

ORAL LISTINGS

Thursday, October 12, 2017
8:00am-9:30am (OP Thursday-1)

[OP-Th-1-1](#) **In Vitro Platform for Characterization of Immunological Responses to Encapsulated Cells**
A. Frei¹, Y. Li², E. Yang², A. Bayer² and C. Stabler¹
¹University of Florida, ²University of Miami

[OP-Th-1-1](#) **Targeted Extracellular Indoleamine 2,3-Dioxygenase Suppresses Immune Responses In Vitro and In Vivo**
E. Bracho-Sanchez¹, A. Hassanzadeh¹, K. Y. Koenders¹, A. Restuccia¹, M. M. Fettis¹, M. A. Wallet¹, F. Rocha¹, S. M. Wallet¹, G. Hudalla¹, B. Keselowsky¹
¹University of Florida

[OP-Th-1-7](#) **In Vitro 3D System Replicates Tumor-Stroma Crosstalk In Pancreatic Cancer**
A. Rubiano¹, S. Hughes¹ and C. Simmons¹
¹University of Florida

[OP-Th-1-11](#) **Accelerated Brain Perfusion Imaging via Spatio-Temporal Super-Resolution**
Y. Xiao¹ and R. Fang¹
¹Florida International University

[OP-Th-1-11](#) **Conductivity Tensor Reconstruction using DT-MREIT In-Vivo Imaging in a Human TACS Recipient**
A. Indahlastari², M. Chauhan², A. K. Kasinadhuni¹, C. Saar², B. Mousa², K. Castellano¹, T. H Mareci¹ and R. J. Sadleir²
¹University of Florida, ²Arizona State University

[OP-Th-1-17](#) **Axonal Communication Between Cultured Hippocampal Neurons Through Microtunnels**
D. Poli³, A. Ruiz³, T. DeMarse², G. Brewer³ and B. Wheeler^{2&4}
¹University of Florida, ²University of North Carolina, ³University of California Irvine, ⁴University of California

Thursday, October 12, 2017
1:30pm-3:00pm (OP Thursday 2)

[OP-Th-2-12](#) **Engineered Galectin-1 for Immunomodulation**
M. Fettis¹ and G. Hudalla¹
¹University of Florida

Friday, October 13, 2017
8:00am-9:30am (OP Friday-1)

[OP-Fri-1-7](#) **Functionalized Immunomodulatory IL-10 Surfaces Attenuates Biomaterial Topography Activated Macrophages**
K. Jiang¹, J. Liang¹, S. Wiggins¹ and C. Stabler¹
¹University of Florida,

[OP-Fri-1-16](#) **Understanding Fiber Recruitment of Peripheral Nerves During Intrafascicular Stimulation via Computational Modeling**
E. Patrick¹, K. Otto¹, R. Bashirullah¹ and A. Gunduz²
¹University of Florida

[OP-Fri-1-17](#) **Towards Responsive Deep Brain Stimulation for Medically Refractory Freezing of Gait in Parkinson's Disease**
R. Molina¹, J. Shute¹, E. Opri¹, K. Sowalsky¹, J. Roper¹, D. Martinez-Ramirez¹, C. Hass¹, K. Foote¹, M. Okun¹ and A. Gunduz¹
¹University of Florida

[OP-Fri-1-17](#) **Closed-Loop Deep Brain Stimulation Paradigm for Tourette Syndrome**
J. Cagle¹, M. Okun¹, K. Foote¹ and A. Gunduz¹
¹University of Florida

Friday, October 13, 2017
1:15pm-2:45pm (OP Friday-2)

[OP-Fri-2-14](#) **Dynamic Deformation of the Cell Plastically Shapes the Nucleus and Amplifies Cancer Nuclear Irregularities**
V. Tocco¹, Y. Li², V. Aggarwal¹, S. Neelam¹, K. Christopher¹, J. Matthews¹, L. Paschall¹, H. Luesch¹, J. Licht¹, R. Dickinson¹ and T. Lele¹
¹University of Florida

Friday, October 13, 2017
3:30pm-5:00pm (OP Friday-3)

