# ORAL LISTINGS

## Thursday, October 6, 2016
## 8:00am-9:30am (OP Thursday-1)

OP-Th-1-8 **Characterization of Rodent Gait in Two Models of Osteoarthritic Pain**
B. Jacobs[1], K. Dunnigan[1], M. Pires-Fernandes[1], K. Allen[1]
[1]*University of Florida*

## Thursday, October 6, 2016
## 3:15pm-4:45pm (OP Thursday-3)

OP-Th-3-10 **Three-Dimensionally Templated Hydrogels for Peripheral Nerve Injury Repair**
C. Lacko[1], S. Porvasnik[1], M. Wall[1], A. Garcia[1], C. Rinaldi[1], C. Schmidt[1]
[1]*University of Florida*

## Friday, October 7, 2016
## 1:45pm-3:15pm (OP Friday-2)

OP-Fr-2-5 **Dendritic Cells Treated with Extracellular Indoleamine 2,3 Dioxygenase Maintain an Immature Phenotype and Suppress Antigen-specific T cell Proliferation**
E. Bracho-Sanchez[1], A. Hassanzadeh[1], M. Wallet[1] B. Keselowsky[1]
[1]*University of Florida*

## Friday, October 7, 2016
## 4:00pm-5:30pm (OP Friday-3)

OP-Fr-3-5 **A Dual-Microparticle System to Modulate Autoimmunity in an Antigen-Specific Context**
J. Stewart[1], J. Lewis[2], B. Keselowsky[1]
[1]*University of Florida,* [2]*University of California, Davis*

OP-Fr-3-2 **3D Tumor Model to Investigate Natural Killer Cell-Cancer Cell Interactions**
I. Adjei[1], G. Plumton[1], J. Djeu[2], B. Sharma[1]
[1]*University of Florida,* [2]*Moffitt Cancer Center*

OP-Fr-3-12 **Co-assembly Tags Based on Charge Complementarity (CATCH) for Installing Functional Protein Ligands Into Supramolecular Biomaterials**
D. Seroski[1], A. Restuccia[1], A. Sorrentino[1], K. Knox[1], S. Hagen[1] G. Hudalla[1]
[1]*University of Florida*

## Saturday, October 8, 2016
## 8:00am-9:30am (OP Saturday-1)

OP-Sat-1-4 **Engineering Antioxidant Nanoscale Layer-by-Layer Coatings for Islet Transplantation**
N. Abuid[1], K. Gattas-Asfura[1], E. Yang[2], M. Valdes[2], C. Stabler[1]
[1]*University of Florida,* [2]*University of Miami*

## Saturday, October 8, 2016
## 1:30pm-3:00pm (OP Saturday-2)

OP-Sat-2-3 **Mechanical Surrogates of Brain Tissue**
D. Stewart[1], A. Rubiano[1], C. Simmons[1]
[1]*University of Florida*

OP-Sat-2-16 **Quadruple Labelled Mouse to Study Tissue Response to Brain Implanted Devices**
J. Gaire[1], H. Chang Lee[1], S. Currlin[1], K. J. Otto[1]
[1]*University of Florida*

## Saturday, October 8, 2016
## 3:15pm-4:45pm (OP Saturday-3)

OP-Sat-3-8 **Dendritic Cell-Targeted Immunomodulation for Tolerance**
B. Keselowsky[1]
[1]*University of Florida*

OP-Sat-3-17 **Electrocorticographic Features of Therapeutic Deep Brain Stimulation in Tourette Syndrome**
J. Shute[1], E. Opri[1], R. Molina[1], J. Rossi[2], K. Foote[1], M. Okun[1], A. Gunduz[1]
[1]*University of Florida*

OP-Sat-3-3 **In Situ Oxygen Generation within Immunoisolating Device Improves Efficacy in Diabetic Rodent Model**
M. Coronel[1], C. Stabler[1]
[1]*University of Florida*

# POSTER & PAPER LISTINGS

## Thursday, October 6, 2016

P-Th-132 **Towards a Closed-Loop Deep Brain Stimulator for the Improved Treatment of Essential Tremor**
E. Opri[1], J. Shute[1], R. Molina[1], M. Okun[1], K. D. Foote[1], A. Gunduz[1]
[1]*University of Florida*

P-Th-133 **Closed-Loop Deep Brain Stimulation Using Wearable Sensors for the Improved Treatment of Essential Tremor**
J. Cagle[1], K. Tufekci[1], F. Perez[1], N. Patel[1], D. Zuniga[1], G. Nguyen[1], E. Opri[1], A. Gunduz[1]
[1]*University of Florida*

