THURSDAY, NOVEMBER 13th 4:00 pm DDB 110 – Keynote Address

“Optical Deconstruction of Fully-Assembled Biological Systems”

KARL DEISSEROTH, M.D., Ph.D.

PROFESSOR
D.H. CHEN PROFESSOR OF BIOENGINEERING AND OF PSYCHIATRY AND BEHAVIORAL SCIENCES
STANFORD UNIVERSITY
HOWARD HUGHES MEDICAL INSTITUTE

KEYNOTE SPEAKER
MUSC 2014 RESEARCH DAY

FRIDAY, NOVEMBER 14th – Research Presentations

POSTERS: Harper Wellness Center Gym, 8:30 am – 12:00 noon

ORALS: CHP Building A, 151-A Rutledge Ave, 2nd Floor, Rms 201 – 207
        Bioengineering Building (BE), 1st Floor, Rm 112

Schedule of Oral Sessions:

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= Break in session
# MUSC Research Day 2014 - Program

## POSTER PRESENTATIONS

**Harper Wellness Center Gym**

8:30 am - 12:00 noon

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## ORAL PRESENTATIONS

**CHP – College of Health Professions, Building-A – 2nd Floor**

**BE – Bioengineering Building, 1st Floor**

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POSTER PRESENTATIONS Harper Center Gym: 8:30 – 12:00 pm

SESSION 1: Undergraduate I

001 Assessing the Validity of Microbleed Indicators in the Medical Record, Allyson R Hill¹, Bruce Ovbiagile², Jennifer H Voeks³, Daniel T Lackland³; ¹Biology, College of Charleston, ²Neurology, MUSC, ³Neuroscience, MUSC.

002 Development and Validation of an Oxygen-dependent Model of Corneal Cross-linking, Deidra Ward¹, Rupak Glenn Hepfer², George O Waring IV³, Hai Yao²; ¹Academic Magnet High School, North Charleston, SC, ²MUSC Clemson Bioengineering Program, ³Ophthalmology, MUSC.

003 Increased Intracellular Calcium Signaling in the Prefrontal Cortex Contributes to Cocaine Sensitization, Carrie A Bailes¹, Bethany R Pavlinchak², Arthur C Riegel², William C Buchta²; ¹Biology, College of Charleston, ²Neuroscience, MUSC.

004 Histological Analysis of Adipose Tissue in the Tail of American Alligators Exposed to Tributyltin in Ovo, Nolan H Barrett¹, Melissa C Bernhard¹, Satomi Kohno², Louis J Guillette Jr.²; ¹Marine Biomedicine and Environmental Studies, College of Charleston, ²Obstetrics and Gynecology, MUSC.

005 Method Validation for the Quantification of Thyroid Hormones, Elizabeth A Dingbaum¹, Brittany Kassim², Ashley Boggs²; ¹Winona State University, MN, ²National Institute of Standards and Technology.

006 Drugged Wildlife: The Potential Impacts of Environmental Endocrine Disruptors on Reproductive Development, Melissa Y Kramer¹, Nicole A McNabb², Louis J Guillette, Jr.², Satomi S Kohno³; ¹Yeshiva University Stern College for Women, ²Marine Biology, College of Charleston, ³Obstetrics and Gynecology, MUSC.

007 Characterizing Lipofuscin and N-Retinyldiene-N-Retinylethanolamine (A2E) Accumulation in Retinal Pigment Epithelium of Murine Disease Models, Patrick M. Pallitto¹, Zsolt Ablonczy², Rosalie Crouch², Yiannis Koutalos²; ¹College of Charleston, Charleston, SC, ²Ophthalmology, MUSC.

008 Developmental Characterization of the Mitochondrial DNA Helicase Twinkle in Danio Rerio, Andrew R Wyckoff⁶, Jennifer E Bestman⁶, Jennifer J Rahn², Krista D Stackley², Sherine S L Chan²; ¹College of Charleston, ²Drug Discovery and Biomedical Sciences, MUSC.

009 RANK Ligand Induction of Autophagy in Oral Squamous Cell Carcinoma, Sashank Sakamuri¹, Yuvaraj Sambandam⁴, Azizul Haque⁵; ¹Academic Magnet High School, North Charleston, SC, ²Pediatrics, MUSC, ³Microbiology & Immunology, MUSC.

010 Nonsteroidal Anti-inflammatory Drugs Decrease Viability and Produce Morphological Aberrations in Early Chicken Development, Vaibhav Mohanty¹, Edward L Krug¹; ¹Academic Magnet High School, North Charleston, SC, ²Regenerative Medicine and Cell Biology, MUSC.

011 Cell Autonomous Requirement of BMP-2 in Endocardial Cushion Cells for Peri-Membranous Ventricular Septum Formation, Emily G Strelka¹, Travis A Hawkins¹, Thomas C Trusk², Stephen Harris³, James F Martin⁴, Bin Zhou⁴, Yiji Mishina⁴, Yukiko Sugi⁴; ¹College of Charleston, ²Regenerative Medicine and Cell Biology, MUSC, ³University of Texas Health Science Center, ⁴Baylor College of Medicine, ⁵Albert Einstein College of Medicine, ⁶University of Michigan.

012 Lumican Emerges As a Potential Regulator of Cardiomyocyte Hypertrophy Using a Developmental Approach, Lorna F Doucette¹, Loren E Dupuis², Matthew Berger¹, Samuel Feldman¹, Shukti Chakravarti³, Amy Bradshaw⁴, Christine B Kern²; ¹College of Charleston, Charleston, SC, ²Regenerative Medicine, MUSC, ³Gastroenterology, Johns Hopkins University School of Medicine, ⁴Gazes Cardiac Research Institute, MUSC.

013 The Role of BMP-2 in the Formation of Perimembranous Ventricular Septum During AV Valvuloseptal Morphogenesis, Travis A Hawkins¹, Emily Strelka¹, Thomas C Trusk², Stephen E Harris³, James F Martin⁴, Bin Zhou⁴, Yuji Mishina⁴, Yukiko Sugi⁴; ¹College of Charleston, ²Regenerative Medicine and Cell Biology, MUSC, ³University of Texas Health Science Center, ⁴Baylor College of Medicine, ⁵Albert Einstein College of Medicine, ⁶University of Michigan.
SESSION 2: Clinical-Professional-Masters I Social/Behavioral Sciences

015 Is Baseline Shoulder Flexion and Elbow Extension a Predictor of Success in the Virtual Game, Duck Duck Punch? Elizabeth A Slaughter¹, Kelly E Wolfe¹, Carleigh A Brawley¹, Patrick Dukes², Austen Hayes², Larry Hodges², Michelle L Woodbury³, ¹Health Professions, MUSC, ²School of Computing, Clemson, ³Health and Rehabilitation Science, MUSC.

016 The Relationship Between Upper Extremity Quality of Movement and Patient-Reported Hand Use And Perceived Recovery After Stroke, Kelly P Callahan¹, Emily T Jeffers¹, Michelle L Woodbury²; ¹Health Professions, MUSC, ²Health Science and Research, MUSC.

017 Could Brain Stimulation Alter Your Power Nap? An Investigation of the Potential Effect of Pre-frontal Transcranial Direct Current Stimulation (tDCS) on Sleep Propensity in an Afternoon Nap., Emily S Payton¹, Gregory L Salem², Bashar W Badran², Matthew T Reeves², Kimberly R Leslie², Mark S George²; ¹Medicine, MUSC, ²Psychiatry and Behavioral Sciences, MUSC.

