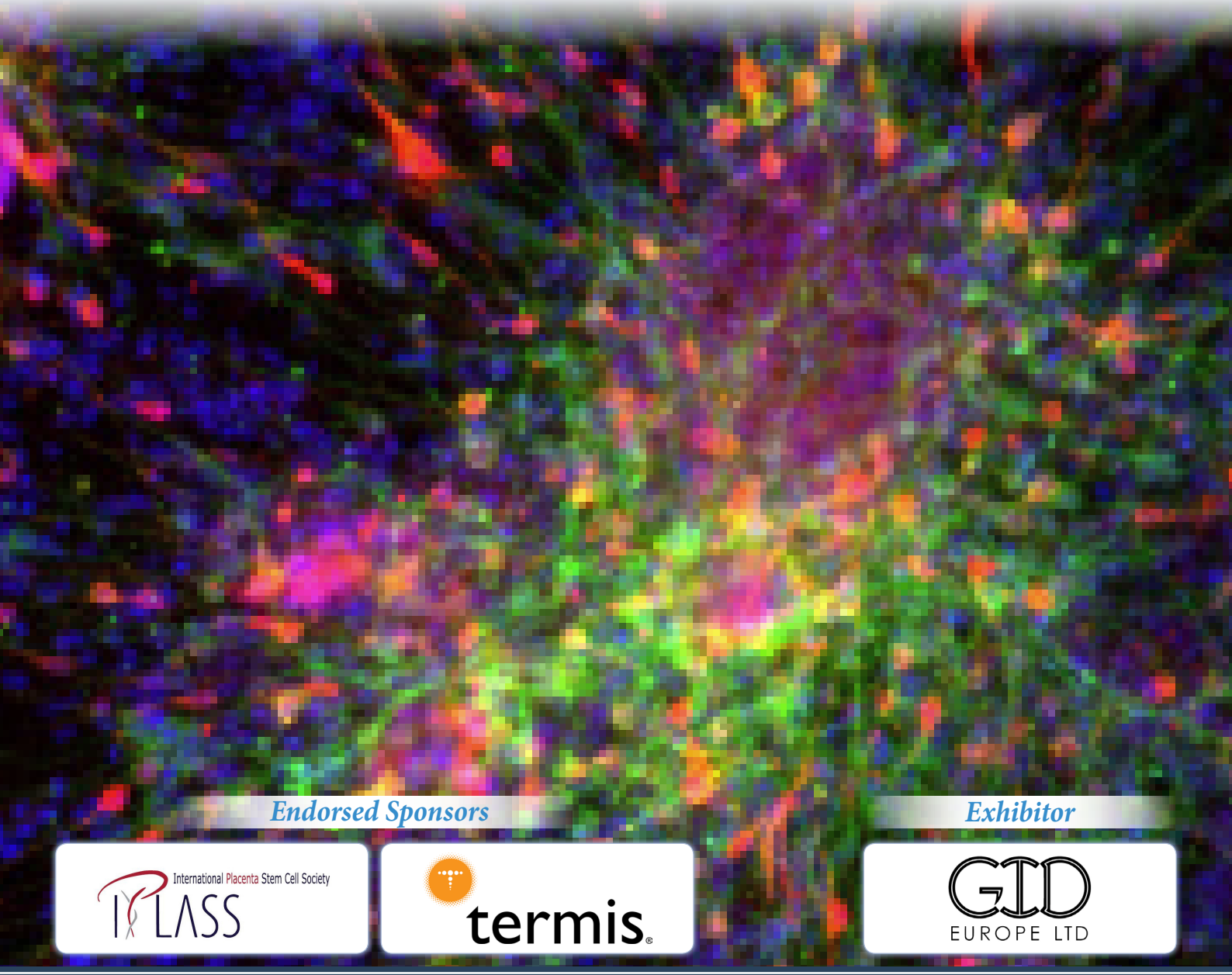
Scientific Program

OMICS Group Conferences
Accelerating Scientific Discovery

3rd International Conference on
Tissue Science & Regenerative Medicine

September 24-26, 2014 Valencia, Spain



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Day 1 September 24, 2014

08:00-08:30 Registrations

Committee Room 3-4

OMICS Group Conferences
Accelerating Scientific Discovery

08:30-09:00 **Opening Ceremony**

Keynote Forum

09:00-09:05 **Introduction**

09:05-09:30 **Denis Barritault**
University Paris-Est Creteil, France

09:30-09:55 **Ornella Parolini**
Fondazione Poliambulanza, Italy

09:55-10:20 **Hala Zreiqat**
University of Sydney, Australia

Coffee Break 10:20-10:35 @ Auditorium 3 Foyer

Group Photo

Track 1: Tissue Regeneration
Track 3: Whole Organ Engineering & Approaches

Session Introduction

Session Chair: Ornella Parolini, Fondazione Poliambulanza, Italy
Session Co-Chairs: Soenke Percy Frey, University of Wurzburg, Germany; **Dennis M Lox,** Florida Spine Center, USA

