Podium Presentations - Monday, December 6, 2010

8:00 am	**Welcome Announcement - Anthony Atala, General Conference Chair and James Yoo, Scientific Chair - *International Ballroom***			
8:05 am	**Plenary Speaker I - Stem Cell Differentiation - Ronald McKay - *International Ballroom***			
9:00 am	**Award Announcement and Presentation - Lifetime Achievement Award - Arnold Caplan**			
9:30 am	**Coffee Break with Poster Viewing - *Grand Ballroom***			
Session I 10:00 - 11:30am	**STEM CELLS IN REGENERATIVE MEDICINE**	**BIOMATERIAL-BASED TISSUE REGENERATION**	**CONTROLLING MICROENVIRONMENT AND CELL FATE**	**NANOBIOTECHNOLOGY FOR REGENERATIVE MEDICINE**
Session Chairs	**Arnold Caplan**	**Rui Reis and David Kaplan**	**Esmaiel Jabbari and Ali Khademhosseini**	**James Hickman and Kara McCloskey**
Student Co-Chair	**Katherine Chiang**	**Jaehyum Kim**		
Meeting Room	**INTERNATIONAL NORTH**	**INTERNATIONAL CENTER**	**INTERNATIONAL SOUTH**	**GRAND SALONS 1 & 2**
10:00 am	**Arnold Caplan** Cell-Based Therapies Using Adult Mesenchymal Stem Cells	**Claudio Migliaresi** Fibroin Based Scaffold for Tissue Engineering	**Jennifer Elisseeff** Stem Cells and Biomaterials in Regulating Local Microenvironments	**Russell Higbee** Performing a Clinical Trial of the Future Now
10:30 am	**Bridget Deasy** Sex Differences in Osteogenic Differentiation of Umbilical Cord Stem Cells	**Dennis Discher** Matrix and Myosin in Stem Cell Programming	**Todd McDevitt** Combinatorial Approaches to Engineer the Microenvironment of Pluripotent Stem Cells for Directed Morphogenesis	**James Hickman** Engineering a Functional In Vitro Model of the Spinal Stretch Reflex Arc
10:45 am	**David Mack** Differentiation of Primate Amniotic Fluid-Derived Stem Cells into Beta Cells In Vitro and In Vivo		**John Brekke** 3D Cell Culture Microenvironment: Rationale For Material Selection and Method of Fabrication	**Kara McCloskey** Multi-scale Biomimetic Topography for the Alignment of Neonatal and Embryonic Stem Cell-derived Heart Cells
11:00 am	**Tsung-Lin Tsai** Pre-differentiation TGF-beta Receptor Signaling Regulation by Glucose Affects Human MSC Chondrogenic Capacity	**Marcia Rodrigues** In Vitro and In Vivo Evaluation of Constructs Based on Cultured Amniotic Fluid Stem Cells and Starch-Polycaprolactone Scaffolds for Bone Regeneration	**Esmaiel Jabbari** Effect of 3D Microstructure on Osteogenic Expression of Mesenchmal Stem Cells	**Matthew Webber** Nanostructures for the Support of Therapeutic Cells In Cardiovascular Disease Strategies
11:15 am	**Mo Chen** Ectopic Human Stro1+CD146- Cells Engraft and Restore Dystrophin Expression in mdx Mice	**Kyobum Kim** Stereolithographical Bone Scaffold Fabrication and its Enhanced Osteogenic Signal Expression Over Random Pore Architecture of Poly(Propylene Fumarate)/ Diethyl Fumarate Composites	**Chien-Chi Lin** Biomimetic Strategy to Enhance Cell Communication	**Daniel Abebayehu** Basement Membrane Polycaprolactone Blend Nanofibers As A Scaffold For Tissue Engineering
11:30 am	**Lunch Break with Poster Viewing - *Grand Ballroom***			
11:30 am	**TERMIS-NA Council Meeting - *Poinsettia/Quince (Second Floor)***			

