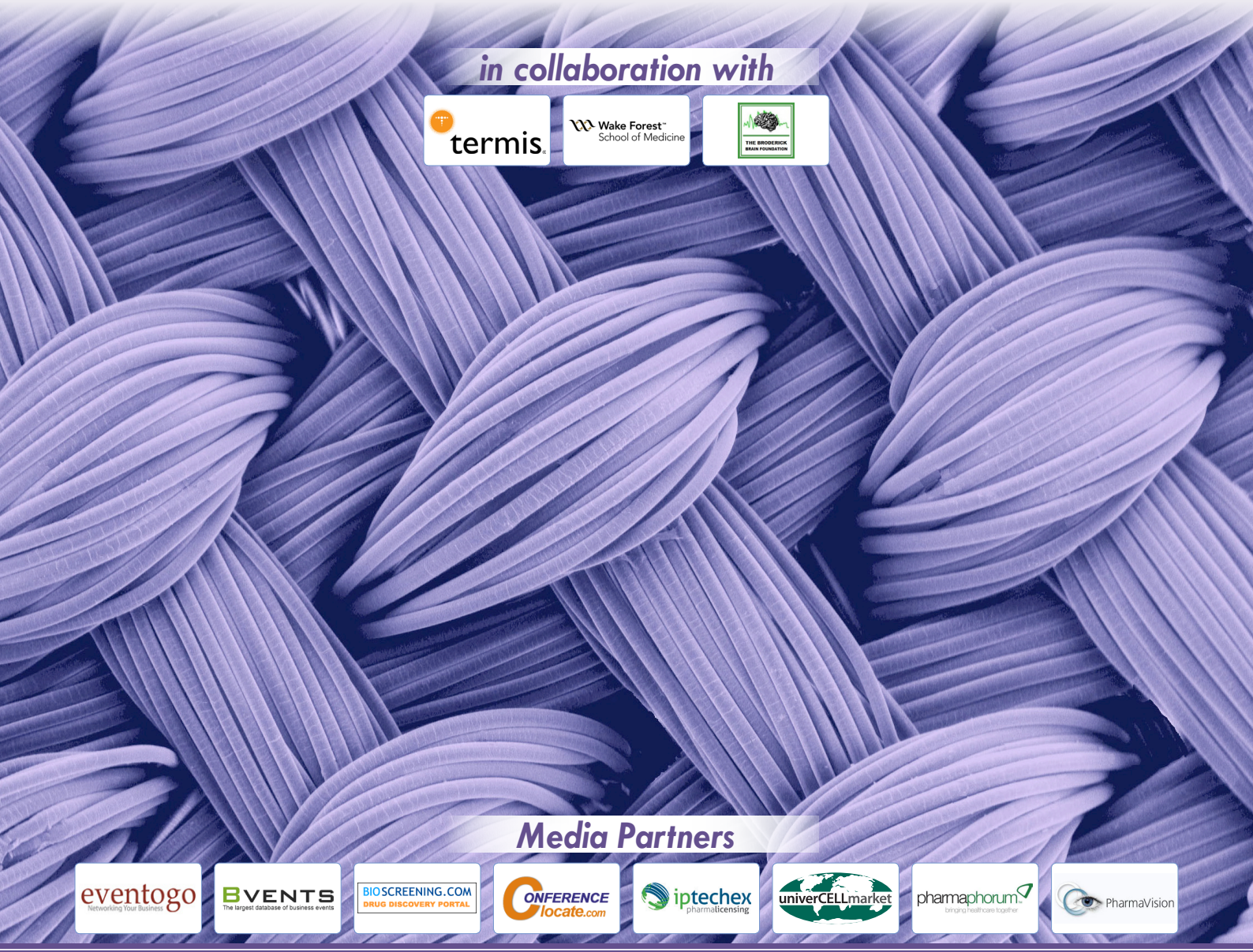
Scientific Program

2nd International Conference on

Tissue Science & Regenerative Medicine

August 26-28, 2013 DoubleTree by Hilton, Raleigh, NC, USA



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Email: *tissuescience2013@omicsgroup.com*

