Record Nr. UNINA9910253928503321 Tissue Repair: Reinforced Scaffolds / / edited by Xiaoming Li Titolo Singapore:,: Springer Singapore:,: Imprint: Springer,, 2017 Pubbl/distr/stampa **ISBN** 981-10-3554-7 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (VII, 304 p. 107 illus., 62 illus. in color.) 610 Disciplina Soggetti Medicine Regenerative medicine Tissue engineering Biomaterials Biomedicine, general Regenerative Medicine/Tissue Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references at the end of each chapters. Nota di bibliografia Chapter 1. Overview of scaffolds reinforcement for tissue repair Nota di contenuto (Xiaoming Li) -- Part I: FABRICATION AND MATERIAL PROPERTIES --Chapter 2. The potential matrix and reinforcement material (Xiaoming Li) -- Chapter 3. The mechanical properties of the scaffolds (Nicholas Dunne) -- Chapter 4. The biodegradability of the scaffolds reinforced by fibers (Katerina E. Aifantis) -- Chapter 5. The biocompatibility of the scaffolds reinforced by fibers (Yanfeng Luo) -- Part II: TISSUE REPAIR APPLICATIONS -- Chapter 6. The potential tissues and their properties (Xiangdong Kong) -- Chapter 7. Scaffolds reinforced by fibers (Xiaoming Li) -- Chapter 8. Scaffolds reinforced by fibers or tubes (Bao-Qing Pei). Sommario/riassunto This book summarizes the effective reinforcement of scaffolds by means of different kinds of fibers and tubes to meet different needs in the context of tissue repair. It covers the fabrication of the reinforced scaffolds, the factors influencing their properties, and their applications for hard and soft tissue repair. Further, it presents a range of concrete examples, case studies and research frontiers, providing readers a better understanding of how the respective fibers or tubes influence the mechanical properties, biodegradability, biocompatibility and

bioactivity of scaffolds, and how they fulfill specific medical requirements. As such, the book provides a valuable and informative resource for researchers, technicians and students in the fields of biomaterials, tissue engineering and regenerative medicine.