Podium Presentations - Monday, December 6, 2010

Session II 1:00 - 2:30pm	CELL TRACKING AND IMAGING	BIOMATERIALS FABRICATION AND SYNTHESIS	BIOREACTOR TECHNOLOGIES	IMMUNOLOGY AND TISSUE RESPONSES IN REGENERATIVE MEDICINE
Session Chairs	**Shay Soker and Joseph Frank**	**Peter Ma and Bill Wagner**	**Aaron Goldstein and Milica Radisic**	**Julia Babensee**
Student Co-Chair			**Masood Machingal**	
Meeting Room	INTERNATIONAL NORTH	INTERNATIONAL CENTER	INTERNATIONAL SOUTH	GRAND SALONS 1 & 2
1:00 pm	**Ali Arbab** Multimodal Imaging to Track Administered Cells	**Manoj Charati** Synthesis and Characterization of Injectable and MMP-sensitive Hyaluronic Acid Hydrogels	**Gordana Vunjak-Novakovic** Recent Advances in Bioreactor Designs for Tissue Engineering	**Alice Tomei** CCL21 Immunoprotects Allografts and Xenografts from Rejection
1:15 pm		**Ying Wang** Fast-curing Nitric Oxide-releasing Poly(diol citrate)		**Bryan Brown** Differences in the Remodeling Outcome Following the Implantation of Extracellular Matrix Scaffolds are Associated with Differences in Local Macrophage Phenotype
1:30 pm	**Bradley Hann** Toward a Biocompatible, MRI Detectable Hydrogel for Cell Implantation	**Kyung Shin Kang** Reconstruction of Cranial Bone Defects with BMP-2 Releasing Scaffolds	**Menahem Rotenberg** Micro-fabricated Multi-Shear Bioreactor	**Carolyn Holladay** Interleukin-10 Functionalised Scaffold Improves Stem Cell Retention In Vivo
1:45 pm	**Tracy Criswell** Imaging Vasculogenesis in Regenerating Skeletal Muscle	**Mitchell Ladd** Engineering of Muscle-Tendon Junctions Using an Integrated Dual Scaffolding System	**Robyn Cardwell** Application of Mechanical Stretch to Elastomeric, Electrospun Polyurethane Scaffolds for Musculoskeletal Tissue Engineering	**Julia Babensee** Tolerance Induction Through Biomaterials
2:00 pm	**Mya Mya Thu** Self Assembling Iron-based Nanoparticles for Magnetic Resonance Cell Tracking and Imaging	**Jonathan Wallace** Continuous DLP Rendering of Tissue Engineering Scaffolds	**Karl Wenger** A Pneumatic Bioreactor for HighHydrostatic Stress at Physiological Cyclic Frequencies	**Joan Nichols** Human Immune Response to Acellular Lung Scaffold
2:15 pm	**Michal Gabay** Functional Optical Imaging Monitoring Angiogenesis and Osteogenesis in Calvarial Repair	**Jian Yang** A New Generation of NaCl Porogens for Tissue Engineering Scaffolding	**Jian Ling** Bioreactor System for MSCs Expansion	**Phil Stephens** Determining the Immunological Properties of Oral Mucosa Lamina Propria Progenitor Cells
2:30 pm	**Break with Poster Viewing** - *Grand Ballroom - Hosted by Covidien*			
2:30 - 3:00 pm	**SYIS Job Search Discussion** - *Grand Ballroom Salons 1 & 2*			

