Scientific Program

OMICS Group Conferences
Accelerating Scientific Discovery

International Conference on

Tissue Science & Engineering

October 1-3, 2012 DoubleTree by Hilton Chicago-North Shore, USA



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OMICS Group Conferences
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Email: tissuescience.2012@omicsgroup.us

19:00-20:00 Registrations September 30, 2012

Day 1 October 1, 2012

08:00-09:00 Registrations Versailles AB

OMICS Group Conferences
Accelerating Scientific Discovery

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

Keynote Forum

09:30-09:35 Introduction

09:35-10:00 **Eugene P. Goldberg**
University of Florida, USA

10:00-10:25 **Mahin Khatami**
National Cancer Institute, The National Institutes of Health, USA

Coffee Break 10:25-10:40

10:40-11:05 **David T Harris**
University of Arizona, USA

11:05-11:30 **Gene P. Siegal**
University of Alabama at Birmingham, USA

Track 1: Bone and Cartilage Tissue Engineering
Track 3: Whole Organ Tissue Engineering

Session Introduction

11:30-11:50 **Title: Comparison of cord tissue and adipose tissue for use in tissue engineering: Effects of cryopreservation and donor age**
David T Harris, University of Arizona, USA

11:50-12:10 **Title: The use of microRNA assisted and gene-manipulated mesenchymal stem cell (hMSC) derived osteoblasts optimally propagated and differentiated in TiO2 scaffolds**
Jan Oxholm Gordeladze, University of Oslo, Norway

12:10-12:30 **Title: Regenerative musculoskeletal medicine- Skeletal stem cell based strategies for bone regeneration**
Richard OC Oreffo, University of Southampton, UK

Lunch Break 12:30-13:15

13:15-13:35 **Title: Skin from hair and further therapeutic potential of the hair root outer root sheath cell pool**
Vuk Savkovic, University of Leipzig, Germany

13:35-13:55 **Title: Injectable polycaprolactone nanofibers interspersed-collagen scaffold (P-NCOL) for improved MC3T3-E1 osteogenic activity**
Eda D. Yildirim, University of Toledo, USA

13:55-14:15 **Title: Vitalize synthetic vascular grafts in vivo**
Yadong Wang, University of Pittsburgh, USA

14:15-14:35 **Title: PDMSstar-PEG hybrid scaffolds for bone tissue engineering**
Melissa A. Grunlan, Texas A&M University, USA

14:35-14:55 **Title: Tissue engineered, scaffold free, human cartilage sheets**
Thomas J Kean, Benaroya Research Institute, USA

14:55-15:15 **Title: Comparison of crosslinking reagent and platelet-rich plasma therapeutic efficacies on biomechanical functions and biochemistry properties of degraded intervertebral disc – An ex vivo study using whole organ culture system**
Ya-Wen Kuo, National Taiwan University, Taiwan

15:15-15:35 **Title: On the decellularization process of human umbilical arteries: Implications for small-diameter tissue-engineered vascular grafts**
Ho-Yi Tuan-Mu, National Cheng Kung University, Taiwan

Coffee Break 15:35-15:50

Track 2: Materials for Molecular Mediation

Session Introduction

15:50-16:10	**Title: Adhesion to extracellular matrix-derived peptides can differentiate between human bone marrow derived mesenchymal stem cells and MSC-like pericytes** **Wilhelm K. Aicher,** University Medical Center, Germany
16:10-16:30	**Title: The impact of mechanical properties of biomaterials and scaffolds on inflammation and tissue organization** **Lars M. Bjursten,** Lund University, Sweden
16:30-16:50	**Title: Silica based nanostructured biomaterials/biofluids interface procceses** **Simion Simon,** Babes Bolyai University, Romania
16:50-17:10	**Title: The development and future of ultrahigh molecular weight polyethylene as a synthetic joint bearing surface** **Ebru Oral,** Massachusetts General Hospital, USA
17:10-17:30	**Title: Control of stem cell fate on biphasic polyurethane matrices** **Debanjan Sarkar,** University of Buffalo, USA
17:30-17:50	**Title: Hard and soft tissue management for single tooth implant replacement in the estetic zone** **Francesco Amato,** University of Catania, Italy
17:50-18:10	**Title: The interaction of macrophages with biomaterials** **Marianne B Ariganello,** University de Montreal, Canada
18:10-18:30	**Title: Synthetic PEG hydrogel enabling technologies for the neovascularization of engineered tissues** **Georgia Papavasiliou,** Illinois Institute of Technology, USA

Panel Discussion

Cocktails: Sponsored by Journal of Tissue Science & Engineering **18:30-19:30**

Day 2 October 2, 2012

Versailles AB

Track 4: Tissue Regeneration

Session Introduction

09:00-09:20	**Title: Decellularized stem cell matrix: A novel cell expansion system for cartilage tissue engineering** **Ming Pei,** West Virginia University, USA
09:20-09:40	**Title: Drug-eluting structures for various tissue regeneration applications** **Meital Zilberman,** Tel-Aviv University, Israel
09:40-10:00	**Title: Towards localized elastic matrix regenerative strategies to stabilize growing abdominal aortic aneurysms (AAAs)** **Anand Ramamurthi,** The Cleveland Clinic, USA
10:00-10:20	**Title: Protein tyrosine kinase 6 signaling in the regenerating epithelial linings of the intestine** **Angela L. Tyner,** University of Illinois College of Medicine, USA
10:20-10:40	**Title: Characterization of Wnt signaling pathways in keloid pathogenesis** **Mohammad Ghazizadeh,** Nippon Medical School, Japan

