2010 Summer Bioengineering Conference Student Paper Awards

B.S. Level Competition

Category	Place	Award Winner	Title	Institution
Biofluids, Biotransport, Tissue Engg & Cellular Biomechanics	1	Kyla Barr	Quantification of Abdominal Aortic Aneurysm Disease Progression Using Small Animal Magnetic Resonance Imaging	Stanford U
	2	Alina Oltean	Mechanical Properties Along the Branching Site of the Abdominal Aorta and Iliac Arteries	U of Minnesota
	3	Matthew Bockman	CFD Simulation of Flow Mixing in the Vertebrobasilar System	U of California San Diego
Solids, Design, & Rehabilitiation	1	John Moyer	Transverse Mechanical Properties of Human Lateral Meniscal Attachments	Michigan Technological U
	2	Stacy Tokar	Characterizing the Biaxial Mechanical Properties of Vaginal Maternal Adaptations During Pregnancy	U of Pittsburgh
	3T	William Barone	Viscoelastic Behavior of the Rat Uterine Cervix at Mid-Pregnancy	U of Pittsburgh
	3T	Brooklyn Rowland	Effect of Cortical Bone Thickness on the Magnitude and Classification of Hill Sachs Lesions Verses Glenoid Lesions	U of Pittsburgh

M.S. Level Competition

Category	Place	Award Winner	Title	Institution
Biofluids, Biotransport, Tissue Engg & Cellular Biomechanics	1	Kristin Miller	Effect of Preconditioning on Collagen Fiber Recruitment: Inhomogeneous Properties of Rat Supraspinatus Tendon	U of Pennsylvania
	2	William Polacheck	Interstitial Flow and Effects on Tumor Cell Migration	Massachsetts Inst of Technology
	3T	Tracy Powell	Elasticity of the Lens Capsule as Measured by Osmotic Swelling	U of Minnesota
	3T	Joseph Keyes	Quantification of the Biomechanical Differences in Wild-Type and Heterozygous TGF Beta2 Knockout Mice	U of Arizona
Solids, Design, & Rehabilitiation	1	Jeffrey Armstrong	A Generalized Cross-Shear Wear Algorithm Based on a Novel Modification to Archard's Law	Colorado School of Mines
	2	Timothy Gundert	Evaluation of Cerebral Aneurysm Stent Performance in a Subject-Specific Computational Model	Marquette U
	3	Kelli Huls	Automatic Generation of Virtual Lumbar Motion Segments for Population-Based Simulation of Lumbar Spine Biomechanics	Colorado School of Mines

2010 Summer Bioengineering Conference Student Paper Awards

Doctoral Level Competition - Podium

Category	Place	Award Winner	Title	Institution
Biofluids & Biotransport	1	Ethan Kung	In Vitro Validation of Finite Element Model of AAA Hemodynamics Incorporating Realistic Outflow Boundary Conditions	Stanford U
	2	Mohammad Azimi	Use of a Social Networking Recommendation Engine in Science and Engineering Education for Accessible Discovery, Organization and Collaboration of Research Knowledge	U of California - Berkeley
	3	Sujith Sajja	Possible Mechanism of Blast-Induced Neuronal Damage in Hippocampus May Explain Cognitive Deficits	Wayne State U
	HM	Weiguang Yang	Virtual Design for the Fontan Procedure: From Idealized to Patient Specific Models Using CFD and Derivative-Free Optimization	U of California - San Diego
	HM	Genbei Shi	Enhanced Oxygen Delivery to Liver Tissue Equivalent by Perfluorocarbon	U of North Carolina - Charlotte
	HM	Ashis Mookerjee	Gender-specific Transfer Functions Might Give More Accurate Estimates Of Central Pressure	Auckland U of Technology
Tissue & Cellular Biomechanics	1	Javad Golji	Focal Adhesion Mechanotransduction: Molecular Events Leading to Vinculin Activation	U California - Berkeley
	2	Jennifer Dolan	Differential Gene Expression of Endothelial Cells under High Wall Shear Stress and Spatial Gradients	State U pf New York - Buffalo
	3	William Ronan	Finite Element Analysis of Cytoskeletal Remodeling During Micropipette Aspiration	National U of Ireland - Galway
	HM	Julie Henkels	A Novel Biomimetic Model for Studying Mechanics of Embryonic Morphogenesis and Differentiation	Georgia Inst of Technology
	HM	Amir Shamloo	The Interplay between Biomechanical and Biochemical Factors Regulates Lumen Formation and Navigation of Endothelial Cell Sprouts	Stanford U
	HM	Hojin Kang	Effects Of Fluid Shear Stress On Endothelial Cell Invasion into Three-Dimensional Matrices	Texas A&M U

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Doctoral Level Competition - Podium

Category	Place	Award Winner	Title	Institution
Solids, Design, & Rehabilitation	1	Cathryn Peltz	Biceps Tendon Changes Along Its Length, and with Altered Loading, in the Presence of Rotator Cuff Tears in a Rat Model	U of Pennsylvania
	2	John Ashton	Functional Endoluminal Paving (FELP): Thermoforming, Biodegradation, and Mechanical Properties of a Novel Polymer Graft for Abdominal Aortic Aneurysms	U of Arizona
	3	Ryan Koppes	Force Depression in the Drosophila Jump Muscle	Rensselaer Polytechnic Inst
	HM	Dennis Anderson	Effects of Age and Speed on Peak Lower Extremity Joint Torques During Gait When Controlling Speed and Step Length	Virginia Polytechnic Inst and State U
	HM	Shaobai Wang	Lumbar Degenerative Disc Disease Increases Deformations at Cephalad Adjacent Levels In Vivo	Massachusetts General Hospital

Doctoral Level Competition - Poster

Category	Place	Award Winner	Title	Institution
Biofluids & Biotransport	1	Travis Turnbull	Detection of Fatigue Microdamage in Whole Rat Femora Using Contrast-Enhanced Micro-Computed Tomography	U of Notre Dame
	2	Diana Tabiima	Measurement of Pulmonary Impedance in Live Mice and Changes with Chronic Hypoxia	U of Wisconsin
	3	Charlotte Debbaut	From Human Liver Vascular Corrosion Cast to Electrical Analog Model of the Hepatic Blood Flow	Ghent U
Solids, Design, & Rehabilitation	1	Bo Gao	A New Scheme for Soft Tissue Artifact Compensation in Human Motion Analysis	U of Florida
	2	Julie Whitcomb	Spatial Heterogeneity of Iris Elasticity Measured by Indentation	U of Minnesota
	3	Teresa Abney	The Dominant Mechanical Interaction Between the Brain and Skull In Vivo is Sliding Arrested at Key Points of Brain-Skull Tethering	Washington U - St Louis
Tissue & Cellular Biomechanics	1	Tamara Bidone	Elastic Network Modeling of Actin Filaments	Politecnico di Torino
	2	Ding Ma	2D and 3D Morphologic Metrics Associated Intracranial Aneurysm	State U of New York - Buffalo
	3T	Brendon Baker	Engineering the Functional Maturation of Nanofiber-Based Human Meniscus Tissue	U of Pennsylvania
	3T	Min-Sun Son	Are Passaged Chondrocytes Phenotypically Similar to Meniscal Fibrochondrocytes?	Stanford U