Podium Presentations - Monday, December 6, 2010

Session III 3:00 - 4:30pm	REGENERATION BY ENDOGENOUS CELL HOMING	FUNCTIONALIZATION OF CELLS AND BIOMATERIALS	DIGITAL BIOFABRICATION	DEVELOPMENT OF STANDARDS IN TISSUE ENGINEERING AND REGENERATIVE MEDICINE (PANEL)
Session Chairs	**Jeremy Mao and Stephen Badylak**	**Edward Schwarz**	**Wei Sun**	**Kurt Kasper and Anthony Ratcliffe**
Student Co-Chair	**In Kap Ko**	**Sayed-Hadi Mirmalek-Sani**		
Meeting Room	INTERNATIONAL NORTH	INTERNATIONAL CENTER	INTERNATIONAL SOUTH	GRAND SALONS 1 & 2
3:00 pm	**Jeremy Mao** Regeneration by Cell Homing	**Maria Bahawdory** Mechanistic Investigation of a Hemostatic Keratin Biomaterial	**Fabien Guillemot** Laser-Assisted Bioprinting for Microbiofabrication	**PANEL DISCUSSION** **Dr Barbara Boyan** Price Gilbert, Jr. Chair in Tissue Engineering Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University Associate Dean for Research, College of Engineering Georgia Institute of Technology **Dr Barbara Blum** Sr. Project Engineer II Wright Medical Technology, Inc. **Dr Fei Wang** (NIH) Director, Musculoskeletal Tissue Engineering and Regenerative Medicine Program Division of Musculoskeletal Diseases National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) National Institutes of Health (NIH)
3:15pm		**Kelvin W K Yeung** Improving Quality of Life through Reducing Post-operative Bacterial Infections	**Dong-Woo Cho** 3D Scaffold Fabrication Technologies Based on Solid Freeform Fabrication	
3:30pm	**Brendan Purcell** In Situ Forming Hyaluronic Acid Hydrogels to Augment Cell Homing	**Craig Finch** Whispering Gallery Mode Biosensing for Label-Free Quantification of Protein Adsorption on Biomaterials	**Lawrence Bonassar** Image-based Tissue Engineering of Human Ear Cartil	
3:45 pm	**In Kap Ko** Enhancing Stem Cell Recruitment for In Situ Tissue Regeneration	**Kanika Chawla** Saccharide-Peptide Hybrid Copolymers for Three-Dimensional (3D) Culture of Mesenchymal Stem Cells (MSCs)	**Hyun-Wook Kang** Development and Validation of an Integrated Organ Printing System	
4:00 pm	**Stephen Badylak** Matrix Derived Small Peptides Show In-vitro and In-vivo Stem Cell Recruitment	**Sung In Jeong** Biodegradable, Photo-crosslinked Alginate Nanofiber Scaffolds with Controlled Cell Adhesivity and Affinity-Binding Mediated Growth Factor Release	**Jonathan Butcher** 3D Printing Heterogeneous Anatomically Accurate Hydrogel Heart Valves Using Collagen and PEGDA Interpene-trating Networks	
4:15 pm		**Christine Kowalczewski** Surface-Mediated Delivery of Small Interfering Ribonucleic Acid Polyplexes	**Chirag Khatiwala** Fully Biological Multi-layered Vascular Grafts Generated with the NovoGen MMXTM Bioprinter	
4:30-6 pm	**Exhibit Viewing & Poster Session I**			