10:35-10:55 **Involvement of the caspase enzymes in satellite cells apoptosis**
Roberta Di Pietro, G. d'Annunzio University of Chieti-Pescara, Italy

10:55-11:15 **Crosslinkers for heart valve tissue engineering**
Somers Pamela, Ghent University, Belgium

11:15-11:35 **Is there a potential need for proangiogenic therapy in posttraumatic musculoskeletal trauma regeneration to improve bony healing?**
Soenke Percy Frey, University of Wurzburg, Germany

11:35-11:55 **New chitosan-based scaffolds for peripheral nerve regeneration- Pre clinical studies**
Kirsten Haastert-Talini, Hannover Medical School, Germany

11:55-12:15 **Application of bioactive hydrogels to the regeneration of tissues: A feasible approach to connective tissue**
Julio San Roman, Institute of Polymer Science & Technology, Spain

12:15-12:35 **Is there a potential need for proangiogenic therapy in post traumatic musculoskeletal trauma regeneration to improve muscular healing?**
Soenke Percy Frey, University of Wurzburg, Germany

12:35-12:55 **The use of autologous stem cells in the treatment of a soccer player with ankle AVN**
Dennis M Lox, Florida Spine Center, USA

Lunch Break 12:55-13:40 @ Multi Purpose Hall 2

Track 2: Materials & Designs for Tissue Engineering
Track 6: Scaffolds

Session Introduction

Session Chair: Jan Oxholm Gordeladze, University of Oslo, Norway
Session Co-Chair: Neslihan Alemdar, Marmara University, Turkey

13:40-14:00 **Epigentic factors involved in the "mineralizing/demineralizing" capability of cell phenotypes: Histone deacetylases (HDACS), transcription factors (TFs), microRNAs, and vitamin K2 (MK-7)**
Jan Oxholm Gordeladze, University of Oslo, Norway

14:00-14:20 **Use of mesenchymal stem cells and scaffolds for improving tendon and skin regeneration**
Marco Patruno, University of Padova, Italy

14:20-14:40 **Healing parenchyma with mesenchyma: A new therapeutic paradigm**
Ramon Llull, Stem Center, Spain

14:40-15:00 **Recellularization of vascular and tubular compartments of porcine kidney scaffolds with embryonic stem cells**
Marina Figliuzzi, University of Bergamo, Italy

15:00-15:20 **The contribution of fibronectin to cell-induced tissue morphogenesis**
Foolen Jasper, ETH Zurich, Switzerland

15:20-15:40 **Multifactorial optimization of cell-cocooned collagen-alginate microspheres for cardiac tissue engineering**
Mehrdad Rafat, Linkoping University, Sweden

Coffee Break 15:40-15:55 @ Auditorium 3 Foyer

15:55-16:15 **Guanidine substituted polyamidoamine hydrogels as scaffolds for cell culturing and tissue regeneration**
Paolo Ferruti, Universita degli Studi di Milano, Italy

16:15-16:35 **Beta-catenin signaling regulates the chemotactic responses of mesenchymal stem cells**
Huanxiang Zhang, Medical College of Soochow University, China

16:35-16:55 **Guided tissue engineering for articular cartilage regeneration**
Christoph Brochhausen, University Medical Centre Mainz, Germany

16:55-17:15 **Bionic Materials for Neuromuscular Restoration and Maintenance**
Rob M I Kapsa, University of Wollongong, Australia

17:15-17:35 **Collagen-based biomaterials for tissue engineering and regeneration of the cornea**
Neil Lagali, Linkoping University, UK

17:35-17:55 **Innovative high-throughput multiaxial electro-hydrodynamic processing to enable regenerative medicine**
David Galan, Director of Fluidnatek, Spain