018 Stroke Rehab: Is Age Just Another Number? Kylie Jeffrey¹, Blakney Adkins¹, Kylie Glessman¹, Michelle L Woodbury²; ¹Health Professions, MUSC, ²Health and Rehabilitation Science, MUSC.

019 The Forgotten Arm: Exploring What Reaching Movements Look Like After Stroke, on the Less-Affected Side, Allison Conlon Perry¹, Michelle L Woodbury²; ¹Health Professions, MUSC, ²Health and Rehabilitation Science, MUSC.

020 Exploring Upper Extremity Motor Recovery Patterns for Patients with Stroke, Jacob Satterfield ¹, Erin E Coats¹, Laura A Cramer¹, Patee Tomsic¹, Ickpyo R Hong², Laura A Stewart¹, Kelly C MacIntire¹, Caitlyn Mc Ardle¹, Craig Velozo¹; ¹Occupational Therapy, MUSC, ²Health and Rehabilitation Science, MUSC.

021 Do Maximum Shoulder Flexion and Elbow Extension During an Overhead Reaching Task Predict Self-Reported Functional Deficits in Individuals With Mild Stroke? Jonathan D Wagner¹, Adrienn J Grimsley¹, Michelle L Woodbury²; ¹Health Professions, MUSC, ²Health and Rehabilitation Science, MUSC.

022 Survey on Hepatitis B and C Knowledge and Risk Levels in Charleston Tri-County Asians, Keene G Saavedra¹, Roger L White²; ¹Pharmacy, MUSC, ²Drug Discovery and Biomedical Sciences, MUSC.

023 Epidural Cortical Stimulation 5-year Follow-up: Determining Optimal Stimulation Parameters, Thomas R Hopkins¹, Jeff E Korte², Mark S George³, Ziad H Nahas³, Nolan R Williams⁴, E. Baron Short⁴; ¹Medicine, MUSC, ²Public Health Sciences, MUSC, ³Psychiatry and Behavioral Sciences, MUSC, ⁴Psychiatry, Stanford University.

024 Investigating a Single Measurement Model Underlying Different Activity of Daily Living Instruments, Kelly MacIntire¹, Laura A Stewart¹, Caitlyn F Mc Ardle¹, Chih-Ying C Li², Laura A Cramer¹, Erin E Coats¹, Jacob R Satterfield¹, Patricia Tomsic¹, Craig Velozo¹; ¹Occupational Therapy, MUSC, ²Health and Rehabilitation Science, MUSC.

025 Effect of Ergonomic Education on Dental Students, Rachel K Mink, Kayla M Barton, Gregory A Faulk, Corbin B Gaucher, Alicia F Mau, Michael R Simmons, Mari A Sitton, Natalie M Tinsley; Occupational Therapy, MUSC.

026 The Sensory Profile of Adults with Severe Mental Illness, Charlotte Myers, Suiter Coxe, Shawn Katalinas, Kari Hellman, Nancy Carson; Occupational Therapy, MUSC.

027 Perceptions of Community Integration Reported By People with Severe Mental Illness, Molly M Higgins, Kathleen E Brannon, Marielle E McLaurin, Tara K Sweeney, Nancy E Carson; Health Professions, MUSC.

028 Changes in Age of First Diagnosis of Autism Spectrum Disorder in Children Born Between 1992 and 2000, Kimberly M Fender¹, Andrea D Boan², Catherine C Bradley², Amy P Cohen², Jane M Charles², Laura A Carpenter²; ¹Medicine, MUSC, ²Pediatrics, MUSC.
SESSION 3: Clinical-Professional-Masters II Basic/Clinical Sciences

033 An Analysis of Corneal Ultrastructure in Patients with Keratoconus Using Fourier-domain Optical Coherence Tomography, Abid T Javed1, David Tremblay2, George O Waring, IV3,3 COM, MUSC, 2Storm Eye Institute, MUSC, 3Magill Vision Center.

034 Time-Driven Activity-Based Cost Accounting Methodology Employed to Transform Vascular Interventional Radiology Service At a Large University Academic Medical Center, M A Alger1, J B Stoudenmire1, M S Guimaraes2, S Brady3, J L Waller4, K Howard5, B Whitsitt3, B L Sachs6, 1Health Administration, MUSC, 2Vascular & Interventional Radiology, MUSC, 3Performance Improvement, MUSC, 4Anesthesia and Perioperative Medicine, MUSC, 5Neurosciences & Musculoskeletal, MUSC, 6Hospital Administration & Orthopaedics, MUSC.

035 Assessing the Potential of 3D Imaging and Computer Aided Design—Computer Aided Manufacturing in Treatment of Cleft Palate Patients, Sarah Beth Ray, Miles Ware, Walter Renné; CDM, MUSC.

036 Entoptic Perimetry Screening for Choroidal Neovascularization in Age Related Macular Degeneration, Megan E Hohenberger1, Kenzo Koike2, Rupal Trivedi2, Jan Kylstra2, 1Medicine, MUSC, 2Ophthalmology, MUSC.

037 Sleep Impairment in Veterans with Comorbid PTSD and Substance Use Disorders, Kimberly A Koon, Wendy H Hopper, Frank Beylotte, Sudie Back; Clinical Neuroscience, MUSC.

038 WatchPAT Versus Polysomnography: A Meta-Analysis, Marc Philip M Camilon1, Philip Ryan M Camilon2, Shaun A Nguyen3, M Boyd Boyd Gillespie4, 1CGS, MUSC, 2Surgery, MUSC, 3Otolaryngology, MUSC.

039 Do ADHD, Depression, and Anxiety Symptom Ratings Correlate with Nicotine Dependence Severity Among Adolescents Enrolled in a Smoking Cessation Pharmacotherapy Trial? Kate C Measom1, Kevin Gray2, 1Medicine, MUSC, 2Psychiatry, MUSC.

040 The Prevalence of Celiac Disease in Patients with Liver Cirrhosis, Robert B Razick, A Reuben, D Koch; Gastroenterology, MUSC.

041 Risk Factors and Preventability in Reducing Early Hospital Readmission After Liver Transplantation, Carolyn E Rogers1, Prabhakar Baliga2, Kenneth Chavin2, Dave Tabor2, 1Medicine, MUSC, 2Medicine, Transplant Surgery, MUSC.

042 Characteristics of Emerging Adult Patients Enrolled in Diabetes Transition Program, Laura K Tumblin1, Katherine Lewis2, Remberto Paulo2, Deborah Bowlb2, 1COM, MUSC, 2Pediatric Endocrinology, MUSC.

043 Differential Effect of Race, Education, Gender and Language Discrimination on Glycemic Control in Adults with Type 2 Diabetes, D Brice Reynolds, Rebekah J Walker, Jennifer A Campbell, Leonard E Egede; Center for Health Disparities Research, MUSC.
044 Retrospective Review Comparing Crossed-screws Versus Locking Plate Fixation of Hallux Metatarsophalangeal Joint Arthrodesis, Michael G Sarson¹, Ross Taylor²; ¹MUSC, ²Orthopaedic Surgery, MUSC.

045 Kinematic Analysis of the Human Temporomandibular Joint: Modern 3D Anatomical Reconstruction Versus Traditional Mathematical Modeling. David Butts, Hai Yao; Dental Medicine, MUSC.

046 Comparative PK-PD Analysis of Avarofloxacin (JNJ-Q2) and Levofloxacin Against Common ABSSSI and CABP Pathogens, Ravi Patel, Roger White; College of Pharmacy, MUSC.