Day 1 August 26, 2013

07:30-08:30 **Registrations**

Washington

OMICS Group Conferences
Accelerating Scientific Discovery

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

Keynote Forum

08:30-08:35 **Introduction**

08:35-09:00 **Mahin Khatami**
National Institutes of Health (retired), USA

09:00-09:25 **Denis Barritault**
University Paris-Est Creteil, France

09:25-09:50 **Farshid Guilak**
Duke University Medical Center, USA

09:50-10:15 **Harish C. Pant**
National Institutes of Health, USA

Coffee Break 10:15-10:30

10:30-10:35 **Group Photo**

Track 2: Materials & Designs for Tissue Engineering

Session Chair: Meital Zilberman, Tel-Aviv University, Israel
Session Co-Chair: Debanjan Sarkar, University at Buffalo, USA

Session Introduction

10:35-10:55 Elongating the survival of hyaluronan (HA) molecules: Employing HA cross-linkers, modified HA or HA hybrids
Zvi Nevo, Tel-Aviv University, Israel

10:55-11:15 Biomimetic forces and fibers to regulate human stem cell fate for functional tissue engineering and regenerative medicine applications
Elizabeth G. Loboa, NC State University, USA

11:15-11:35 Soy-protein as a biomaterial for tissue regeneration and drug delivery applications
Meital Zilberman, Tel-Aviv University, Israel

11:35-11:55 Is it possible to increase the osteoblastic activity by using PLGA composites that are produced by calcium phosphate dibasic?
Nevzat Selim Gokay, Namik Kemal University, Turkey

11:55-12:15 Biphasic gels for regenerative applications
Debanjan Sarkar, University at Buffalo, USA

12:15-12:35 "Bovine bone screws x bone onlays": An alternative to apposicional bone graft. Histologic study in Beagle dogs
Marco A. B. Pontual, Federal University of Espirito Santo, Brazil

Lunch Break 12:35-13:20 @ Roosevelt

13:20-13:40 Lanthanides doped glass-reinforced hydroxyapatite (GR-HA) composites with antibacterial properties as bone substitutes
Sooraj Hussain Nandyala, Universidade do Porto, Portugal

13:40-14:00 Nanofibrillar cellulose hydrogel promotes 3D cell culture
Yan-Ru Lou, University of Helsinki, Finland

14:00-14:20 Recombinant spider silk matrices for cell culture
Anna U. Rising, Karolinska Institutet, Sweden

14:20-14:40 Nanofibrous self-assembling peptide hydrogels for tissue engineering applications
Julie E. Gough, University of Manchester, UK

14:40-15:00 Fibrocyte - A multi-potential autologous cell source for tissue engineering
Changying Ling, University of Wisconsin, USA

15:00-15:20 Injectable microcarrier with sustained growth factor delivery for bone regeneration
Xiaohua Liu, Texas A&M University Baylor College of Dentistry, USA

15:20-15:40 Application of proteins or peptides on implant surfaces and their effects on biologic responses at bone-implant interfaces
In-Sung Yeo, Seoul National University, Korea

Coffee Break 15:40-15:55 @ Roosevelt

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

Session Chair: Anand Ramamurthi, Cleveland Clinic, USA
Session Co-Chair: Mei Wan, Johns Hopkins University School of Medicine, USA

Session Introduction

15:55-16:15 Multifunctional nanoparticles for controlled thrombolysis and stimulated elastogenesis in abdominal aortic aneurysms (AAAs)
Anand Ramamurthi, Cleveland Clinic, USA

16:15-16:35 Stem cell populations giving rise to liver, biliary tree and pancreas
Lola M. Reid, UNC School of Medicine, USA

16:35-16:55 Stem cell recruitment and angiogenesis of neuropeptide substance P coupled with self-assembling peptide nanofiber on tissue regeneration
Soo Hyun Kim, Korea Institute of Science and Technology, Republic of Korea

16:55-17:15 **Active TGFβ recruits mesenchymal stem cells for tissue repair/remodeling**
Mei Wan, Johns Hopkins University School of Medicine, USA

17:15-17:35 **CYR61 improves muscle force recreation in a rabbit trauma model**
Soenke Percy Frey, University of Wuerzburg, Germany

17:35-17:55 **Dynamics of focal adhesions and reorganization of F-actin in VEGF-stimulated neural stem cells under varying differentiation states**
Huanxiang Zhang, Medical College of Soochow University, China

17:55-18:15 **Cryogels: Novel matrices for the repair of cartilage lesions**
Sumrita Bhat, Indian Institute of Technology Kanpur, India