P-Th-135 **Towards Responsive Deep Brain Stimulation for Medically Refractory Freezing of Gait In Parkinson's Disease**
R. Molina[1], J. Shute[1], E. Opri[1], P. Rossi[1], K. Foote[1], M. Okun[1], A. Gunduz[1]
[1]*University of Florida*

P-Th-278 **Multivalent Capture of Tumor Cells Using Microfluidic Devices**
*A. Gams[1], J. Zhang[1], W. Sheng[1], Z. Hugh Fan[1]*
[1]*University of Florida*

P-Th-442 **Salmonella Detection Using Magnetic Sensors: High Sensitivity and High Throughput**
*M. Torija[2], K. Dorfman[3], L. Maldonado-Camargo[1], C. Rinaldi[1], J. Sheats[3], S. Sreevatsan[3], M. Tondra[4], P. Mueller[2]*
[1]*University of Florida,* [2]*NVE Corporation,* [3]*University of Minnesota,* [4]*Diagnostic Biosensors*

P-Th-515 **Simulation of Magnetic Particle Capture For Extracorporeal Magnetic Separation of Inflammatory Cytokines for Cardiopulmonary Bypass (CPB) Procedures**
O. Lanier[1], C. Velez[1], J. Dobson[1]
[1]*University of Florida*

P-Th-517 **Magnetic Particle Capture as a Surrogate Measure for Synovial Fluid Viscosity**
Y. Shah[1], L. Maldonado-Camargo[1], N. Patel[1], E. Yarmola[1], C. Rinaldi[1], J. Dobson[1], K. Allen[1]
[1]*University of Florida*

P-Th-593 **Increasing Modulus of Perfusion-Decellularized Kidney Organ Scaffolds to Enhance Recellularization**
A. Goloubev[2], A. Rubiano[1], A. Brown[2], E. Ross[2], C. Simmons[1], B. Willenberg[2]
[1]*University of Florida,* [2]*University of Central Florida College of Medicine*

# POSTER & PAPER LISTINGS

## Friday, October 7, 2016

P-Fri-17 **Quantitative Histological Measures of Bone and Synovium Correlate with Behavior in a Rat Model of OA**
H. Kloefkorn[1], K. Allen[1]
[1]*University of Florida*

P-Fri-25 **Hydrogels with Conditionally Active Reporters for Studying Stem Cell Chondrogenesis**
G. Plumton[1], A. Martin-Pena[1], G. Palmer[1], B. Sharma[1]
[1]*University of Florida*

P-Fri-78 **Tetramethyl Orthosilicate as a Delivery Vehicle For Anti-inflammatories to Ameliorate the Foreign Body Response Associated with Micro-device Implantation**
K. Otto[1], M. McDermott[2]
[1]*University of Florida,* [2]*Purdue University*

P-Fri-88 **Finite Element Modeling Predicts Electrophosphene Phenomena in tDCS or tACS Recipients**
A. Indahlastari[2], A. Kasinadhuni[1], M. Chauhan[2], K. Castellano[1], M. Calvin[2], G. Srinivasan[2], A. Pendharkar[2], R. Sadleir[2]
[1]*University of Florida,* [2]*Arizona State University*

P-Fri-223 **Coordinated Dynamics of RNA Splicing Speckles In The Nucleus**
Q. Zhang[1], K. Kota[2], S. Alam[1], J. Nickerson[3], R. Dickinson[1], T. Lele[1]
[1]*University of Florida,* [2]*Perkin Elmer Inc.,* [3]*University of Massachusetts Medical School*

P-Fri-257 **Nuclear Volume Expansion Induced by Cell Shape Changes During Migration**
V. Tocco[1], V. Aggarwal[1], S. Baker-Groberg[2], O. McCarty[2], R. Dickinson[1], T. Lele[1]
[1]*University of Florida,* [2]*Oregon Health & Science University*

P-Fri-280 **Detecting Silica-Coated Gold Nanostars Within Surface-Enhanced Resonance Raman Spectroscopy Mapping Via Semi-Supervised Framework Combining Feature Selection and Classification**
P. Pardalos[1], J. Pi[1], M. Fenn[2]
[1]*University of Florida,* [2]*Florida Institute of Technology*