047 A Tertiary Care Hospital's Experience with Mycobacterium Marinum Over Eight Years. Report of 20 Cases, Robert J Rolfe¹, Lisa L Steed², Lauren E Richey³; ¹COM, MUSC, ²Pathology & Laboratory Medicine, MUSC, ³Infectious Disease, MUSC.

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**SESSION 4: Clinical-Professional-Masters III Basic/Clinical Sciences**

048 Pentacam and OCT Imaging Techniques in Pseudophakic Eyes of Children, Catherine B Gasper, Rupal Trivedi, M Edward Wilson; Ophthalmology, MUSC.

049 Contrast Based CTA/CTP Brain Attack Protocol May Incur Acute Kidney Injury, Nnadozie M Ezerioha¹, Jamie Folsom², Christopher Bridges¹, Wayne Feng³; ¹COM, MUSC, ²Neuroscience, MUSC.

050 Standard Duplex Criteria Overestimate the Degree of Stenosis After Eversion Carotid Endarterectomy, Travis R Benzing¹, Cameron Wilnoit², Sharee Wright³, Thomas Brothers⁴; ¹Medicine, MUSC, ²Gastroenterology & Hepatology, MUSC, ³Surgery, MUSC.

051 Diagnostic Yield of Triple-Rule-Out CTA Over Virtual Coronary CTA in Patients With Acute Chest Pain, Joseph F Craft¹, Cody Browning⁵, Stefan Baumann⁶, Matthias Renker⁷, Joseph U Schoepf²; ¹Medicine, MUSC, ²COM, MUSC, ³Radiology, MUSC.

052 Diagnostic Yield of Triple-Rule-Out CTA Over Selective Coronary CTA in Patients With Acute Chest Pain, Cody M Browning¹, Joseph Craft², Stefan Baumann³, Felix Meinel², Cane Hoffman², Matthias Renker², Joseph Schoepf²; ¹Medicine, MUSC, ²Radiology, MUSC.

053 Blood Pressure Guideline Adherence in Patients with Ischemic and Hemorrhagic Stroke in the Neuro-intensive Care Unit Setting, Guilherme B F Porto¹, Alejandro M Spiotta², Ryan T Kellogg², Edward C Jauch³; ¹Medicine, MUSC, ²Neurosurgery, MUSC, ³Emergency Medicine, MUSC.

054 Clinical Sequelae of Intra-operative Aneurysmal Ruptures, Ralitza H Peneva¹, Beau H Kalan¹, Alejandro Spiotta²; ¹Medicine, MUSC, ²Neurosurgery, MUSC.

055 Analysis of the Association Between Intra-operative Flow Rates and Post-operative Vascular Complications, Akash Naik¹, David Taber², Satish Nadig², John McGillicuddy², Charles Bratton², Prabhakar Baliga³, Kenneth Chavin²; ¹Medicine, MUSC, ²Neurosurgery, MUSC.

056 Analysis of Angiogram-Negative Pattern Hemorrhage in Patients Treated for Subarachnoid Hemorrhage, Kalan H Beau¹, Peneva Ralitza¹, Spiotta Alejandro²; ¹Medicine, MUSC, ²Radiology, MUSC.

057 The Impact of Surgical Diversion Prior to Neoadjuvant Therapy for Rectal Cancer, Brandon J Anderson¹, Elizabeth G Hill², Robert E Sweeney³, Amy E Wahlquist³, David T Marshall³, Kevin F Staveley O'Carroll³, David J Cole⁴, Ernest R Camp⁵; ¹Medicine, MUSC, ²Public Health Sciences, MUSC, ³Surgery, Mt. Sinai, ⁴Radiation Oncology, MUSC, ⁵Surgery, MUSC.

058 MicroRNA Mediated Negative Regulation of Caveolin 1 As a Biological Mechanism Driving Breast Cancer Disparities, Brooke D King¹, Qi Guo¹, Bobbie Blake⁵, Amanda C LaRue¹, Judith D Salley², Marvella E Ford³, Ashley Evans-Knowell³, Victoria J Findlay¹; ¹Pathology, MUSC, ²CU, ³SCSU, ⁴Hollings Cancer Center, MUSC.
059 Racial Disparities in Clinical Vs. Pathologic Staging for Patients Undergoing Surgery for Head and Neck Squamous Cell Carcinoma, Christopher Xiao¹, Katherine R Sterba², Amit Sood³, Kathleen C Cartmell⁴, Elizabeth Garrett-Mayer⁵, Anthony J Alberg⁶, Steven A Rosenzweig ⁷, Terry A Day⁸, ¹Otolaryngology-Head and Neck Surgery, MUSC, ²Public Health Sciences, HCC, ³Surgery, MUSC, ⁴Nursing, MUSC, ⁵Cell and Molecular Pharmacology and Experimental Therapeutics, MUSC.

060 Developmental Outcomes Following White Matter Injury To Optic Radiations in Neonates Exposed to Chorioamnionitis, Lee J Hewett¹, Denise Mulvihill², Kathryn Hope³, Andrew Barbou², Truman Brown⁴, Lakshmi Katikaneni⁵, Dorothea Jenkins⁶, ¹Medicine, MUSC, ²Radiology, MUSC, ³Neonatology, MUSC.

061 How Well Does Head Ultra Sound Predict Later Motor Delays in Premature Infants? Raegan N Furman¹, Jennie L Engel¹, Andrew Barbou², Patty Coker-Bolt¹, Dorothea Jenkins³, ¹Occupational Therapy, MUSC, ²Pediatrics, MUSC.

062 Difference in Timing to Negative Test of Cure for Chlamydia Trachomatis Infection in Pregnant and Non-pregnant Women, Florence K Brown¹, Sarah Tillman², Gweneth B Lazenby³, ¹MUSC COM, ²OB/GYN, MUSC.

063 Comparing Outcomes with the Contraceptive Implant, Implanon, in Obese Versus Normal Weight Women, Andrea Peterson¹, Amy Brown², Angela Dempsey³, Ashlyn Savage³, ¹Medicine, MUSC, ²Pharmacy, MUSC, ³OB/GYN, MUSC.

SESSION 5: Clinical-Professional-Masters IV Basic/Clinical Sciences

064 Characterization of the Metabolic Effects of Growth Hormone in the Somatotroph Insulin-Like Growth Factor-I Receptor Knockout (SIGFRKO) Mouse, Chenchen Costelloe¹, Christopher Romero², Sally Radovick², ¹Medicine, MUSC, ²Endocrinology, Johns Hopkins Medical Institute.

065 Effects of the Act-1 Peptide on Retinal Pigment Epithelial Cell Integrity in Two Mouse Models of Age-Related Macular Degeneration, Elisabeth Obert¹, Gautam Ghatnekar², Bärbel Rohrer³, ¹Neuroscience, MUSC, ²First String Therapeutics, ³Ophthalmology, MUSC.

066 Inhibition of the Complement Alternative Pathway (CAP) Ameliorates Smoke-induced Functional and Morphological Ocular Injury, Alex Woodell¹, Sarah Casey², Tucker Williamson², Carl Atkinson², Bryan Jones³, Bärbel Rohrer⁴, ¹Neurosciences, MUSC, ²Microbiology and Immunology, MUSC, ³Moran Eye Center, University of Utah, ⁴Ophthalmology, MUSC.

067 Hematopoietic Stem Cells Give Rise to Chondrocytes, Katie R Wilson¹, Ryan R Kelly¹, Amanda C LaRue², ¹Pathology, MUSC, ²Research Services, VAMC.

