

# 24th European Conference on Biomaterials

The Annual Conference of the European Society for Biomaterials

**Dublin**, Ireland

4th-8th September 2011

The Cycle of Biomaterials – Back to Our Roots (her Groughs Care

### RAPID-FIRE PRESENTATIONS II MONDAY, 5<sup>TH</sup> SEPTEMBER, 15.30 – 17.30

Chairs: N. Dunne, D. Kelly

#### 244 - Response of Endothelial Cells to Poly (L-lactide-co-ε-caprolactone) (PLCL) Membranes

J. Raj, A. English, R. A. D'Sa, P. J. Dickinson, D. Zeugolis, <u>A. Brown</u>, B. J. Meenan

Nanotechnology and Integrated Bioengineering Centre (NIBEC), University of Ulster, UK

#### 245 - Poly(ethylenglycol) mimics adhesive capability of the ECM treatment on Polylactide-based scaffolds

<u>G. Lo Re</u>, R. Scaffaro, S. Rigogliuso, G. Ghersi

Dipartimento di Biologia Cellulare e dello Sviluppo, University of Palermo, Italy

# 246 - Nano-textured Biomaterials and Cell Interaction at the Nano-bio-interface

<u>A. English</u>, N. Rooney, A. Pandit, D. Zeugolis

Network of Excellence for Functional Biomaterials, National University of Ireland, Galway

#### 247 - Modulation of the In Vitro Microenvironment of Corneal Keratocytes Using Macromolecular Crowding

P. Kumar, A. Satyam, T. Ritter, M. Raghunath, A. Pandit, D. Zeugolis
Network of Excellence for Functional

Biomaterials, National Centre for Biomedical Engineering Science, National University of Ireland, Galway

#### 248 - The Formation of Filamentous Phage Scaffolds by Chemical Modification for Tissue Engineering

Y. Jun Kim, A. Arora, C. Hoon Nam Laboratory of Nanomedicine, Korea Institute of Science and Technology Europe, Saarbruecken, Germany

#### 249 - Expansion of Cord-blood Derived Hematopoietic Stem Cells on Different Polymers

M. V. Ferreira, N. Labude, G. Walenda, W. Wagner, M. Bovi, T. Hieronymus, M. Zenke, S. Neuss

Institute of Pathology, RWTH Aachen University, Germany, Helmholtz Institute for Biomedical Engineering, Biointerface Group, RWTH Aachen University, Aachen, Germany

#### 250 - Lactate-pyruvate and Growth Proliferation Levels of Endothelial Cells on Extracellular Matrix Materials

A. Callanan, E. Guihen, C. Crean, W. T. O'Connor, T. McGloughlin

Centre for Applied Biomedical Engineering Research, Department of Mechanical and Aeronautical Engineering, Material and Surface Science Institute, University of Limerick, Ireland

# 251 - Chondrogenic Differentiation of hBMSCs in "2-D" and "3-D" Cultures to Compare the Type and Quality of Matrix Formed Using TGF- $\beta1$ and TGF- $\beta3$

N. Gurav, L. Di Silvio

Biomaterials, Biomimetics & Biophotonics Group, Dental Institute, at Guy's, King's College and St Thomas' Hospitals, King's College London, UK

## 252 - C2C12 Muscle Cell Patterning for Biorobotics Applications

<u>G. G. Genchi</u>, L. Ricotti, G. Ciofani, V. Mattoli, A. Menciassi

The BioRobotics Institute, Scuola Superiore Sant'Anna, Italy

Center for Micro-BioRobotics, Italian Institute of Technology, Italy

## 253 - Adipose-derived Stem Cells (ASCs) for Peripheral Nerve Repair

R. Kaewkhaw, A. M Scutt, <u>J. W.</u> Haycock

Departments of Materials Science & Engineering (Kroto Research Institute) & Medicine, University of Sheffield, UK

#### 254 - Influence of Specifically Designed Cellular Microenvironments and Pulsed Electrical Fields on Proliferation and Differentiation of Human Mesenchymal Stem Cells

R. Hess, A. Seifert, V. Hintze, H. Neubert, B. Rentsch, S. Moeller, M. Schnabelrauch, D. Scharnweber

Institute of Materials Science / Max Bergmann Center of Biomaterials, TU Dresden, Germany

255 - Engineering 3D
Microenvironments for the
Generation of Bioartificial Tissues

A. Ovsianikov, F. Nehl, S. Baudis, Z. Li, D. Bernhard, R. Liska and J. Stampfl lnstitute of Materials Science and

Institute of Materials Science and Technology, Technical University of Vienna, Austria

256 - Analysis of Cell Adhesion on PVA-H for Developing Vessel Bio-Model with Dynamical and Biological Responses

N. Tomita, M. Ohta Institute of Fluid Science, Tohoku University, Japan

#### 257 - Biomechanical Properties of Alginate Hydrogels in a Biomimetic Bioreactor for Cartilage Tissue Engineering

J. Stojkovska, J. Zvicer, D. Kostic, <u>B.</u> <u>Obradovic</u>

Faculty of Technology and Metallurgy, University of Belgrade, Serbia

#### 258 - Bioartificial Matrices for Myocardial Regeneration

E. Rosellini, C. Cristallini, C. Ciobanu, N. Barbani

Department of Chemical Engineering, University of Pisa, Italy