Panel Discussions

Day 2 September 25, 2014

Committee Room 3-4

Keynote Forum

09:00-09:25 **L Lee Chou**
Boston University, USA

Special Session on **"Systems Biology of Stem Cells"**

Session Introduction

Session Chair: Prakash Kulkarni, University of Maryland, USA

09:25-09:45 **Oscillatory protein expression dynamics generates robust and irreversible differentiation of stem cells**
Chikara Furusawa, Quantitative Biology Center, Japan

09:45-10:05 **Critical thresholds in cell fate determination**
Govindan Rangarajan, Indian Institute of Science, India

Coffee Break 10:05-10:20 @ Auditorium 3 Foyer

10:20-10:40 **A cascade of bistable switches controls TGF-β-induced epithelial to mesenchymal transition**
Jianhua Xing, Virginia Tech, USA

10:40-11:00 **Exploring human pluritotent stem cell heterogeneity using a multi-scale imaging and informatics pipeline**
Paul H Lerou, Harvard Medical School, USA

Track 4: Stem Cells- Tools to Battle Cancer
Track 5: Bioreactors in Tissue Engineering

Session Introduction

Session Chair: Cornelia Kasper, University of Natural Resources and Life Science (BOKU), Austria
Session Co-Chair: Valentin Jossen, Zurich University of Applied Sciences, Switzerland

11:00-11:20 **Shaping the microenvironment for physiological cultivation of human adult stem cells**
Cornelia Kasper, University of Natural Resources and Life Science (BOKU), Austria

11:20-11:40 **Regulation of metastasis by endogenous metabolite**
Sudhakar Yakkanti, Cell Signalling & Metabolism Centre, USA

11:40-12:00 **New BEST - biomaterials enhanced simulation test**
Michael Gasik, Aalto University, Finland

12:00-12:20 **A successful approach to rapidly scale up microcarrier-based expansions of human mesenchymal stem cells for allogeneic cell therapies**
Valentin Jossen, Zurich University of Applied Sciences, Switzerland

12:20-12:40 **Spontaneous fusion of breast cancer cells with mesenchymal stem cells: Support for a long-standing hypothesis on cancer metastasis**
Brenda Ogle, University of Minnesota, USA

12:40-13:00 **Development of a bio-inspired blood factory for personalised healthcare**
Athanasios Mantalaris, Imperial College London, UK

Lunch Break 13:00-13:45 @ Multi Purpose Hall 2

13:45-14:05 **Our experience with autologus stem cell applications in chronic non healing ulcers of lower limb**
Sribatsa Kumar Mahapatra, V. S. S. Medical College, India

14:05-14:25 **Oxygen controlled bioprocessing of pluripotent stem cells**
Farlan Veraitch, University College London, UK

14:25-14:45 **The fate of stem cells: Self renewal versus differentiation**
Carlos Martinez-A, Centro Nacional de Biotecnologia/CSIC, Spain

Young Research Forum

Session Chair: Rob M I Kapsa, University of Wollongong, Australia

14:45-15:00 **Thymic tissue regeneration using natural scaffolds**
Ileana Bortolomai, San Raffaele Scientific Institute, Italy

15:00-15:15 **Changes in gene expression, protein content and morphology of chondrocytes cultured on a 3D random positioning machine and 2D rotating clinostat**
Ganna Aleshcheva, Otto-von-Guericke University, Germany

15:15-15:30 **Electrospun nanofibers based on natural biomaterials for regenerative medicine**
Hadi Hajiali, Italian Institute of Technology, Italy

15:30-15:45 **A robust HIV-1 viral load detection assay optimized for Indian sub type C specific strains and resource limiting setting**
Parth Shah, Supratech Micropath Laboratory & Research Institute, India

15:45-16:00 **Allogenic mesenchymal stem cells for the treatment of equine degenerative joint disease**
Charlotte Beerts, Global Stem Cell Technology, Belgium

16:00-16:15 **Strategy optimization of the combination of 3D extruded-based poly(ε-caprolactone) scaffolds with mesenchymal stem cells towards cartilage regeneration**
Carla Sofia Monteiro de Moura, Polytechnic Institute of Leiria, Portugal

Coffee Break 16:15-16:30 @ Auditorium 3 Foyer

Track 7: Novel Approaches in Guided Tissue Regeneration
Track 8: Regeneration & Therapeutics

Session Chair: Kamolz Lars-Peter, Medical University of Graz, Austria
Session Co-Chair: Demissew S Mern, Innsbruck Medical University, Austria

16:30-16:50 **The use of Keratinocytes: Things we should keep in mind!**
Kamolz Lars-Peter, Medical University of Graz, Austria