068 Oxidized LDL Immune Complex and Malondialdehyde LDL Immune Complex Exhibit Differential Effects on Human Macrophage Survival and Apoptosis, Kelsey D Wilson¹, Charlyne Chassereau², Gabriel Virella³, Maria Lopes-Virella³, ¹Medicine, MUSC, ²Laboratory Services, Ralph F. Johnson VAMC, ³Microbiology and Immunology, MUSC.

069 Targeted Nanotherapy Dampens MHC Expression in Human Endothelial Cells, William A Dennis¹, Ann-Marie Bromes², Suraj Dixit², Carl Atkinson³, Satish Nadig⁴, ¹Medicine, MUSC, ²Biomedical Imaging, MUSC, ³Microbiology and Immunology, MUSC, ⁴Transplant Surgery, MUSC.

070 Inflammation During Bladder Outlet Obstruction is Mediated By the NLRP3 Inflammasome, Hill M Hayden¹, Purves Todd J³, Hughes M Francis³, ¹Medicine, MUSC, ²Urology, MUSC.

071 Impaired TUG Protein Proteolysis in Insulin Resistant Adipose Tissue, Muyi Li¹, Estifanos Habtemichael², Don Li², Max Petersen², Gerald Shulman², Jonathan Bogan², ¹Medicine, MUSC, ²Yale School of Medicine.

072 The Sphingolipid Distribution of Lipoproteins, Jonathan A.B. Motts, Maria Lopes-Virella; Medicine, MUSC.
073 Inhibition of Receptor Mediated Pathways in Head and Neck Cancer, Philip T Sobash¹, Jessica A Tiedeken², Stéphane E Grauzam², Steven A Rosenzweig²; ¹Medicine, MUSC, ²Cell and Molecular Pharmacology and Experimental Therapeutics, MUSC.

074 Translational Control of Gene Expression in Cardiac Fibroblasts, Zayed A Almadidy¹, Adam W Akerman¹, Paul McDermott²; ¹Medicine, MUSC, ²Gazes Cardiac Research Institute, MUSC.

075 Shear-flow Forces Generate Ca2+ Waves in Cardiac Myocytes: Implications for Arrhythmogenesis, John A Scaringi¹, Martin Morad²; ¹Medicine, MUSC, ²Regenerative Medicine and Cell Biology, MUSC.

SESSION 6: PhD I: Years 1-2

076 Heavy Metal Analysis of Nile Crocodile Blood in Kruger National Park, South Africa, Jacqueline Bangma¹, Brittany Catron², Colleen Bryan², Stephen Long², Lou Guillette¹; ¹MBES, MUSC, ²NIST.

077 Bias and Efficiency Comparison of Methods for Analysis of Pre-Post Data, Nathaniel S O'Connell, Lin Dai, Yunyun Jiang, Jaime Speiser, Ralph Ward, Wei Wei, Rachel Carroll, Mulguta Gebregziabher; Public Health Sciences, MUSC.

078 RNA-binding Protein CELF1 Controls MARCKS Expression in Oral Cancer Cells, Mehul Z Patel¹, Reniuqa House¹, George Hussey², Howe Howe², Viswanathan Palanisamy¹; ¹Oral Health Sciences, MUSC, ²Biochemistry and Molecular Biology, MUSC.

079 Assessment of Aryl Hydrocarbon Receptor-associated Gene Expression in Alligator Mississippiensis From the Tom Yawkey Wildlife Preserve, Matthew D Hale, Benjamin P Parrott, Thomas M Galligan, Louis J Guillette; OBGYN, MUSC.

080 3,5-Diamo-1,2,4-triazole Scaffold for LSD1 Inhibition Reveals New Small Molecule Targets for Spermine Oxidase Inhibitors, Halley B Rycenga, Craig J Kutz, Steven L Holshouser, Patrick M Woster; Drug Discovery, MUSC.

081 The Impact of the N-propeptide of Collagen 1 and SPARC on Collagen Type I Morphology in the Extracellular Matrix and Inflammatory Cell Recruitment to the Periodontal Ligament, Emilie Rosset, Amy D Bradshaw; Medicine, MUSC.

082 Heart Break: Mitochondrial Dysfunction and Developmental Heart Defects, Tucker J Williamson, Jennifer J Rahn, Jennifer D Bestman, Krista D Stackley, Sherine SL Chan; Drug Discovery and Biomedical Sciences, MUSC.

083 The Role of TAK1 in Sinoatrial Node Differentiation, Yunkai Dai¹, Ann C Foley²; ¹Clemson-MUSC Bioengineering, ²Regenerative Medicine and Cell Biology, MUSC.

084 Changes in Task Demand Influence Adaptation of the Preferred Gait Pattern During Human Walking, Amanda A Herrmann¹, Jesse Dean²; ¹Health Sciences and Research, MUSC, ²Health Sciences and Research, MUSC.

085 Preliminary Investigation of the Relationship Between Subclinical Depressive Symptom Severity and Inhibitory Control in Sated Smokers and Non-smokers, Spencer J Bell, John R LeMay, Christie E Eichberg, Brett E Froeliger; Neuroscience, MUSC.

086 Vascular Amyloid Plaque Burden is Positively Correlated with Leukocyte Rolling in a Mouse Model of Alzheimer's Disease, David A Hartmann¹, Roger I Grant², Bhat R Naryan¹, Andy Y Shih¹; ¹Neuroscience, MUSC, ²Neuroscience, CoC.

087 Mouse Hearing Onset Requires the Molecular and Structural Refinement of Nodes of Ranvier in Auditory Nerve, Clarisses H Panganiban¹, Yazhi Xing¹, LaShardai N Conaway¹, Jeremy L Barth², Hainan Lang¹; ¹Pathology, MUSC, ²Regenerative Medicine and Cell Biology, MUSC.

088 Associations of Post-Stroke Depression with Subjectively Assessed Physical Activity Levels: NHANES 2011-2012, Stacey E Aaron¹, Chris M Gregory², Annie N Simpson³; ¹Health and Rehabilitation Science, MUSC, ²Health Sciences and Research, MUSC, ³Healthcare Leadership and Management, MUSC.
### SESSION 7: PhD I: Years 3+

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<td>Wei Feng, Van Horn Mark, Zouh Jing, Yao Hai</td>
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<td>Lin Dai, Michael D Sweat, Mulugeta Gebregziabher</td>
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106 **Complement Inhibition Protects Against Cigarette Smoke Induced Emphysema Development and Progression**, Sarah Stephenson, Jennifer Mulligan, Tucker Williamson, Andy Kirst, Nick Reaves, Steve Tomlinson, Carl Atkinson; Microbiology & Immunology, MUSC.

107 **Effects of Aerobic Exercise Training on Walking and Health Related Outcomes in Individuals with Incomplete Spinal Cord Injury**, Nicole D DiPiro, Aaron E Embry, Lindsay A Perry, Patrick J Morgan, James S Krause, Chris M Gregory; Health Sciences and Research, MUSC.

108 **Assessing the Prevalence of Phthalate Metabolites in a Population of Pregnant Women**, Abby M Wenzel¹, Lori Cruze², John Brock², Ramsey Unal², Roger Newman², Stephen Somerville², John Kucklick³, Louis Guillette³; Molecular and Cellular Biology & Pathobiology, MUSC, ¹Obstetrics and Gynecology, MUSC, ²National Institute of Standards and Technology.

