

Contents

<i>Preface</i>		vii
<i>About the Editor</i>		ix
Chapter 1	Controlled Drug Release Systems: Mechanisms and Kinetics <i>M. Sanopoulou and K. G. Papadokostaki</i>	1
Chapter 2	Membranes for Artificial Kidneys <i>J. Vienen</i>	35
Chapter 3	Advanced Blood Purification Therapies <i>O. ter Beek, I. Geremia, D. Pavlenko and D. Stamatialis</i>	59
Chapter 4	Membranes for Artificial Lung and Gas Exchange Applications <i>F. Wiese</i>	83
Chapter 5	Membranes for Bioartificial Kidney Devices <i>N. Chevtchik, P. Caetano Pinto, R. Masereeuw and D. Stamatialis</i>	105
Chapter 6	Membrane-Based Bioartificial Liver Devices <i>S. Khakpour, H. M. M. Ahmed and L. De Bartolo</i>	149

xii Contents

Chapter 7	Are Co-Culture Approaches Able to Improve Biological Functions of Bioartificial Livers? <i>V. Pandolfi, U. Pereira, M. Dufresne and C. Legallais</i>	179
Chapter 8	Membranes for Bioartificial Pancreas: Macroencapsulation Strategies <i>K. Skrzypek, M. G. Nibbelink, M. Karperien, A. van Apeldoorn and D. Stamatialis</i>	211
Chapter 9	Early Health Economic Evaluation of Bioartificial Organs: Involving Users in the Design of the Bioartificial Pancreas for Diabetes <i>M. J. IJzerman, T. Wissing and E. de Koning</i>	245
Chapter 10	Membranes for Regenerative Medicine in Clinical Applications <i>G. F. D'Urso Labate and G. Catapano</i>	263
Chapter 11	Membranes for Organs-On-Chips <i>M. P. Tibbe, A. D. van der Meer, A. van den Berg, D. Stamatialis and L. I. Segerink</i>	295
	<i>Index</i>	323