

Table of Contents

Preface

Biomaterials in Different Forms for Tissue Engineering: An Overview E. Pişkin	1
Design of Macroporous Biodegradable Polymer Scaffolds for Cell Transplantation V. Maquet and R. Jerome	15
Synthetic Extracellular Matrices for Cell Transplantation M.C. Peters and D.J. Mooney	43
Porous Hydrogels for Neural Tissue Engineering S. Woerly	53
Substrates for Growth Cone Guidance in Brain: Guidance Cues for Neural Connections K. Torimitsu	69
Protein Interaction with Gelatin Hydrogels for Tissue Engineering M. Muniruzzaman, A. Tabata and Y. Ikada	89
Multilayer Aggregate Culture of Rat Hepatocytes on a Porous Material: Three Dimensional Cellular Organization and Maintenance of Hepatic Functions T. Tokiwa and M. Kodama	97
Artificial Esophagus M. Sato, N. Ando, S. Ozawa, H. Miki, K. Hayashi and M. Kitajima	105
Biodegradable PLA-PGA Polymers for Tissue Engineering in Orthopaedics C.M. Agrawal, K.A. Athanasiou and J.D. Heckman	115
Tissue Engineered Cartilage S.K. Ashiku, M.A. Randolph and C.A. Vacanti	129
Porous Materials for Bone Engineering S.J. Simske, R.A. Ayers and T.A. Bateman	151
Influence of Porous Microarchitecture on the In-Vitro Dissolution and Biological Behaviour of Porous Calcium Phosphate Ceramics D.M. Liu	183
Coral Derived Porous Framework Having Different Chemical Compositions as a Scaffold for Osteoblastic Differentiation H. Ohgushi	209
Implantable Porous Bioceramics A. Ravaglioli and A. Krajewski	221
Hydroxyapatite Coated Stainless-Steel External Fixation Pins A. Moroni, L. Orienti, S. Stea, M. Visentin and S. Giannini	231