18:15-18:35 **Where vascular tissue engineering meets integrated omics: Discovering markers in pericytes and circulatory progenitor cells mimetic**
Jinqing Li, University of North Carolina, USA

Panel Discussion

18:35-19:35 Cocktails Sponsored by **Journal of Tissue Science & Engineering**

Day 2 August 27, 2013

Washington

Workshop

08:30-09:15 **Conjugated gel for tissue growth and repair (GRG)**
Zvi Nevo, Tel-Aviv University, Israel

Track 6: Scaffolds

Session Chair: Damiano Pasini, McGill University, Canada
Session Co-Chair: Jan H. Spaas, Global Stem Cell Technology, Belgium

09:15-09:35 **A microarchitectured material for a mechanically biocompatible hip implant**
Damiano Pasini, McGill University, Canada

09:35-09:55 **Scaffolds for tissue regeneration**
Sundararajan V. Madihally, Oklahoma State University, USA

09:55-10:15 **Microfluidics: A powerful tool for the fabrication of tailored scaffolds**
Andrea Barbetta, Sapienza University of Rome, Italy

10:15-10:35 **An intravenous injection of peripheral blood-derived mesenchymal stem cells (Veno-Cell®): Would it make a difference?**
Jan H. Spaas, Global Stem Cell Technology, Belgium

Coffee Break 10:35-10:50 @ Roosevelt

10:50-11:10 **Laser ablating parylene-C for cell patterning applications**
Charles P. Unsworth, University of Auckland, New Zealand

11:10-11:30 **Electrospun silk fibroin nanofibers in different diameters support neurite outgrowth and promote astrocyte migration**
Huanxiang Zhang, Medical College of Soochow University, China

11:30-11:50 **The mechanism of scar formation- The defection of dermal template**
Shuliang Lu, Shanghai Jiao Tong University, China

11:50-12:10 **Nanofibrillar cellulose hydrogel as a novel 3D scaffold for cell culturing**
Liisa Kanninen, University of Helsinki, Finland

Special Session

12:10-12:55 **Global safety guidance for the cell-based implants**
Hwal (Matthew) SUH, Yonsei University College of Medicine, Korea

Lunch Break 12:55-13:40 @ Roosevelt

Track 4: Gene and Drug Delivery
Track 5: Bioreactors in Tissue Engineering
Track 7: Novel Approaches in Guided Tissue Regeneration

Session Introduction

Session Chair: Cornelia Kasper, University of Natural Resources and Life Science, Austria
Session Co-Chair: Sundararajan V. Madihally, Oklahoma State University, USA

13:40-14:00 **Optimizing culture conditions for stem cells**
Cornelia Kasper, University of Natural Resources and Life Science, Austria

14:00-14:20 **The ideal timing of sirna plasmid transfection on primer chondrocyte cultures**
Nevzat Selim Gokay, Namik Kemal University, Turkey

14:20-14:40 **Bioreactors for tissue engineering**
Sundararajan V. Madihally, Oklahoma State University, USA

14:40-15:00 **Evaluation of matrix metalloproteinases, their inhibitors and their participation in cervical carcinogenesis**
Jacinto da Costa Silva Neto, Federal University of Pernambuco, Brazil

15:00-15:20 **Non-destructive real-time imaging of tissue regeneration**
Shay Soker, Wake Forest School of Medicine, USA

15:20-15:40 **Synergistic effect of TGF-β1 and BMP-7 on chondrogenesis and extracellular matrix synthesis**
Nevzat Selim Gokay, Namik Kemal University, Turkey

Coffee Break 15:40-15:55

15:55-16:15 **Modification of the bovine genome for large-scale production of human serum albumin**
Shaida Moghaddassi, Wake Forest School of Medicine, USA

16:15-16:35 **Colloidal gels: A new class of biomaterials for tissue regeneration**
Emily Beck, University of Kansas, USA

Symposium on "Towards Clinical Translation of Regenerative Medicine"

Symposium Chair: Shay Soker, Wake Forest School of Medicine, USA

16:35-16:50 **Towards clinical translation of regenerative medicine**
Shay Soker, Wake Forest School of Medicine, USA

16:50-17:05 **Human stromal progenitor cells for immunomodulation and tissue repair**
Graca Alameida-Porarda, Wake Forest School of Medicine, USA

