on biomaterials.
