

PREFACE

The pace of tissue banking and transplantation continues to accelerate and this volume of Advances in Tissue Banking series again reflects the growth of this inter-disciplinary subject. Our objective is to provide a review of these developments within the covers of one volume, without the need to plough through countless specialised journals for an overview of the particular subject. Of necessity, there has been the need to be selective in order to emphasise the most rapidly changing areas.

Regulatory control of tissue graft production and quality cannot any longer be ignored. The Food and Drug Administration (FDA) in the USA is now moving to replace the self-regulation peer review system which has hitherto operated. The controls being introduced will inevitably lead to closure of many of the smaller unregulated tissue banks. Europe is trying to come to grips with cross-national regulation and Japan is entering the field for the first time. Detailed comparisons are given here and the Spanish tissue donation model described outlines the need for detailed planning to include all sectors of the health system.

Musculoskeletal tissue graft applications continue to underpin the bread and butter operations of all multi-tissue banks. However, this volume describes the extensive and long experience in this area in Russia, Poland, Estonia and Japan, not previously documented in Western literature. Whereas old and trusted methods continue, albeit with important technical innovation, the scientific introduction of bone morphogenetic proteins (BMPs), support more effective osteoinductive bone healing and combined with tissue engineering in cartilage and other tissues offer a new dimension to bone reconstruction. This section will interest all orthopaedic surgeons because of the mastery of the contributions.

Cell processing and preservation have not previously been included in these volumes, but since this area is being grafted on to the tissue bankers' portfolio, we now describe new developments in this field also. Stem cells and islet cell processing and preservation now offer the armoury of the cell biologist to the transplantologist. This section illustrates that the tissue banker must become a scientist as well as a technologist.

The vascular area has to some extent become a stand-alone situation, and the term "homograft" is still sentimentally retained, as if to emphasise the distinctiveness of this field. The principles of processing and preservation for other viable and/or preserved grafts are now extended to this areas also, as clearly demonstrated by this section.

The 27 contributions by leading specialists in their subject make for rich cocktail. For the diversity and imagination introduced into this volume, I must thank my two Guest Editors: Dr. Jacinto Sánchez-Ibáñez and Professor Anna Dziedzic-Gocłowska. May I thank them for the uncomplaining way they have put up with my badgering. I hope that they will now feel that the end justifies the means!

Finally, may I thank those who have reported so positively on the previous volume, for their suggestions and constructive comments. Please continue to contact us with your ideas for contributions, either by yourself, your colleagues or even to appraise us of a subject you consider should be covered. Finally, may I thank my colleagues at World Scientific, particularly Yunisa, for their careful work in guiding this volume through the press.

Glyn O. Phillips
Editor-in-Chief