17:05-17:20 **Cell therapy for muscle injuries**
Tracy Criswell, Wake Forest School of Medicine, USA

17:20-17:35 **Urothelial differentiation of human urine-derived stem cells with barrier functional for urological tissue repair**
Yuanyuan Zhang, Wake Forest School of Medicine, USA

17:35-17:50 Liver bioengineering
Pedro Baptista, Wake Forest School of Medicine, USA

17:50-18:05 Modeling metastasis *in vitro* within 3-D host tissue organoids
Aleksander Skardal, Wake Forest School of Medicine, USA

18:05-18:20 Antibody-directed cellularization of heart valve implants
J. Koudy Williams, Wake Forest School of Medicine, USA

18:20-18:35 Biobanking of stem cells
Julie G. Allickson, Wake Forest School of Medicine, USA

18:35-18:50 Human Spermatogonial Stem Cell (SSC) autotransplantation to preserve fertility in high risk patients: Current situation and future implications
Hooman Sadri-Ardekani, Wake Forest School of Medicine, USA

Panel Discussion

14:00-15:00 Poster Presentations @ Roosevelt

18:45-19:35 Cocktails Sponsored by **Journal of Biochips & Tissue Chips**

Award Ceremony

Day 3 August 28, 2013

Washington

Workshop on Proprietary BRODERICK PROBE® biosensors & related biotechnologies; Carbon nanoparticles comprised of lipids & stem cells

Session Introduction

Workshop Chair: Patricia A. Broderick, The Sophie Davis School of Biomedical Education, CCNY, CUNY, USA

09:00-10:00 Overview of Neuromolecular Imaging (NMI): Principles demonstrating the BRODERICK PROBE® molecular recognition: Inventor
Patricia A. Broderick, The Sophie Davis School of Biomedical Education, CCNY, CUNY, USA

Overview of Neuromolecular Imaging (NMI): Proprietary Neurochemicals
Aruna Seegolam, The Sophie Davis School of Biomedical Education, USA

Overview of Neuromolecular Imaging (NMI): Applications
Jack Jacoby, University of Medicine and Dentistry of New Jersey, USA

10:00-10:40 Conditioning the BRODERICK PROBE® *in vitro*: The process
Idaliene Hernandez, Hunter College, USA

Conditioning the BRODERICK PROBE® *in vitro*: Signal Processing
Diego Buenaventura, The City College of New York, USA

Coffee Break 10:40-10:55 @ Roosevelt

10:55-12:00 NMI: Interpreting the data: Neurotransmitters
Lauren Malave, The Sophie Davis School of Biomedical Education, USA

Track 8: Regeneration and Therapeutics
Track 9: Clinical Medicine
Track 10: Business of Regenerative Medicine

Session Introduction

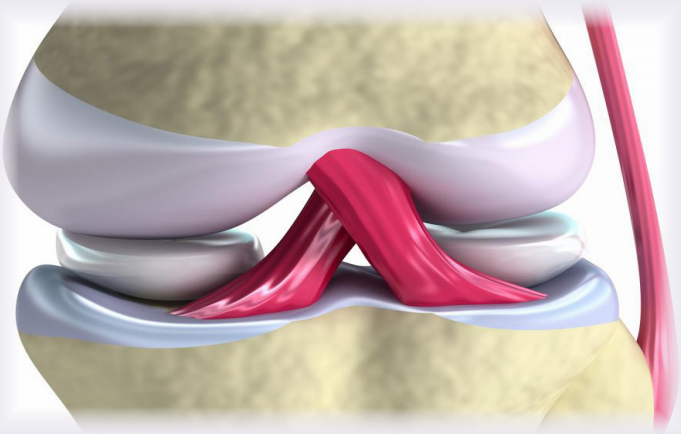
Session Chair: Patricia A. Broderick, The Sophie Davis School of Biomedical Education, CCNY, CUNY, USA

12:00-12:20 Stem cells to the market place
Karl M. Nobert, Squire Sanders (U.S.) LLP, USA

12:20-12:40 Wound healing activity study of Commiphora myrrha Engl. (Burceraceae); using *in vivo* and *in vitro* experiments
Michael Gebrehiwot, Mekelle University, Ethiopia

Panel Discussion

Lunch Break 12:45-13:30 @ Roosevelt



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3rd International Conference on
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