Where Discovery Meets Innovation

Notes

Podium Presentations - Tuesday, December 7, 2010

6:45	**SYIS 5K Fun Run/Walk - Anthony Atala and James Yoo - *Convention Center Doors***			
8:00 am	**Welcome Announcement - *International Ballroom*** **PLENARY SPEAKER II - *Building a "Body-on-a-Chip": Toward Better Drug Development* - Michael Shuler**			
9:00 am	**Award Presentation - TERMIS Young Investigator Award - Ali Khademhosseini** **WFIRM Young Investigator Award Winners - Bryan Brown and James Moon**			
9:30 am	**Coffee Break with Poster Viewing - *Grand Ballroom***			
Session I 10:00 - 11:30 am	**CARDIAC TISSUE REGENERATION**	**SOFT TISSUE REPAIR**	**SKIN AND WOUND HEALING**	**ENDOCRINE SYSTEM**
Session Chairs	**Nenad Bursac and Karen Christman**	**George Christ**	**Yong Li and Pat Hebda**	**Athanassios Sambanis and Cherie Stabler**
Student Co-Chair	**Rohin Iyer**	**Evangelia Bellas**	**Bob Gauvin**	
Meeting Room	**INTERNATIONAL NORTH**	**INTERNATIONAL CENTER**	**INTERNATIONAL SOUTH**	**GRAND SALONS 1 & 2**
10:00 am	**Nenad Bursac** Engineering Functional Myocardium from Cardiac and Cardiovascular Progenitors	**Thomas Walters** Engineered Skeletal Muscle for the Treatment of Volumetric Muscle Loss (VML): Testing Platforms and Functional Assessment	**Robert Gauvin** Optimization of Tissue-Engineered Skin Produced In vitro: Impact of Fabrication Method and Air-Liquid Interface Maturation on the Contractile Behavior	**Kazuo Ohashi** Bioengineering of Functional Neo-islets In Vivo Using Cell Sheet Technology
10:15 am	**Anton Mihic** Cyclic Stretch Enhances Three Dimensional Tissue Formation of Embryonic Stem Cell-Derived Cardiomyocytes		**Chung Eun Yeum** The Amount of MSCs Effective on Wound Healing	**Cherie Stabler** Combinatory Effects of Pro-Angiogenic Polymers and Macro-porous Scaffolds for the Transplantation of Islets within an Alternative Site
10:30 am	**Jeffrey Jacot** Cardiogenic Potential of Amniotic Fluid Stem Cells	**Jian Wu** Corneal Stromal Tissue Regeneration by hCSSCs	**Kyle Binder** In Situ Bioprinting of the Skin for Burns	**Kiranmai Durvasula** Improving Insulin Expression in Recombinant Murine Enteroendocrine L Cells Using Viral Vectors
10:45 am	**Carolyn Holladay** Enhancing Stem Cell Retention within a Functionalised Scaffold after Implantation in an Infarcted Heart	**Iwen Wu** Adipose-Derived Biomaterials for Soft Tissue Reconstruction	**Huafeng Sun** Angiogenesis is Enhanced by Sustained Delivery of rhGM-CSF from Porous Collagen-Chitosan Scaffolds	**Sayed-Hadi Mirmalek-Sani** Use of Acellular Pancreatic Matrix to Support Beta Cell Differentiation
11:00am	**Shu Liu** Cardioprotective Role of Hepatic Cells	**Donna Haworth-Ward** Influence of Silk Gel and Adipose Stem Cells on Soft Tissue Regeneration	**Yong Li** The Benefits of Preventing Fibrosis in Wound Healing of Musculoskeletal System	**Sunyoung Joo** Development of an Ovarian Cell Maturation System for the Restoration of Ovarian Tissue Function
11:15 am	**Karen Christman** Injectable Myocardial Matrix Hydrogel for Treating Myocardial Infarction	**Adam Young** Characterization of an Injectable Scaffold from Decellularized Human Lipoaspirate		**Antonello Pileggi** Transplantation of Pancreatic Islets into a Prevascularized, Subcutaneous Device with Local Immunosuppression
11:30	**Lunch Break with Poster Viewing - *Grand Ballroom***			
11:30	**SYIS Student Meet Mentor Lunch - *Palm I Ballroom***			