[OP-Fri-3-1](#) **A Novel Tri-Component Polymeric Electrospun Scaffold for Vascular Tissue Engineering**
V. Ramaswamy¹, T. Repetto¹ and J. Allen¹
¹University of Florida

[OP-Fri-3-2](#) **Self-Assembled Galectin-Enzyme Fusions for Localized Biocatalysis**
S. Farhadi¹, M. Fettis¹, E. Bracho-Sanchez¹, S. Freeman¹, B. Keselowsky¹ and G. Hudalla¹
¹University of Florida

[OP-Fri-3-8](#) **Fluidic Platform for Ex Vivo Interrogation of Pancreatic Islets**
M. Ishahak², G. Lenguito², S. Rawal², P. Buchwald², C. Stabler¹ and A. Agarwal²
¹University of Florida, ²University of Miami

[OP-Fri-3-14](#) **Magnetic Nanoparticle Relaxation Mechanism Plays a Role in Lysosomal Membrane Permeabilization**
A. Chiu-Lam¹, M. Cruz-Acuña¹ and C. Rinaldi²
¹University of Florida

Saturday, October 14, 2017
8:00pm-9:30pm (OP Saturday-1)

[OP-Sat-1-9](#) **Immunopathology and Cell Biology of the GAD65 Autoantigen in Pancreatic Islets**
E. Phelps^{1,2}, C. Cianciaruso² and S. Baekkeskov²
¹University of Florida, ²Swiss Federal Institute of Technology

[OP-Sat-1-10](#) **IL-6 Biomarker Detection in a Rat Monoiodoacetate Osteoarthritis Model using Magnetic Capture**
B.D. Partain¹, E.G. Yarmola¹, Y. Y. Shah¹, J. Figueras¹, S. Armington¹, C. Rinaldi¹, J. Dobson¹ and K. Allen¹
¹University of Florida

[OP-Sat-1-17](#) **Investigating the Role of Inflammation in the Functionality of Intracortical Devices**
J. Gaire¹, H.C. Lee², N. L. Hilborn¹, M. K. Regan¹ and K. Otto¹
¹University of Florida, ²University of Texas

[OP-Sat-1-17](#) **Electrical Evaluation Of Micro-Electrode Arrays Coated with Thin Films For Minocycline Release**
K. P. Olczak¹, M. D. McDermott^{1,2} and K. Otto¹
¹University of Florida, ²Purdue University

Saturday, October 14, 2017
1:30pm-3:00pm (OP Saturday-2)

[OP-Sat-2-1](#) **Silane-Functionalized Dendrimer for the Generation of Ultrathin Polymeric Coatings on Pancreatic Islets**
K. Gattas-Asfura¹, N. Abuid¹ and C. Stabler¹
¹University of Florida

[OP-Sat-2-6](#) **Galectin 3 as a Retention Strategy for Delivery of Proteins to Multiple Sites In Vivo**
S. Freeman¹, E. Bracho-Sanchez¹, K. Koenders¹, A. Restuccia¹, M. Fettis¹, S. Farhadi¹, G. Hudalla¹ and B. Keselowsky¹
¹University of Florida

Saturday, October 14, 2017
1:30pm-3:00pm (OP Saturday-2)

[OP-Sat-2-17](#) **In Vivo Validation of a Flexible CMOS-compatible Neural Interface**
A. Kundu¹, E. Patrick¹, A. Fahmy¹, F. Delgado¹, S. Curri¹, R. Madler¹, K. Otto¹, N. Maghari¹ and R. Bashirullah¹
¹University of Florida

[OP-Sat-3-6](#) **Monitoring Nanoparticle Stability And Mobility In Whole Blood And Tissues In Situ**
A. Bohorquez¹, M. Unni¹, A. Chiu¹, S. Belsare¹, L. Rice¹, C. Pampo¹, D. Siemann¹ and C. Rinaldi¹
¹University of Florida

POSTER & PAPER LISTINGS

Thursday, October 12, 2017

[P-Th-37](#) **Nanowarming Using Stable Magnetic Vitrification Solutions**
E. Shreteh¹, A.C. Lam¹ and C. Rinaldi¹
¹University of Florida

