1. Record Nr. UNINA9910807131703321

Titolo Tissue engineering for the hand : research advances and clinical

applications / / edited by James Chang, Gaurav Gupta

Pubbl/distr/stampa Singapore;; London,: World Scientific, 2010

ISBN 1-283-14472-7

9786613144720 981-4313-56-4

Edizione [1st ed.]

Descrizione fisica 1 online resource (284 p.)

Altri autori (Persone) ChangJames

GuptaGaurav

Disciplina 617.575059

Soggetti Hand - Surgery

Tissue engineering

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Description based upon print version of record.

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Acknowledgments; Contents; Contributors; Chapter 1 Tissue

Engineering: A Historical Perspective James D. Kretlow and Antonios G. Mikos; Chapter 2 Current Clinical Needs in Hand Surgery L. Scott Levin; Chapter 3 Principles of Tissue Engineering for Reconstruction of the Hand Ryosuke Kakinoki; Chapter 4 Primary Cell Lines and Stem Cells Katie L. Pricola and Hermann Peter Lorenz; Chapter 5 Scaffolds Wei Liu and Yilin Cao; Chapter 6 Animal Models for Engineering Tissues in the

Upper Extremity Xing Zhao and Mark A. Randolph

Chapter 7 Guidance Strategies in Hand Tissue Engineering:

Manipulating the Microenvironment Through Cellular and Material Cues Harvey Chim and Arun K. Gosain Chapter 8 Bioreactors Laurence A. Galea and Wayne A. Morrison; Chapter 9 Nerve Engineering Gregory H. Borschel; Chapter 10 Tendon Engineering Johan Thorfinn, Ioannis Angelidis, Brian Pridgen and James Chang; Chapter 11 Skin Deepak M. Gupta, Nicholas J. Panetta, Geoffrey C. Gurtner and Michael T. Longaker; Chapter 12 Bone and Cartilage Ashley Rothenberg and Jennifer Elisseeff; Chapter 13 Blood Vessels Masayuki Yamato and

Teruo Okano

Chapter 14 Bench to Bedside: Navigating Industry, the FDA and Venture

Sommario/riassunto

Capital Nicholas J. Panetta, Deepak M. Gupta, Michael T. Longaker and Geoffrey C. GurtnerIndex

Musculoskeletal applications of tissue engineering will be among the first to achieve widespread clinical use, and the resulting shift in clinical and surgical paradigms will highlight the need for an authoritative text on tissue engineering for musculoskeletal tissues including nerve, bone, tendon, skin, vessels, and cartilage. This book will serve the needs of a large readership including plastic surgeons, orthopedic surgeons, medical residents and medical students, researchers and academic faculty in regenerative medicine and biomedical engineering, and medical device experts. This textbook