Podium Presentations - Tuesday, December 7, 2010

Session II 1:00 - 2:30pm	ANGIOGENESIS AND VASCULAR TISSUE ENGINEERING	CARTILAGE TISSUE ENGINEERING	NEURAL TISSUE ENGINEERING	UROLOGIC TISSUE
Session Chairs	**Robert Tranquillo**	**Robert Guldberg**	**Shelly Sakiyama-Elbert and Gregory Borschel**	**Roger De Filippo and Tamer AbouShwareb**
Student Co-Chair	**Karen Shu**			
Meeting Room	INTERNATIONAL NORTH	INTERNATIONAL CENTER	INTERNATIONAL SOUTH	GRAND SALONS 1 & 2
1:00 pm	**Feng Zhao** Cell Sheet Engineering of Small-Diameter Blood Vessels by Aligned Human Mesenchymal Stem Cells under Physiologically-relevant Conditions	**Julie Steen** Allograft Based Scaffolds for Meniscus Transplantation: An In Vivo Sheep Study	**Michael Cooke** Regenerative Stem Cell Strategies for Repair of Brain Damage Following Stroke	**Carlos Estrada** Stem Cells in Urology
1:15 pm	**Robert Tranquillo** Implantable Arterial Grafts from Human Fibroblasts and Fibrin using a Multi-graft Pulsed Flow-stretch Bioreactor with Noninvasive Strength Monitoring	**Chang Lee** Fibrochondrocytes Generated From hMSCs	**Vivek Mukhatyar** NT-3 for Promoting Schwann Cell Function Across Long Peripheral Nerve Gaps	**Rusty Kelley** Bioactive Renal Cells Augment Renal Function in the ZSF1 Model of Diabetic Nephropathy
1:30 pm	**Haofan Peng** Engineering a Functional Vascular Graft from Hair Follicle Derived Smooth Muscle Cells and Small Intestinal Submucosa	**Barbara Boyan** Use of FGF Isoform Incorporated Scaffolds to Test Chondrogenesis in a Critical-Size Xiphoid Cartilage Defect Model	**Xiufang Guo** Neuromuscular Junction Formation between Human Stem Cell-derived Motoneurons and Human Skeletal Muscle in a Defined System	**Liliya Yamaleyeva** Primary Human Kidney Cell Cultures Containing Erythropoietin-Producing Cells Improve Renal Injury
1:45 pm	**Matthew Webber** Nanostructures that Mimic VEGF as a Therapy for Ischemic Tissue	**Kun Ma** Variations in Matrix Composition of Fibrin/Alginate Hydrogels for Chondrogenesis of Human Bone Marrow Stromal Cells	**Thomas DeMarse** Modification of Effective Connectivity within Engineered Neuronal Networks	**Sayed-Hadi Mirmalek-Sani** In Vitro Reconstitution of Human Kidney Structures for Renal Failure
2:00 pm	**Robert Christy** A PEGylated Fibrin-Based Matrix Induce Vascularization of Human Adipose Derived Stem Cells	**Xing Zhao** Neo-Cartilage Formation Using Novel Porous Poly (vinyl Alcohol)-Fibrin Gel Hybrid for Cartilage Regeneration	**Hannah Tuinstra** Localized lentivirus delivery of BDNF and NT3 from Multiple Channel Bridges Enhances Axon Regeneration in a Rat Hemisection Spinal Cord Injury Model	**Mathias Tremp** Muscle Precursor Cells (MPCs) and Adipose-derived Stem Cells (ADSCs) for the Treatment of Bladder Voiding Dysfunction
2:15 pm	**Monica Moya** 3D In Vitro Microtissue System with Perfused Human Capillaries for Tissue Engineering	**Isaac Erickson** µCT and Mechanical Analysis of Maturation and Integrative Cartilage Repair in MSC-Seeded HA Hydrogels	**Divya Chari** Magnetic Nanoparticle (MNP) Applications for Neural Stem Cell (NSC) Transplantation Therapies	**Marielle Walraven** Tubular Constructs for Urostomy: Scaffold Preparation and In Vitro Evaluation
2:30 pm	**Break with Poster Viewing** - *Grand Ballroom*			
2:30 - 3:00 pm	**SYIS Business Meeting** - *Grand Ballroom Salon 1 & 2*			

