

# Tissue Engineering

# Computational Methods in Applied Sciences

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Editors

# Tissue Engineering

Computer Modeling, Biofabrication and  
Cell Behavior

 Springer

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# Preface

This book is a contribution for Tissue Engineering seen as multidisciplinary field involving scientists from different backgrounds like medicine, chemistry, material science, engineering and biology with a focus on the development of mathematical methods that are quite relevant to understand cell biology and human tissues as well to model, design and fabricate optimized and smart scaffolds.

The scientific interest of the computational mechanics community in Tissue Engineering, lead us to start a series of ECCOMAS Thematic Conferences on this field. It has been very successful event bringing together a considerable number of researchers from all over the world, representing several fields of study related to Tissue Engineering. As a consequence of these conferences a first book “Advances on Modelling in Tissue Engineering” was released in 2011. The present book, “Tissue Engineering: Computer Modeling, Biofabrication and Cell Behavior”, consists of eight selected contributions of participants on the Second International Conference on Tissue Engineering, held in Lisbon in July 2011, covering these different aspects of Tissue Engineering.

The Editors are deeply grateful to the all the contributing authors. We would also like to thank the European Community on Computational Methods in Applied Sciences (ECCOMAS), the Portuguese Association of Theoretical Applied and Computational Mechanics (APMTAC), the Portuguese Foundation for Science and Technology (FCT), the Institute of Mechanical Engineering (IDMEC/IST) and the Centre for Rapid and Sustainable Product Development of the Polytechnic Institute of Leiria (CDRsp), for supporting the Conference.

Paulo Rui Fernandes  
Paulo Jorge Bártolo

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