109 **The Role of Src Family Kinases in the Suppressive Effect of Prefrontal Cortical BDNF on Cocaine Seeking**, Sarah M Barry, Jacqueline McGinty; Neuroscience, MUSC.

110 **Novel 1,2,4-triazole Scaffolds As Drug Candidates to Prevent Cardiac Ischemia-reperfusion Injury**, Craig J Kutz¹, Steven Holshouser¹, Sverre Aune¹, Pat Woster¹, Don Menick²; ¹Drug Discovery, MUSC, ²Cardiology, MUSC.

111 **Fibrosis is Promoted By Beta3 Integrin in the Pressure Overloaded Heart**, Dorea L Pleasant¹, Kamala P Sundararaj¹, Harinath Kasiganesan¹, Panneerselvem Chinnakkannu¹, Sundaravadi Balasubramanian¹, Jeffrey A Jones², Dhandapani Kuppuswamy¹; ¹Cardiology, MUSC, ²Cardiothoracic Surgery, MUSC.

112 **Embryonic Incubation Temperature Impacts the Magnitude of Sex Biased Transcription in American Alligator Hatchlings**, Jessica A Cloy-McCoy, Ben B Parrott, Louis J Guillette; Obstetrics & Gynecology, MUSC.

113 **MK2 Signaling is Essential for Aggregatibacter Actinomycetemcomitans Inflammatory-induced Bone Loss**, Bethany A Herbert, Michael S Valerio, Keith L Kirkwood; Oral Health Sciences, MUSC.

114 **Regional and Anisotropic Changes in Stromal Diffusivity Following Corneal Collagen Crosslinking with Riboflavin and UVA Light**, R Glenn Hepfer¹, Shi Changcheng¹, George O Waring IV², Hai Yao¹; ¹MUSC Clemson Bioengineering, ²Ophthalmology, MUSC.

115 **Role of the N-terminal Domain of Major Ampullate Spidroin 1 of Nephila Clavipes in Spider Silk Formation**, James H Atkinson, Mirko Hennig; Biochemistry, MUSC.

116 **Th17 Cell Engraftment is Improved By Host Lymphodepletion But Does Not Depend on IL7**, Daniel J Neitzke¹, Chrystal Paulos¹, David Cole², Mark Rubinstein²; ¹Microbiology & Immunology, MUSC, ²Surgery, MUSC.

117 **Role of 2,4-Dihydroxyquinoline (DHQ) in Pseudomonas Aeruginosa Pathogenicity**, Jordon D Gruber¹, Cameron S Miller¹, Kevin Beauchesne², Peter Moeller², Patrick Flume³, Yong-Mei Zhang¹; ¹Biochemistry and Molecular Biology, MUSC, ²NOAA, ³Pulmonology and Critical Care Medicine, MUSC.

119 Live-cell imaging to Examine Retinal Pigment Epithelial Cell Network Connectivity, Masaaki Ishii, Andrew Hunter, Bärbel Rohrer; Ophthalmology, MUSC.

120 Identifying Novel Mechanisms Regulating Expression of Inflammatory Chemokine CXCL2, Ning Lou1, Mara Lennard Richard1, Jin Yu2, Danielle Brandon1, Mark Kindy2, Zhang Xian3; 1Medicine, MUSC, 2Neurosciences, MUSC.

121 Hematopoietic Stem Cell-Derived Carcinoma-Associated Fibroblasts Are Novel Contributors to the Pro-Tumorigenic Microenvironment, Lindsay T McDonald, Amanda C LaRue; Research, Ralph H. Johnson VAMC.

122 NFAM1 Modulates Calcineurin-NFATc1 Signaling During Osteoclast Differentiation in Paget’s Disease of Bone, Yuvaraj Sambandam1, Kumaran Sundaram1, Takamitsu Saigusa2, Sudhaker Rao3, William L Ries4, Sakamuri V Reddy1; 1Pediatrics, MUSC, 2Nephrology, MUSC, 3Henry Ford Hospital, Detroit, 4Dental Medicine, MUSC.

123 Membrane-Targeted Oligoamine Antibacterials Against Drug-resistant Pathogens, Bo Wang1, Boobalan Pachaiyappan2, Michael G Schmidt3, Patrick M Woster4, Yong-Mei Zhang1; 1Biochemistry and Molecular Biology, MUSC, 2Drug Discovery and Biomedical Science, MUSC, 3Microbiology & Immunology, MUSC.

124 Biomechanical and Biochemical Characterization of Cartilage Endplate and Its Role in Disc Mechanics and Nutrition, Yongren Wu1, Yi Sun2, Sarah E Cisewski2, Nicholas Wegner3, Barton L Sachs1, Vincent D Pellegrini1, Hai Yao3; 1Orthopaedics, MUSC, 2Clemson-MUSC Bioengineering Program, 3Oral Health Sciences, MUSC.

125 Overexpression of RNA-binding Protein FXR1 Promotes the Expression of TERC RNA and Regulates Cellular Senescence in Oral Cancer Cells, Mrinmoyee Majumder, Viswanathan Palanisamy; Oral Health Sciences, MUSC.

126 The Cleavage Product of RNA Binding Protein HuR Sensitizes Oral Cancer Cells to Chemotherapy, Harinarayanan Janakiraman1, Reniqua House1, Sudha Talwar1, Robert Wilson2, Starr Hazard2, Viswanathan Palanisamy1; 1Oral Health Sciences, MUSC, 2Genomics and Bioinformatics, MUSC.

127 The Role of E-Cadherin in Regulating Organized Patterning of Sensory Epithelial Cells Within Developing Mouse Cochlea, Atul Pandey, Daisy Haque, Chandrakala Puligilla; Pathology, MUSC.

128 Kallistatin Therapy In Sepsis-Induced Mortality and Organ Injury, Pengfei Li, Zhi-Rong Yang, Lee Chao, Julie Chao; Biochemistry and Molecular Biology, MUSC.

129 Modulation of CD59 Activity Affects MAC Deposition Following Mouse Laser-Induced Choroidal Neovascularization, Gloriane W Schnabolk1, Mausumi Bandyopadhyay2, Stephen Tomlinson3, Bärbel Rohrer2; 1Research, Ralph H. Johnson VAMC, 2Ophthalmology, MUSC, 3Microbiology and Immunology, MUSC.

130 Repeated Exposure to Cocaine or Environmental Stressor Unmasks SMOCs in VTA Dopamine Neurons, Evgeniy Potapenko1, Carrie Bailes2, Arthur Riegel1; 1Neurosciences, MUSC, 2College of Charleston, Charleston, SC.

131 Degeneration of Cochlear Lateral Wall and Auditory Nerve Caused Severe Hearing Loss in NSG Mice, Yazhi Xing, Nancy Smythe, Juhong Zhu, Bradley Schulte, Hainan Lang; Pathology and Laboratory Medicine, MUSC.

132 Regulation of TGF-Beta Receptor Signaling and Cell Migration By Ceramide Metabolism, Salih Gencer1, Suriyan Ponnusamy1, Can E Senkal1, Natalia Oleinik1, Kristi L Helke2, Besim Ogretmen1; 1Biochemistry and Molecular Biology, MUSC, 2Comparative Medicine and Laboratory Animal Resources, MUSC.

133 Histone Deacetylase Inhibition Improves Cardiac Function and Prevents Adverse Tissue Remodeling Post Myocardial Infarction By Differentially Regulating the Expression of the CCN Matricellular Genes, Lillianne G Harris, Daniel J Herr, Harinath Kasiganesan, Donald R Menick; Cardiology, MUSC.
134 Noise-Attenuated Histone Acetylation Contributes to Outer Hair Cell Death, Xianren Wang, Jun Chen, Kayla Hill, Suhua Sha; Pathology, MUSC.