[P-Th-181](#) **Quantifying Forces Required to Rupture the Nuclear Membrane**
Q. Zhang¹, J. Lammerding¹ and T. P. Lele¹
¹University of Florida

[P-Th-191](#) **XY Plotting System for High Resolution, Rapid Protein Pattern Production for Cell Culture**
J. Wesley Garrett¹, D. Stewart¹ and C. Simmons¹
¹University of Florida

[P-Th-277](#) **Engineering a Myogenic Stem Cell Niche Through Super-Soft Lithography of Hydrogels**
D. Stewart¹, M. Ramanathan¹, C. Pacak¹ and C. Simmons¹
¹University of Florida

[P-Th-286](#) **3-D Physiometric Porcine ECM Hydrogels Promotes the Intra-Islet Vascular Cell Proliferation and Function of Rodent and Human Islets**
K. Jiang¹, D. Chaimov¹, J. Liang¹, S. Patel¹ and C. Stabler¹
¹University of Florida

[P-Th-364](#) **Fabrication of Biphasic Scaffold for Small Diameter Vascular Graft Applications**
A. Goins¹, V. Ramaswamy¹ and J. Allen¹
¹University of Florida

[P-Th-505](#) **The Impact of Protein Loaded Thin-film Sol-Gel on Electrical Impedance Spectroscopy and Charge Carrying Capacity**
M. McDermott^{1,2} and K. Otto¹
¹University of Florida, ²Purdue University

[P-Th-518](#) **Denoising of Local Field Potentials from Deep Leads affected by Blood Pressure Artifacts**
E. Opri¹, S. Cerneria¹, R. Molina¹, M. Okun¹, K. Foote¹ and A. Gunduz¹
¹University of Florida

[P-Th-564](#) **Effects of Tumor-Relevant Substrate Mechanics on Primary Pancreatic Cancer Cells**
J. Pineiro¹, W. Fares¹, A. Rubiano¹ and C. Simmons¹
¹University of Florida

POSTER & PAPER LISTINGS

Friday, October 13, 2017

- P-Fri-186 **Introduction of the Ex Vivo Mouse Mesometrium Culture Model for Investigating Multicellular Dynamics During Angiogenesis**
A. D. Suarez-Martinez¹, D. Kaplan¹, K. Huang¹, S. Meadows¹, S. Bierschenk², M. Sperandio², and W. L. Murfee³
¹Tulane University, ²Walter-Brendel-Centre of Experimental Medicine, Ludwig-Maximilians Universität
- P-Fri-243 **Cardiovascular Disease Prediction and Risk Factor Mining with RFMiner**
Y. Xiao¹ and R. Fang¹
¹Florida International University
- P-Fri-261 **Determining Radiation-Induced Subclinical Cardiac Toxicity in Left Sided Breast Cancer Patients using Magnetic Resonance Imaging with Tagging**
S.S. Kumar¹, A. Waler¹, J. Bradley², C. Klassen³ and W. O'Dell¹
¹University of Florida, ²UF Health Proton Therapy Institute, ³UF Health Shands Hospital
- P-Fri-287 **A Simple and Realistic Simulation Method for Low-Dose CT**
P. Liu¹ and R. Fang¹
¹Florida International University
- P-Fri-321 **Validation Of Pulmonary Vessel Sizing from 3D Medical Images**
A. Gormaley¹, D. Prida¹, S. S. Kumar¹ and W. O'Dell¹
¹University of Florida
- P-Fri-351 **Clinical Report Guided Retinal Microaneurysm Detection Using Deep Learning**
L. Dai¹, Q. Wu², B. Sheng¹, W. Jia², X. Hou² and R. Fang³
¹Shanghai Jiao Tong University, People's Republic of, ²Shanghai Jiao Tong University, Affiliated Sixth People's Hospital, ³Florida International University
- P-Fri-384 **Evaluating the Potential of Commercially Available Magnetic Nanoparticles for Hyperthermia Applications**
O. Lanier¹, O. Korotych¹, A. Monsalve¹, C. Nacea¹, Noa Grooms¹, D. Wable¹ and J. Dobson¹
¹University of Florida
- P-Fri-417 **Magnetically Triggered Drug Release from Nanoparticles**
E. Fuller¹, H. Sun¹, B. Sumerlin¹ and C. Rinaldi¹
¹University of Florida
- P-Fri-446 **Oligonucleotide Hybridized Hydrogels for Sustained Release of Small Molecule (Aptamer) Therapeutics**
N. Agrawal¹, R. Wachs¹, Y. Du², P. Allen², A. Ellington², Z. Khaing¹, and C. Schmidt¹
¹University of Florida, ²University of Texas
- P-Fri-474 **Magnetic Nanoparticles as a Clinically Accessible Biomarker Of Patient Response To Dendritic Cell Vaccines**
A. Grippin¹, E. Sayour¹, B. Wummer¹, A. Monsalve¹, J. Dobson¹ and D. Mitchell¹
¹University of Florida
- P-Fri-479 **Localized Release of Corticosteroid from Macroporous Organosilicone Beads Scaffolds**
J. Liang¹, K. Jiang¹ and C. Stabler¹
¹University of Florida