16:50-17:10 **Neural competent cells of adult human dermis belong to the Schwann lineage**
Ander Izeta, Instituto Biodonostia, Spain

17:10-17:30 **Bupivacaine crystal deposits after long-term epidural infusion**
Ingrid Balga, University Leipzig, Germany

17:30-17:50 **Cardiac telocyte therapy for infarcted myocardium**
Cai Dongqing, Ji Nan University, China

17:50-18:10 **Regenerative potential of outer root sheath melanocytes in tissue grafts**
Marie Schneider, University of Leipzig, Germany

Poster Presentations 15:00-17:00 @ Auditorium 3 Foyer

Parallel Special: Session for Students @ Committee Room 1-2

16:30-17:30 **Scientific Writing, Journal Review, Grant Writing, Strategies for building a scientific carrier and scientific carrier outside Research**
Nikolai Patrovsky, Flinders University, Australia

Panel Discussions

Day 3 September 26, 2014

Committee Room 3-4

Track 7: Novel Approaches in Guided Tissue Regeneration
Track 8: Regeneration & Therapeutics

Session Introduction

Session Chair: Kamolz Lars-Peter, Medical University of Graz, Austria
Session Co-Chair: Demissew S Mern, Innsbruck Medical University, Austria

9:00-9:20 **Critique *in vitro* analysis of platelet concentration effect on cells involved in *in-vivo* wound healing**
Vincenza Dolo, University of L'Aquila, Italy

9:20-9:40 **The roles of autophagy and apoptosis by spermidine in burn wound progression in rats**
Daryousch Parvizi, Medical University of Graz, Austria

9:40-10:00 **A combinatorial relative mass value evaluation of bioactive factors in degenerative cervical and lumbar discs: New indications for gene therapeutic approaches of spinal disc degeneration**
Demissew S Mern, Innsbruck Medical University, Austria

10:00-10:20 **Nanostructured electrically active scaffolds for neural and muscle regeneration**
Rob M I Kapsa, University of Wollongong, Australia

Coffee Break 10:20-10:35 @ Auditorium 3 Foyer

10:35-10:55 **Amniotic derived progenitor cells in different animal species in view of cell therapy applications**
Anna Lange-Consiglio, Large Animal Hospital University of Milan, Italy

10:55-11:15 **Osteodifferentiation of intact amniotic membrane and outcome for tissue engineering**
Florelle Gindraux, University Hospital of Besancon, France

Track 9: Clinical Medicine
Track 10: Cord Blood & Regenerative Medicine
Track 12: Applications of Tissue Engineering & Regenerative Medicine

Session Introduction

Session Chair: Rob M I Kapsa, University of Wollongong, Australia
Session Co-Chair: Andreea Iftimia-Mander, Anthony Nolan Cell Therapy Center, UK

11:15-11:35 **Collagen plus elastin dermal substitute**
Kamolz Lars-Peter, Medical University of Graz, Austria

11:35-11:55 **The polycomb group protein L3MBTL1 represses a smad5-mediated hematopoietic transcriptional program in human pluripotent stem cells**
Fabiana Perna, University of Miami, USA

11:55-12:15 **Cord blood banking: Understanding the critical quality attributes (CQAs) for cell product development and manufacture**
Andreea Iftimia-Mander, Anthony Nolan Cell Therapy Centre, UK

12:15-12:35 ***In situ* characterization of tissue constructs using a multimodal optical imaging/spectroscopy approach**
Nicusor Iftimia, Physical Sciences Inc., USA

12:35-12:55 **Multimodal multicomponent polymer conduits for repair of nerve injury**
Rob M I Kapsa, University of Wollongong, Australia

Lunch Break 12:55-13:45 @ Multi Purpose Hall 2

Video Presentation

13:45-14:00 **Stem cell behavior in development and regeneration: To balance or imbalance**
Ahmed HK El-Hashash, University of Southern California, USA

14:00-14:15 **Concept of cancer stem cells in oral squamous cell carcinoma**
Gokul Sridharan, YMT Dental College and Hospital, India

14:15-14:30 **Human serum as an alternative to fetal bovine serum in adipose tissue-derived stromal cells cultures**
Ana Cláudia C Paula, Universidade Federal de Minas Gerais, Brazil

Panel Discussions

Bookmark your dates

OMICS Group Conferences
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4th International Conference on
Tissue Science & Regenerative Medicine
July 27-29, 2015 Rome, Italy

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