Podium Presentations - Tuesday, December 7, 2010

Session III 3:00 - 4:30pm	LIVER TISSUE REGENERATION	MUSCULOSKELETAL TISSUE ENGINEERING	CRANIOFACIAL AND DENTAL TISSUE ENGINEERING	COMMERCIALIZATION OF REGENERATIVE MEDICINE TECHNOLOGIES (TERMIS-NA INDUSTRY COMMITTEE PANEL)
Session Chairs	**Dawn Applegate**	**Gordana Vunjak-Novakovic and Hala Zreiqat**	**Stephen Feinberg and Franklin Garcia-Godoy**	**Kiki Hellman**
Student Co-Chair		**Miguel Oliveira**		
Meeting Room	**INTERNATIONAL NORTH**	**INTERNATIONAL CENTER**	**INTERNATIONAL SOUTH**	**GRAND SALONS 1 & 2**
3:00 pm	**Stephen Badylak** A Regenerative Medicine Approach to Esophageal Reconstruction: Clinical Translation in Four Patients	**Molly Stevens** New Biomaterials-based Approaches for Musculoskeletal Engineering	**Mark Randolph** Development of an Engineered Ear Using Fibrillar Collagen Scaffold with Embedded Wire	**PANEL DISCUSSION** **Kiki Hellman, PhD** President and CEO The Hellman Group, LLC Clarksburg, Maryland Chairperson, TERMIS-NA Industry Committee **Peter Johnson, MD** Vice President, Research and Development, Avery Dennison Medical Products Division, Raleigh, North Carolina President and CEO Scintellix, LLC Raleigh, North Carolina **Sharon Presnell, PhD** Senior Vice President, Regenerative Medicine and Biology, Tengion, Inc., Winston-Salem, North Carolina **James Burns** Senior Vice President and Head, Drug and Biomaterial R&D Genzyme Corporation **Mark Van Dyke, PhD** Assistant Professor Wake Forest Institute for Regenerative Medicine Wake Forest University School of Medicine
3:15 pm	**TBD** **Liver Implants**		**Patrick Spicer** In Situ Formation of Porous Poly(methyl methacrylate) Space Maintainers for Craniofacial Complex Regeneration	
3:30 pm		**Craig Neville** Replacement Vascularized Skeletal Muscle for Craniomaxillofacial Reconstruction	**Dorothea Alexander** Jaw Periosteum-Derived Osteoprogenitor Cells	
3:45 pm	**Pedro Baptista** The Use of Whole Organ Decellularization for the Bioengineering of a Human Vascularized Live	**Dmitriy Sheyn** Stem Cell Therapy for Vertebral Bone Tissue Engineering	**Stephen Badylak** Extracellular Matrix as a Scaffold for Temporomandibular Meniscus Reconstruction following Bilateral Meniscectomy	
4:00 pm	**Hiroyuki Ijima** Cell-embedded Functional Gel-filled Scaffold Culture for Liver Tissue Engineering	**Meline N L Stölting** Impact of Patient Age or Gender on Bioengineering of Functional Muscle Tissue Using Muscle Precursor Cells	**Pedro Alvarez-Urena** PDGF-BB and Tyrosine-Derived Polycarbonate with Calcium Phosphate Scaffolds Induce Osteogenic Differentiation	
4:15 pm	**Sangwon Chung** Hepatic Progenitor Cell Functionality Maintained on Fibrous PLA Scaffolds	**Anna Mitsak** Polycaprolactone Scaffold Permeability and Time Effects on Bone Growth In Vivo	**Falk Wehrhan** Critical Size Defect Regeneration Using Cell Mediated BMP-2/4 Gene Transfer	
4:30-6 pm	**Exhibit Viewing and Poster Session II - *Grand Ballroom***			
5:30-6 pm	**TERMIS-NA Membership Business Meeting - TERMIS-NA President, Tony Mikos *Grand Ballroom Salons 1 & 2***			

Podium Presentations - Wednesday, December 8, 2010

8:00 am	**Welcome Announcement - Anthony Atala and James Yoo - *International Ballroom*** **PLENARY SPEAKER III - *Cell Sheet Engineering and Its Clinical Applications* - Teruo Okano**			
9:00 am	**Award Presentation - Mary Ann Liebert, Inc. *Outstanding Student Award: James Kretlow*** **TERMIS NA 2010 Student Poster Competition Winners will be Announced**			
9:20 am	**Coffee Break**			
Session I 9:30 - 10:45 am	**TISSUE ENGINEERING AND REGENERATIVE MEDICINE IN THE CLINIC**	**INTERNATIONAL REGULATORY HARMONIZATION**	**LARGE SCALE AUTOMATION FOR CELL THERAPY (AABB SPONSORED SESSION)**	**ADDRESSSING CHALLENGES IN REGENERATIVE MEDICINE**
Session Chairs	**Nicolas L'Heureux and Toshiharu Shinoka**	**Kevin Johnson**	**John McMannis**	**Jeffrey Borenstein and Ali Khademhosseini**
Meeting Room	**INTERNATIONAL NORTH**	**INTERNATIONAL CENTER**	**INTERNATIONALL SOUTH**	**GRAND SALONS 6 & 7**
9:30 am	**Nicolas L'Heureux** Tissue Engineering and Regenerative Medicine in the Clinic	**Judith Arcidiacono** ***9:30 - 9:50*** FDA Oversight and International Efforts in Cell and Gene Therapies	**Julie Allickson** ***9:30 - 9:50*** A Novel Adult Stem Cell Product Derived from Processed Menstrual Blood	**Jeffrey Borenstein** Microfluidics-Based Approaches for Vascularized Tissue and Organ Constructs
9:45 am	**Christopher Breuer** Investigating the Cellular and Molecular Mechanisms Underlying the Formation of Stenosis in Tissue Engineered Vascular Grafts	**Eriko Fukuda** ***9:50 - 10:10*** Regulation of Cell/tissue-based Medical Products in Japan	**Brian Newsom** ***9:50 - 10:10*** Microcarriers as an Alternative for Large Scale Expansion of Adherent Cell Types	**William Turner** Manipulation of Micro-environment Architecture for Controlling Cardiac Patch Integration
10:00 am		**Scott Burger** ***10:10 - 10:30*** Regulation of Cell and Tissue Therapy Products: Developments in Europe and Progress Toward Harmonization	**Indreshpal Kaur** ***10:10 - 10:30*** Large Scale Expansion of Activated T Cells from Peripheral Blood and Cord Blood Products Using Closed Culture Systems	**Jaehyun Kim** Adenosine Enhances Cell Survival Under Hypoxic Conditions by Downregulating Metabolic Activity
10:15 am	**Chris Centeno** Should Autologous Stem Cells be Regulated the Same as Mass Produced Drugs?			**Dror Seliktar** Stiffness Landscaping of Hydrogel Scaffolds for 3-D Cell Culture Using Microscopic Laser Photolithography
10:30 am	**Stephen Badylak** A Regenerative Medicine Approach to Esophageal Reconstruction: Clinical Translation in Four Patients	**Q & A** ***10:30 - 10:45***	**Q & A** ***10:30 - 10:45***	**Bhavna S Paratala** Toward Photoacoustic Microscopy-based Non-invasive Imaging for Tissue Engineering: In Vitro Imaging Studies of Porous Polymeric Scaffolds