135 Increased Sensitivity to Noise-induced Hearing Loss By Blockade of Endogenous PI3K/Akt Signaling, Haishan Long, Jun Chen, Hu Yuan, Kayla Hill, Suhua Sha; Pathology, MUSC.

SESSION 10: Postdocs-Residents-Fellows-Staff Scientists II

136 When Should Contact Precautions (CP) Be Discontinued for Patients with Methicillin-Resistant Staphylococcus Aureus (MRSA)? Yumi Oh, Djeunou M Tchamba, Michelle Engle, Linda S Formby, Lauren E Richey, Cassandra D Salgado; Infectious Diseases, MUSC.

137 Evaluation of POCT Glucose Test Performance By Patient Care Technicians (PCT) and Registered Nurses (RN), Satya N Narla¹, Juanita Epps², Kathie Hermayer³, Pamela Arnold⁴, Yusheng Zhu⁵; ¹Pathology, MUSC, ²Laboratory Services, ³Medicine / Endocrinology, Diabetes & Medical Genetics, ⁴Medical Director's Office / Clinical Effectiveness, ⁵Pathology & Laboratory Medicine.

138 Cough and Throat Clearing; Is It GERD? Mustafa Abdul-Hussein¹, Janice Freeman², Donald Castell¹; ¹Gastroenterology and Hepatology, MUSC, ²Endoscopy, Gl Clinic, MUSC.

139 Sphincter of Oddi Manometry; Reproducibility and Effect of Sphincterotomy, Alejandro L Suarez¹, Angela Pauls², Valerie L Durkalski-Mauldin³, Peter B Cotton¹; ¹Gastroenterology, MUSC, ²Public Health Sciences, MUSC.

140 Dysphagia is Associated with Abnormal Bolus Transit and Poorly Relaxing Lower Esophageal Sphincter in Patients with Ineffective Esophageal Motility, Ala’ A Abdel Jalil, Mirjam Hiestand, Donald O Castell; Gastroenterology, MUSC.

141 Muscle Coordination During Seated Fast Reaching Movements: an Analysis From the Perspective of Motor Modules, Christian Finetto¹, Giulio Rosati², Steve Kautz³, Michelle L Woodbury³; ¹Health and Rehabilitation Science, MUSC, ²Management and Engineering, University of Padua, ³Health Science and Research, MUSC.

142 The Demographics and Clinical Parameters of a Tertiary Orthopaedic Foot and Ankle Surgery Practice, Peter H White¹, Robert E Holmes¹, William R Barfield¹, Briggs M Ahearn², Ryan K Preston², McKibbin K William¹; ¹Orthopaedics, MUSC, ²College of Medicine, MUSC.

143 Trends of Health Care Expenditure in United States Adults with Diabetes: 2002–2011, Mukoso N Ozieh¹, Kinfe Bishu², Clara E Dismuke³, Leonard E Egede²; ¹Nephrology, MUSC, ²Center for Health Disparities, MUSC, ³Ralph H. Johnson VAMC.

144 Pulmonary Nodule Movement During the Respiratory Cycle and the Potential Implication on Electromagnetic Navigation Bronchoscopy, Brian S Furukawa¹, Alexander Chen², Gerard Silvestri¹, Essam F Mekhail³, Nicholas J Pasters¹; ¹Pulmonary and Critical Care, MUSC, ²Washington University in St. Louis, ³Washington University, St. Louis MO.

145 Gravitational Effects of Prolonged Bedrest on the Brain, an MRI Study, Xun Zhu, Donna R Robert; Neuroscience, MUSC.

146 Formative Survey To Assess Factors Related To Inter ICU Transfers, Nandita R Nadig¹, Dee W Ford¹, Alice Boylan¹, Andy Goodwin¹, Jane Zapka², Kit Simpson³; ¹Pulmonary and Critical Care, MUSC, ²Public Health Sciences, MUSC, ³Healthcare Leadership and Management, MUSC.
147 Differential Tension-induced Transcriptional Activity in the Thoracic and Abdominal Aorta of Mice, Elizabeth K Nadeau¹, Robert E Stroud¹, John S Ikonomidis¹, Rupak Mukherjee¹, Jean M Ruddy¹, Jeffrey A Jones², ¹CT Surgery Research, MUSC, ²Ralph H. Johnson VAMC.

148 SNAI1 Impairs Colorectal Cancer Radiation Sensitivity Through MiR145 Repression, Katie E Hurst¹, Victoria J Findlay², Cindy Wang¹, Lourdes M Nogueira², Kevin F Staveley-O’Carroll¹, Dennis K Watson², Stephen P Ethier², Ramsay Camp¹; ¹Surgery, MUSC, ²Pathology & Laboratory Medicine, MUSC.

149 Genome-Scale SgRNA Screening to Identify Novel Resistance Genes in EGFR-targeted Therapy in Lung Cancer, Christopher M Duckworth, Hiu Wing Cheung; Pathology and Laboratory Medicine, MUSC.

150 The Effects of MDMA on Brain Reactivity to Personalized Trauma Scripts in Patients with PTSD: a Pilot Study, Oliver J Mithoefer¹, Logan T Dowdle¹, William H DeVries¹, Mark S George¹, Michael C Mithoefer², Edmund Higgins¹, Colleen A Hanlon¹; ¹Psychiatry, MUSC, ²Multidisciplinary Association for Psychedelic Studies.

151 Population-Based Analysis of Prognostic Indicators in Larynx Sarcoma, Alexandra E Serpe¹, Andrew B Baker¹, P Ryan Camilon², Shaun A Nguyen¹, Eric J Lentsch¹; ¹Otolaryngology-Head and Neck Surgery, MUSC, ²Surgery, MUSC.

152 A Novel Component From Mushroom Family Exhibits Antitumor Activity on Human Meningioma Cells Through Suppressing the Wnt Beta-Catenin Signaling Pathway, Rickey L Miller Jr, Philip Lee, Scott M Lindhorst, Abhay K Varma, William A Vandergrift III, Naren L Banik, Pierre Giglio, Arabinda Das; Neurosurgery, MUSC.

153 Perspectives in Clinical Research Ethics: Cultural Comparisons, Hannah Chimowitz¹, Teresa Atz², Andrea Boan³, Robert Sade⁴; ¹Institute of Human Values in Health Care, MUSC, ²Nursing, MUSC, ³Pediatrics, MUSC, ⁴Cardiothoracic Surgery, MUSC.
SESSION 12: Undergraduate II: 12:00 – 2:45 pm: CHP 207

12:00 - 12:15
154 Racial Disparities, Neighborhood Disadvantage, and Health Outcomes Among Persons with Spinal Cord Injury, Taylor N Hutt¹, Yue Cao², James Krause², Lee Saunders²; ¹Spelman College, ²MUSC.

12:15 - 12:30
155 Intra and Inter Variation of Vitamin D Receptor MRNA Expression in the Human Placenta, John M Gehris¹, Lori Cruze², Carol L Wagner³, Louis J Guillette²; ¹The Citadel, ²Obstetrics and Gynecology, MUSC, ³Pediatrics, MUSC.

12:30 - 12:45
156 To Crave or Not to Crave: Individual Variability in Alcohol Craving is Associated with the Efficacy of TMS As a Treatment Tool for Alcoholism, Christopher W Austelle¹, William H DeVries², Logan T Dowdle², Mark S George², Colleen A Hanlon²; ¹College of Charleston, ²Brain Stimulation Lab, MUSC.

