

CONTENTS

List of Contributors	vii
Preface	xxi
Section I: Regulatory and Donation Systems	1
Chapter 1 Observations on the Evolving Regulatory Programme of Tissue Banking by the and Food and Drug Administration in the USA	3
Chapter 2 Human Tissues, Medical Devices and Medicinal Products: Current Situation in the European Community	31
Chapter 3 Legal Situation of Tissue Transplantation in Japan	45
Chapter 4 Tissue Donation in a Referred Hospital and in an "Outside Hospital": <i>The Pamplona Model</i>	57
Section II: Musculoskeletal	87
Chapter 5 Alloplasty in Conjunction with Metalloosteosynthesis for Bone Defects Replacement in Paediatrics of Tumour-Like Pathologies of the Skeleton	89
Chapter 6 Clinical Strategy for Application of Deep Frozen-Radiation Sterilised Bone Allografts	101
Chapter 7 From Bone Allografts to Synthetic Bone Grafts: Bone Morphogenetic Proteins and Osteoinduction	117

Chapter 8	The Influence of Sterilisation on the Osteoinductive Properties of Bone in Rat Bone Marrow Cell Culture	129
Chapter 9	Bone Grafting for Acetabular Deficiencies in Total Hip Arthroplasty	147
Chapter 10	<i>In Vitro</i> Engineered Cartilage	161
Chapter 11	Preserved Allogenic Rib Cartilage in Reconstructive Surgery	177
Chapter 12	Preserved Bone Allografts in Reconstructive Orthopaedics	189
Section III: Cell Processing and Preservation		199
Chapter 13	Isolation and Cryopreservation of Haematopoietic Progenitor Cells of Peripheral Blood and Cord Blood	201
Chapter 14	Preclinical Characterization of Freshly Isolated and Cryopreserved Human Hepatocytes	233
Chapter 15	Purification and Characterization of Haematopoietic Stem Cells	251
Chapter 16	Pancreatic Islet Cell Processing for Transplantation	267
Chapter 17	Type I Collagen and a Recombinant TGF- β 1 Serve as a Scaffold for Bone Marrow Mesenchymal Stem Cells	283
Section IV: Vascular Grafts		313
Chapter 18	Experimental Studies of Arterial Homografts	315
Chapter 19	Possible Factors That Influence the Structure of Vascular Segment: Cryopreservation and Thawing. Importance of the Quality of the Control Used	341

Chapter 20	Ischaemic Heart Disease: Searching for Therapeutical Solutions	359
Chapter 21	Procurement, Processing and Clinical Aspects of Cryopreserved Vascular Homografts	375
Chapter 22	Factors That Influence the Viability and the Histologic Structure of the Cryopreserved Pig Cardiac Valves: Cryopreservation and Thawing	387
Chapter 23	The Cryopreserved Thoracic Aorta as a Vascular Graft	409
Section V: Collagen and Skin		425
Chapter 24	Critical Review of Skin Substitution and Banking in the Third Millennium	427
Chapter 25	Collagen Biochemistry: An Overview	445
Section VI: Factors Influencing Gland Transplantation		501
Chapter 26	Autotransplantation of Combined Adrenal Glands in Rats	503
Chapter 27	Activity of Pituitary-Thyroid Axis in Depends on Severity of Hypocorticoidism in Rats	515
Index		529