Podium Presentations - Wednesday, December 8, 2010

Session II 10:45 - 12:00 pm	CANCER AND REGENERATIVE MEDICINE	FUTURE OF REGENERATIVE MEDICINE; INDUSTRY PERSPECTIVE	BIOPRESERVATION	REGENERATIVE MEDICINE AND THE DEVELOPING WORLD (PANEL)
Session Chairs	**Igor Matushansky**	**Craig Halberstadt and Kurt Eng**	**Aby J. Mathew**	**David Williams**
Student Co-Chairs		**Maxime Guillemette**		
10:45 am	**Eran Ivanir** Differentially Regulated 3-D Migration and Invasion of Neoplastic and Mesenchymal Cells in Engineered Hydrogels	**Sharon Presnell** Regenerative Medicine Industry - Is there a future?	**Aby Mathew** Improved Shelf Life of Cell and Tissue Products	**David Williams,** Wake Forest University, Panel Chair **David Kaplan,** Tufts University **Stephen Feinberg,** University of Michigan **Tom Barker,** Georgia Tech **Molly Stevens,** Imperial College, UK
11:00 am	**Meline N L Stolting** Muscle Precursor Cells Inhibit tumor Growth upon Secretion of TNF Alpha In Vitro	**John McNeish** Introduction to the Industry Perspective on Regenerative Medicine		
11:15 am	**Andrey Bryukhovestkiy** Human Precursor Cells of Hematopoiesis with Induced Apoptosis are Able to Kill 50% of Rat C6 Glioma Cells	**Joseph Amaral**	**Bumsoo Han** Cryoresponse of Fibroblast in 3D Matrices: Implication for Cryopreservation of Engineered Tissues	
11:30 am	**Michael Weiss** Influence of Adhesion on Normal and Cancerous Mammary Epithelial Cells in Three-Dimensional Culture Using Degradable Synthetic Hydrogels	**Jonathan Sackner-Bernstein**	**Alison Lawson** Cryopreservation Effects on the In Vitro and In Vivo Function of an Encapsulated Cell System	
11:45 am	**Dominic Justewicz** Characterization of Autologous Smooth Muscle Cells Following Treatment with Bladder Cancer Drugs	**Craig Halberstadt and Kurt Eng** **Q & A Session**	**Hajira Ahmad** Measuring Cryopreservation Effects on Cellular Metabolism in a Pancreatic Substitute Using 13C NMR and Isotopomer Analysis	
12:00 pm	**ADJOURNMENT**			
Noon - 6:00 pm	**TERMIS-NA NIH Grant Writing Workshop** **ORGANIZERS: James Yoo, PhD, Professor, Wake Forest Institute for Regenerative Medicine and Fei Wang, Health Scientist Administrator, NIH/NIAMS**			