

Contents

Multiscale Fibrous Scaffolds in Regenerative Medicine	1
Sowmya Srinivasan, R. Jayakumar, K.P. Chennazhi, Erica J. Levorson, Antonios G. Mikos, and Shantikumar V. Nair	
Stem Cells and Nanostructures for Advanced Tissue Regeneration	21
Molamma P. Prabhakaran, J. Venugopal, Laleh Ghasemi-Mobarakeh, Dan Kai, Guorui Jin, and Seeram Ramakrishna	
Creating Electrospun Nanofiber-Based Biomimetic Scaffolds for Bone Regeneration	63
Eleni Katsanevakis, Xuejun Wen, and Ning Zhang	
Synthetic/Biopolymer Nanofibrous Composites as Dynamic Tissue Engineering Scaffolds	101
J.A. Kluge and R.L. Mauck	
Electrospun Fibers as Substrates for Peripheral Nerve Regeneration ...	131
Jörg Mey, Gary Brook, Dorothée Hodde, and Andreas Kriebel	
Highly Aligned Polymer Nanofiber Structures: Fabrication and Applications in Tissue Engineering	171
Vince Beachley, Eleni Katsanevakis, Ning Zhang, and Xuejun Wen	
Electrospinning of Biocompatible Polymers and Their Potentials in Biomedical Applications	213
Pitt Supaphol, Orawan Suwantong, Pakakrong Sangsanoh, Sowmya Srinivasan, Rangasamy Jayakumar, and Shantikumar V. Nair	

Electrospun Nanofibrous Scaffolds-Current Status and Prospects in Drug Delivery	241
M. Prabaharan, R. Jayakumar, and S.V. Nair	
Biomedical Applications of Polymer/Silver Composite Nanofibers	263
R. Jayakumar, M. Prabaharan, K.T. Shalumon, K.P. Chennazhi, and S.V. Nair	
Index	283