

Editorial

This special issue of *Journal of Materials Science: Materials in Medicine* includes a selection of papers presented at the International Conference on Advances of Biomaterials for Reconstructive Medicine, held in Capri, June 9–14, 2002. This conference is a part of a series of meetings on biomaterials research organized by the Institute of Composite and Biomedical Materials of the National Research Council and the Interdisciplinary Research Centre in Biomaterials of the University of Naples ‘‘Frederico II’’. The meetings are held every four years and their main features is to provide a venue for for an update on the latest scientific and technological achievements in biomaterials research and to set the future challenge of the field. The major focus and thrust of this meeting are defined by its title: ‘‘Advances in Biomaterials for Reconstructive Medicine’’.

Over the past decade tissue engineering, the new disciplines that combines biomaterials and cell biology, has grown significantly to warrant a dedicated meeting to outline the current research lines and highlight the clinical success and the future challenge. Thus, this meeting was organized with this general theme with a particular emphasis on the role of materials scaffolds design on the successful implementation of tissue engineering approach.

Tissue engineering incorporates the traditional sciences (chemistry, biology, and physics) with more modern engineering sciences (chemical, material, nano-technology). In addition, interdisciplinary and multidisciplinary efforts to integrate advances in cell and molecular biology with the recent advances in biomaterials and tissue engineering have been forthcoming. To cover the fundamental aspects of current developments and future directions of biomaterials and tissue engineering, the following sessions were organized: Biocompatibility and Cellular Interactions, Materials (Polymers, Ceramics, Hydrogel, Composite), Tissue Engineering, Control Release Systems, Gene Therapy, Implants and Medical Devices, and Standards and Regulation Issues.

The scientific program included 20 main lectures, 36 oral contributions, 40 poster presentations, and a total of 145 participants representing 16 different countries and contributed to the success of the conference. The papers provide evidence of the increasing importance of cell biology, biocompatibility and cellular interactions with materials, properties of hydrogel and drug release, and the application of polymers for tissue engineering.

I hope that the readers will appreciate the scientific relevance of the papers and their contribution to the process and development of the emerging field of biomaterials and tissue reconstruction.

I would like to thank my co-chairmen of the conference, J.M. Anderson, W. Bonfield, S.J. Huang and P.A. Netti, for their constant assistance in organizing the conference and this special issue. Many thanks also to the speakers, session chairmen, and participants. Gratitude goes to the sponsors and the local committee led by Dr M. Montanino for the excellent contributions on the organization of the conference.

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