12:45 - 1:00
157 Hematopoietic Stem Cells Contribute to Dental Pulp and Periodontal Ligament, Emily Moore¹, Amanda LaRue², Meenal Mehrotra²; ¹College of Charleston, Charleston, SC, ²Pathology, MUSC.

1:00 - 1:15
158 Pre-eclampsia Due to High Levels of Nkx2-5, Ka'Dedra A Creech¹, Hudson Sealey¹, Elizabeth G Favre², Kyu-Ho Lee³; ¹College of Charleston, ²Pathology and Laboratory Medicine, MUSC, ³Pediatrics, MUSC.

1:15 – 1:30 Break

1:30 - 1:45
159 Exploring Signaling Through TAK1 During SAN Development, Cassandra P Awgulewitsch¹, Stephanie Legros², Xavier M Doss², Yunkai Dai², Ann Foley²; ¹College of Charleston, Charleston, SC, ²Bioengineering, Clemson-MUSC.

1:45 - 2:00
160 The Role of Sphingosine 1-phosphate in Keloid Fibroblasts, Brianna M Youngblood¹, Samar Hammad², Titus Reaves²; ¹Clemson University, ²Regenerative Medicine and Cell Biology, MUSC.

2:00 - 2:15
161 Extracellular Matrix Assembly By Endothelial Cells and Fibroblasts in a Scaffold-Free, Non-Adherent Culture System, Julia K Koon¹, Christopher Drake²; ¹Clemson University, ²Regenerative Medicine & Cell Biology, MUSC.

2:15 - 2:30
162 Effects of Age on Blood Pressure in SPARC-null Mice, Chadd Clark¹, An O Van Laer², Catalin F Baicu², Amy D Bradshaw², Martine LaBerge¹, Michael R Zile²; ¹Bioengineering, Clemson University, ²Medicine, MUSC.
12:00 - 12:15

163 Vitamin D Protects Bone Mineral Density in Lactating Women and Its Effect Varies By Race/Ethnicity, Buddy Blanke\(^1\), Judy R Shary\(^2\), Kaleena B Dezsi\(^2\), Myla D Ebeling\(^2\), Elizabeth K Baker\(^1\), Michael J Abercrombie\(^1\), Carol L Wagner\(^2\); \(^1\)College of Medicine, MUSC, \(^2\)Pediatrics, MUSC.

12:15 - 12:30

164 Association of Diet, Vitamin D Status, and Ethnicity/Race on Body Composition of Preschool-Aged Children, Elizabeth K Baker\(^1\), Judy R Shary\(^2\), Myla D Ebeling\(^2\), Kaleena B Dezsi\(^2\), Michael J Abercrombie\(^1\), Buddy Blanke\(^1\), Carol L Wagner\(^2\); \(^1\)College of Medicine, MUSC, \(^2\)Pediatrics, MUSC.

12:30 - 12:45

165 Choice of Induction Immunosuppression Influences Net Benefit of Transplant in Pancreas Subcategories, Daniel J Taraskiewicz, David J Taber, Satish N Nadig, John W McGillicuddy, Kenneth D Chavin, Prabhakar K Baliga, Charles F Bratton; Transplant Surgery, MUSC.

12:45 - 1:00

166 Transversus Abdominis Plane Block Vs. Local Wound Infiltration in Laparoscopic Live Donor Nephrectomy, Emmad W Kabil\(^1\), Ebony S Clemmons\(^2\), Kenneth D Chavin\(^3\), David J Taber\(^3\), Prabhakar Baliga\(^3\); \(^1\)COM, MUSC, \(^2\)Clemson University, \(^3\)Transplant Surgery, MUSC.

1:00 - 1:15

167 A Comparison of Osteopathic and Allopathic Family Medicine Residency Programs, Lindsey C Bressler\(^1\), Louise W Gregory\(^1\), Lisa D Mims\(^2\), Peter J Carek\(^3\); \(^1\)College of Medicine, MUSC, \(^2\)Family Medicine, MUSC, \(^3\)Family Medicine, University of Florida.

1:15 - 1:30

168 Ossiculoplasty with Titanium Prostheses in Patients with Intact Stapes: Comparison of TORP Vs. PORP, Andrew B Baker, Brendan P O'Connell, Shaun A Nguyen, Paul R Lambert; Otolaryngology - Head and Neck Surgery, MUSC.

1:30 – 1:45 Break

1:45 - 2:00

169 Predictors of Perioperative Morbidity and Mortality in Endoscopic Skull Base Surgery, Caitlin C Boling\(^1\), Rodney Schlosser\(^2\), Shaun Nguyen\(^2\), Lauren Lawrence\(^2\); \(^1\)Medicine, MUSC, \(^2\)Otolaryngology, MUSC.

2:00 - 2:15

170 A Case With a 10p15.3 Deletion Illustrating the Importance of Evaluation of Familial Microcephaly, Jordan Broman-Fulks\(^1\), Michael J Lyons\(^2\), M Gisele Matheus\(^3\), Kenton R Holden\(^4\); \(^1\)COM, MUSC, \(^2\)Greenwood Genetic Center, \(^3\)Radiology, MUSC, \(^4\)Neurology and Pediatrics, MUSC.

2:15 - 2:30

171 Mammographic Detection of Breast Arterial Calcifications As an Independent Predictor of Coronary Atherosclerotic Disease in African American Women, Domnique Newallo\(^1\), Felix Meinel\(^2\), U. Joseph Schoepf\(^2\), Stefan Baumann\(^2\), Rebecca Leddy\(^1\), Christian Hamm\(^4\), Pamela B Morris\(^5\), Matthias Renker\(^2\); \(^1\)Radiology, MUSC, \(^2\)Heart and Vascular Center, MUSC, \(^3\)Mammography, MUSC, \(^4\)Kerckhoff Heart and Thorax Center, Bad Nauheim, Germany, \(^5\)Cardiology, MUSC.

2:30 - 2:45
172 Quality of Vision Assessment in Dysfunctional Lens Syndrome Using Scheimpflug Densitometry and Ocular Scatter Index, Hassieb A Din¹, George O Waring², David Tremblay²; ¹COM, MUSC, ²Ophthalmology, MUSC.

2:45 - 3:00

173 Analysis of the NICHD Vitamin D Pregnancy Cohort on a Per Protocol Vs. Intent-to-Treat Basis: The Effect of Adherence on Trial Results, Michael J Abercrombie¹, Judy R Shary², Myla D Ebeling², Kaleena B Dezsi², Buddy Blanke¹, Elizabeth K Baker¹, Carol Wagner²; ¹Medicine, MUSC, ²Pediatrics, MUSC.

SESSION 14: Clinical-Professional-Masters VI: 12:00 – 3:00: CHP 202

12:00 - 12:15

174 Cytotoxicity in Chronic Rhinosinusitis: Increased Levels of Granzyme is Associated with Sinonasal Inflammatory Disease in Peripheral Blood, James R Yawn¹, Whitney Pasquini², Catherine Roach², Rodney J Schlosser², Jennifer K Mulligan³; ¹College of Medicine, MUSC, ²Otolaryngology, MUSC.

12:15 - 12:30

175 Impact of Automated Attenuation-based Tube Voltage Selection on Radiation Dose At CT: A Study on a Global Scale, James V Spearman¹, U Joseph Schoepf¹, Alek W Krazinski¹, Carlo N De Cecco¹, Felix G Meinel²; ¹Radiology, MUSC, ²Ludwig-Maximilians-University Hospital, Munich, Germany.