Saturday, October 14, 2017

- P-Sat-6 **Pervasive Monitoring of Patients Activity in the Intensive Care Unit**
K. Adams¹, K. Rohit Malhorta¹, S. Siegel¹, A. Davoudi¹, A. Bihorac¹ and P. Rashidi¹
¹University of Florida
- P-Sat-29 **Imidazole-Modification Enhances Nanoparticle Transport Through Cystic-Fibrosis (CF) like Mucus and Promotes Uptake into a Human CF Cell Line**
A. Jimenez¹, J. Mejias², B. Lash³, and K. Roy²
¹University of Florida ²Georgia Institute of Technology and Emory University, ³Georgia Institute of Technology
- P-Sat-62 **Nanoparticle Self-Assembly for Colloidal Gel Fabrication**
M. Guevara¹, J. Coyne² and Y. Wang²
¹University of Florida, ²The Pennsylvania State University
- P-Sat-66 **Chitosan as an Oral Phosphate Binder**
M. Dill¹, S. Smith¹ C. Batich¹
¹University of Florida
- P-Sat-89 **Pancreatic Cancer Cell Chemoresistance On Mechanically Tailored Hydrogels**
W. Fares¹, J. Pineiro¹, A. Rubiano¹, C. Elliott¹ and C. Simmons¹
¹University of Florida
- P-Sat-191 **Inter-subject Variability in Healthy TES Recipients: A Computational Study**
B. Mousa¹, A. Indahlastari¹, M. Boggess¹, C. Saar¹, K. Castellano², A. K. Kasinadhuni², M. Chauhan¹, T. H. Mareci² and R. J. Sadleir¹
¹Arizona State University, ²University of Florida
- P-Sat-321 **Validation Of Transfected C2C12 Murine Myoblast Cells With Chrimson Channelrhodopsin**
A. R. Avecilla¹, G. Pagan-Diaz², L. Grant² and R. Bashir²
¹University of Florida, ²University of Illinois Urbana-Champaign
- P-Sat-454 **A Novel Enzyme Linked Immunosorbent Assay for Magnetic Capture of the Interleukin-6 Biomarker**
J. Figueras¹, E. Yarmola¹ and K. Allen¹
¹University of Florida
- P-Sat-465 **Comparison of Particle Collection Methods Using Magnetic Capture in Rat Osteoarthritis Model**
S. L. Armington¹, E.G. Yarmola¹, Y.Y. Shah², B. D. Partain¹, and K. Allen¹
¹University of Florida
- P-Sat-499 **Electrical And Histological Characterization Along The Shank Of A Silicon Microelectrode Array**
N. L. Hilborn¹, J. Gaire¹, H. C. Lee², M. Regan¹ and K. Otto¹
¹University of Florida, ²University of Texas Southwestern Medical Center
- P-Sat-500 **Inducing Myelination in Schwann Cells Using Brief Electrical Stimulation In Vitro**
N. Bohmann¹, E. Patrick¹, C.E. Schmidt¹ and S. Mobini¹
¹University of Florida

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