Coffee Break 10:40-10:55

10:55-11:15	**Title: Proteomics-based dissection of human endoderm progenitors by differential cell capture on antibody array** **Yoav Soen,** Weizmann Institute, Israel
11:15-11:35	**Title: Extracellular matrix remodeling and amphibian limb tissue regeneration** **Fengyu Song,** Indiana University School of Dentistry, USA
11:35-11:55	**Title: Myogenic differentiation of FSHD patient specific induced pluripotent stem cells** **Darko Bosnakovski,** University "Goce Delcev", R. Macedonia
11:55-12:15	**Title:Biofunctional injectable hydrogels for orthopaedic applications** **Lakshmi S. Nair,** University of Connecticut Health Center, USA
12:15-12:35	**Title: Differentiation of human embryonic stem cells into limbal stem cells promotes corneal regeneration in limbal stem cell deficiency** **Xinyi Wu,** Qilu Hospital of Shandong University, China

Lunch Break 12:35-13:20

13:20-13:40	**Title: Neural differentiation of mesenchymal stem cells influences their chemotactic responses to hepatocyte growth factor** **Huanxiang Zhang,** Medical College of Soochow University, China
13:40-14:00	**Title: Monitoring tissue regeneration by magnetic resonance imaging and spectroscopy** **Mrignayani Kotecha,** The University of Illinois at Chicago, USA

Track 5: Bioreactors in Tissue Engineering
Track 6: Bioengineering and Therapeutics

Session Introduction

14:00-14:20	**Title: Bioreactor systems for cell expansion and differentiation** **Cornelia Kasper,** University of Natural Resources and Life Science, Austria
14:20-14:40	**Title: Human umbilical cord blood mesenchymal stem cell promotes neurogenesis in an animal model of Alzheimer's disease** **Jong Wook Chang,** MEDIPOST Co., Ltd, Republic of Korea
14:40-15:00	**Title: Regenerative strategies for different injuries of tendons: Development of a biocompatible re-cellularized scaffold; in vivo treatment with MSCs and PRP in injured tendons** **Marco Patruno,** University of Padova, Italy
15:00-15:20	**Title: Stem cell therapy of osteoarthritis using adipose tissue-derived stromal vascular fraction cells** **Jaroslav Michalek,** ICCTI, Czech Republic
15:20-15:40	**Title: Lab photobioreactor & bioreactor systems: R&D prototyping toward fully integrated end to end systems for stem cell and tissue research, engineering and personalized regenerative medicine** **Robin L. Ore,** Femtobeam LLC, USA
	Coffee Break 15:40-15:55
15:55-16:15	**Title: Molecular and cellular mechanisms of human mesenchymal stem cell homing** **Sergey Doronin,** State University of New York, USA
16:15-16:35	**Title: From peripheral blood-derived mesenchymal stem cells to tenocytes: Would a horse notice the difference?** **Jan H Spaas,** Global Stem Cell Technology, Belgium
16:35-16:55	**Title: Bioreactors to investigate the mechanotransduction in tissue engineering** **K. Narasimhulu,** National Institute of Technology, India
16:55-17:15	**Title: Designing culture process to maintain population balance of skeletal muscle myoblasts and fibroblasts in culture** **Shiplu Roy Chowdhury,** Universiti Kebangsaan Malaysia, Malaysia
	Panel Discussion
16:00-17:30	**Poster Presentations** — **Berlin**
	Cocktails: Sponsored by Journal of Biochips and Tissue Chips — **18:50-19:50**

Day 3 October 3, 2012

Versailles A

Track 7: Scaffolds
Track 8: Biochips and Tissue Chips
Track 9: Clinical Medicine

	Session Introduction
09:00-09:20	**Title: Engineering cell surfaces via liposome fusion to direct complex tissue assembly** **Muhammad N. Yousaf,** University of North Carolina, USA
09:20-09:40	**Title: Multi-layer scaffolds for heart valve tissue engineering** **Jan T Czernuszka,** University of Oxford, UK
09:40-10:00	**Title: Engineering the stem cell microenvironment** **Janet Zoldan,** Massachusetts Institute of Technology, USA
10:00-10:20	**Title: Control of terminal erythropoiesis via autonomous physical interactions and contact-mimicking stimuli** **Eun Jung Baek,** Hanyang University, Korea
	Coffee Break 10:20-10:35
10:35-10:55	**Title: Glutaraldehyde-treated homologous vein graft as a vein substitute: Experimental study in rabbits** **Regina Moura,** Sao Paulo State University, Brazil
10:55-11:15	**Title: Engineering patterned human brain cells on silicon chip** **Charles P. Unsworth,** University of Auckland, New Zealand
	Editorial Board Meeting
	Lunch Break 12:00-12:45

Bookmark your dates

2nd International Conference on

Tissue Science & Engineering

OMICS Group Conferences
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September 3-5, 2013 Florida, USA

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