P-Fri-311 **Astrocytic Differentiation of Human Malignant Glioblastoma U87MG Cells Induced by Porous Poly (1,8-octanediol-co-citrate) Wafers Loaded with All-trans Retinoic Acid**
T. Sanders[1], A. Webb[1]
[1]*University of Florida*

P-Fri-325 **Pancreatic Cancer Microtissues to Investigate the Mechanical Microenvironment of Tumors**
A. Rubiano[1], D. Delitto[1], S. Han[1], S. Hughes[1], C. Simmons[1]
[1]*University of Florida*

P-Fri-370 **A Novel Biphasic Vascular Graft for Engineering Small Diameter Blood Vessels**
V. Ramaswamy[1], A. Goins[1], J. Allen[1]
[1]*University of Florida*

P-Fri-480 **Poly(diol citrate) Modified Bare Metal Stents for Drug Delivery**
D. Lichlyter[1], A. Webb[1]
[1]*University of Florida*

P-Fri-501 **Establishing Design Criteria for Targeted Nanoparticle Delivery in the Joint**
S. Brown[1], B. Sharma[1]
[1]*University of Florida*

## POSTER & PAPER LISTINGS

### Saturday, October 8, 2016

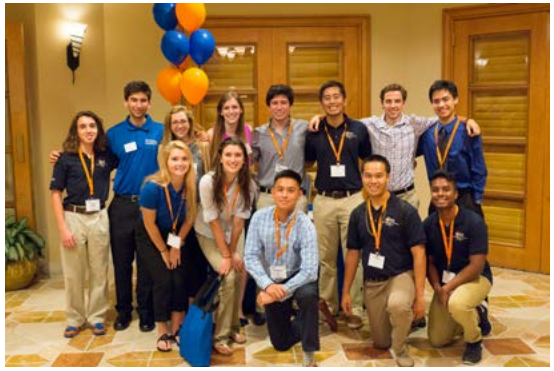
P-Sat-91 **Exploring Iron Oxide Response Under Biological Conditions Using Magnetic Particle Spectrometry**
D. Prestridge[1] , R. Dhavalikar[1], A. Bohorquez[1], N. Garraud[1], M. Unni[1], A. Chiu-Lam[1], D. Arnold[1], C. Rinaldi[1]
*[1]University of Florida*

P-Sat-237 **Biomimetic Substrates For Mechanobiology Investigations of Pancreatic Cancer**
*W. Fares[1], A. De La Pena[1], A. Rubiano[1], C. Elliott[2], C. Simmons[1]*
*[1]University of Florida, [2]Sarasota High School*

P-Sat-410 **Differential Gene Expression Of ECM Proteins and Adhesion Molecules In Tailored Polyacrylamide Gels**
Z. Weishampel[1], D. Berrie[1], A. Doty[1], S. Glover[1]
*[1]University of Florida*

P-Sat-546 **Validating an Experimental Dynamic Gait Arena for Measuring Vertical Ground Reaction Forces in Mice**
Samantha Haus[1], Emily Lakes[1], Brittany Jacobs[1], Kyle Allen[1]
*[1]University of Florida*

P-Sat-548 **Effects of Grader Skill Level on Measurement Variability**
J. Berko[1], H. Kloefkorn[1], K. Allen[1]
*[1]University of Florida*



UF UNIVERSITY of FLORIDA
J. Crayton Pruitt Family Department of Biomedical Engineering

# ENGINEERS *for* LIFE

THE J. CRAYTON PRUITT FAMILY DEPARTMENT OF BIOMEDICAL ENGINEERING AT THE UNIVERSITY OF FLORIDA IS DEDICATED TO DEVELOPING INNOVATIVE AND CLINICALLY TRANSLATABLE BIOMEDICAL TECHNOLOGIES, TRAINING FUTURE GENERATIONS OF BIOMEDICAL ENGINEERS, AND CULTIVATING LEADERS, BY NURTURING THE INTEGRATION OF ENGINEERING, SCIENCE, AND HEALTHCARE IN A COLLABORATIVE AND DYNAMIC EDUCATIONAL AND RESEARCH ENVIRONMENT.

**WE ARE POWERING THE NEW ENGINEER**

# UF BIOMEDICAL ENGINEERING BMES BROCHURE 2016

This brochure lists the papers, posters, and plenary talks presented by University of Florida faculty and students at the 2016 BMES Meeting.

UF UNIVERSITY of FLORIDA
J. Crayton Pruitt Family Department of Biomedical Engineering

***You are invited to join us at our presentations and to visit us at booth #709 to learn more about our programs.***

ENGINEERS *for* LIFE.