

Contents

Preface	v
Physiological roles of connective tissue growth factor (CTGF/Hcs24): promotion of endochondral ossification, angiogenesis and tissue remodeling	
<i>M. Takigawa</i>	1
Bone tissue engineering on biodegradable scaffolds	
<i>J.E. Davies and D. Baksh</i>	15
Synthesis design of functionally graded fluoridated apatite and CO ₃ apatite	
<i>M. Okazaki</i>	25
Mechanisms of platelet thrombus formation	
<i>Z.M. Ruggeri</i>	35
Tissue interactions and genetic regulations in gut differentiation	
<i>S. Yasugi and K. Fukuda</i>	45
Establishment of cardiomyogenic cell line from marrow stroma	
<i>K. Fukuda, S. Makino, F. Konishi, D. Hakuno and S. Ogawa</i>	55
Tissue engineering strategies for mesenchymal or skeletal tissues	
<i>A.I. Caplan</i>	67
Regulatory mechanism of osteoblast differentiation	
<i>A. Yamaguchi</i>	75
Bone regeneration by bone morphogenetic protein	
<i>I. Asahina, M. Oda, M. Mori, M. Higashinakagawa, I. Seto, A. Imuranul, E. Marukawa and S. Enomoto</i>	83
Brain barrier function: its analysis and reconstitution	
<i>T. Terasaki, S. Ohtsuki, H. Takanaga, K. Tetsuka, K. Nagase, K. Wakayama, I. Osawa, N. Yanai, M. Obinata, A. Kikuchi, T. Okano and K.-I. Hosoya</i>	95
Cell sheet engineering	
<i>M. Yamato, A. Kushida, O.H. Kwon, M. Hirose, A. Kikuchi and T. Okano</i>	105
Selection of primary hemopoietic cells using chemical inducers of dimerization	
<i>C.A. Blau</i>	113
Mechanical stress and actin filament dynamics in cultured endothelial cell	
<i>M. Sato, N. Kataoka, K. Hashimoto and M. Imamura</i>	121
Generation of molecular probes for hematopoietic cell purification	
<i>S. Takahashi, N. Minegishi, K. Igarashi and M. Yamamoto</i>	131

What do we learn from regeneration in lower animals? <i>S. Tochinai</i>	141
Artificial nerve connection: an interface for controlling prosthesis and organ functions <i>H.A. Richter, U. Schnakenberg and C. Ziegmann</i>	153
Neural repair of spinal cord injury <i>S. Kawaguchi</i>	161
Efficacy of hepatocyte-based bioartificial liver on hepatic failure in pigs and several attempts towards clinical application <i>H. Fujioka, Y. Kamohara, Y. Kawashita, S. Eguchi, Y. Kawazoe, N. Sugiyama, A. Tamura, H. Moriuchi, J. Furui, A. Ohtsuru, S. Yamashita, Y. Kaneda and T. Kanematsu</i>	167
Xenogeneic extracorporeal liver perfusion as a liver assist device <i>I. Ikai, H. Okabe, N. Katsura, R. Nishitai, O. Takeyama, T. Uesugi, A. Kanazawa, S. Satoh, H. Terajima and Y. Yamaoka</i>	177
Index of authors	189
Keyword index	191