12:30 - 12:45

176 MRI Features of Renal Cell Cancer Subtypes, William T Smith, Munazza Anis; Radiology, MUSC.

12:45 - 1:00

177 The Effect of Dual Accreditation on Family Medicine Residency Programs, Louise R Wannamaker¹, Lindsey C Bressler¹, Peter J Carek², Lisa D Mims³; ¹COM, MUSC, ²Community Health and Family Medicine, University of Florida, ³Family Medicine, MUSC.

1:00 - 1:15

178 Developing a Model of Screening for Type II Diabetes Mellitus in the Resource-limited Setting of Rural Tanzania, Caroline M West¹, David Ploth¹, Michael Sweat²; ¹Medicine, MUSC, ²Psychiatry and Behavioral Sciences.

1:15 - 1:30

179 Assessing the Potential of 3D Imaging and Computer Aided Design: Computer Aided Manufacturing in Treatment of Cleft Palate Patients, Miles C Ware, Sarah Beth Ray, Walter G Renne; Dental Medicine, MUSC.

1:15 – 1:30 Break

1:45 - 2:00

180 Platelets Subvert Cancer Immune-surveillance, Saleh Rachidi, Bill Wu, Michelle Nelson, Brian Riesenberg, Chrystal Paulos, Mark Rubinstein, Bei Liu, Zihai Li; Microbiology and Immunology, MUSC.

2:00 - 2:15

181 Novel Combination Therapy for Glioblastoma: Organsulfer Compounds As Radio-Chemo Sensitizers to Promote Cell Death By Histone Deacetylase Inhibition, Philip J Lee¹, Sunil Patel², Naren Banik², Pierre Giglio³, Walied A Vandergrift², Scott Lindhorst¹, Arabinda Das³; ¹Medicine, MUSC, ²Neurosurgery, MUSC, ³Medicine, Ohio State.
2:15 - 2:30

182 Enhanced Oncolytic Ability of EphA2-T-cell Engager-armed Vaccinia Virus on Hepatocellular Carcinoma, Kaileen Yeh¹, Feng Yu¹, Hua Sun², Xiao Tong Song³; ¹Medicine, MUSC, ²Pathology and Immunology, Baylor College of Medicine, ³Center for Cell and Gene Therapy, Baylor College of Medicine.

2:30 - 2:45

183 The Role of TGFbeta Signaling in Extracellular Matrix Remodeling During Valve Development, Victoria Lybrand¹, Loren Dupuis², Christine Kern²; ¹Medicine, MUSC, ²Regenerative Medicine and Cell Biology, MUSC.

2:45 - 3:00

184 Kurtosis Fractional Anisotropy: Assessment of Crossing Fibers in Adolescent Brain, Matthew C Sherrier¹, Vitria Adisetiyo², George R Glenn², Jens H Jensen², Joseph A Helpern²; ¹Medicine, MUSC, ²Center for Biomedical Imaging, MUSC.

SESSION 15: Clinical-Professional-Masters VII: 12:00 – 2:15: CHP 203

12:00 - 12:15

185 Biacore Assessment of Protein-Protein Interactions (PPI) with the OAR Domain. David P Thorup, Mary Anne Baybo, Eduardo Lopez, Michael Kern; Regenerative Medicine and Cell Biology, MUSC.

12:15 - 12:30

186 Gene Expression in Orpk Mutant Mouse Molars, Lindsay C Warren, Courtney C Haycraft; Oral Health Research, MUSC.

12:30 - 12:45

187 Biological Implications of Advanced Glycation End Products in Breast Cancer, Katherine R Walter, Victoria J Findlay, Laura M. Spruill, David P Turner; Pathology, MUSC.

12:45 - 1:00

188 MicroRNA 510 As a Predictive Marker for Response to Platinum-Based Chemotherapy in Triple Negative Breast Cancer, Qi Jin Guo¹, Jamie N Mills¹, Natalie Mason¹, Savannah Bandaurraga¹, Lourdes Nogueira¹, Rita Kramer², David P Turner¹, Victoria J Findlay¹; ¹Pathology, MUSC, ²Hematology and Oncology, MUSC.

1:00 – 1:15 Break

1:15 - 1:30

189 Soft Tissue Sarcoma- Determining the Role of Circulating Fibroblast Precursors in Promoting Metastasis, Dayvia A Laws¹, Andrew S Kraft², Lee R Leddy³, Amanda C LaRue⁴; ¹Pathology, MUSC, ²Medicine, MUSC, ³Orthopaedic Surgery, MUSC, ⁴Ralph H Johnson VAMC.

1:30 - 1:45

190 Investigation of Dental Treatment Availability and Approaches to South Carolina’s Untreated Medicaid Children, Landon S Sears, Renata Leite; Dental Medicine, MUSC.

1:45 - 2:00

191 Fatigue Characteristics of Cannulated Screws Used for SCFE Fixation, Stephen Stacey, James Mooney, William Barfield; Orthopedics, MUSC.
192 Determining the Effects of IL-10 Neutralization and TLR Agonists on Adoptive T Cell Transfer Therapy, Marshall M Diven, Michelle H Nelson, Jacob Bowers, Kinga Majchrzak, Stephanie Bailey, Chrystal M Paulos; Microbiology & Immunology, MUSC.

SESSION 16: PhD IV: Years 1-2: 12:00 – 2:45 pm: CHP 204

12:00 - 12:15

193 Psychometrics of Patient-Reported Outcomes Measurement Information System: Self-Efficacy Item Bank for Managing Daily Activities, Ickpyo Hong, Sergio Romero, Chih-Ying Li, Ann Gruber-Baldini, Lisa L Shulman, Craig M Velozo; Health and Rehabilitation Science, MUSC, Occupational Therapy, University of Florida, Epidemiology and Public Health, University of Maryland School of Medicine, Neurology, University of Maryland School of Medicine, Occupational Therapy, MUSC.

12:15 - 12:30

194 The Reality of Movement Practice: Using Virtual Reality to Improve Movement Function in Inpatient Rehabilitation, Kelly R Anderson, Patrick Dukes, Hayes Austen, Larry F Hodges, Michelle L Woodbury; Health and Rehabilitation Science, MUSC, School of Computing, Clemson University, Health Science and Research, MUSC.

12:30 - 12:45

195 Extinction Context Evokes Rapid Synaptic Potentiation Following Extinction From Cocaine, Douglas J Roberts-Wolfe, Cassandra D Gipson, Michael D Scofield, Peter W Kalivas; Neuroscience, MUSC.

12:45 - 1:00

196 One Step Closer To Patient-Specific Brain Treatments: Interleaved Transcranial Magnetic Stimulation (TMS)/fMRI to Assess the FMRI BOLD Response Before and After High Frequency Repetitive TMS Treatment, Bashar W Badran, Joseph J Taylor, Xingbao Li, Colleen Hanlon, Mark S George; Psychiatry & Behavioral Sciences, MUSC.

1:00 - 1:15

197 A Rich-club Organization of the Brain Ischemic Meta-Proteome: Understanding Stroke Pathogenesis and Therapy Using Graph Theory, Ali M Alawieh, Zahraa N Sabra, Mohammed Sabra, Stephen Tomlinson, Fadi A Zarakel; Neuroscience, MUSC, Electrical and Computer Eng., American University of Beirut, Microbiology and Immunology, MUSC.

1:15 – 1:30 Break

1:30 - 1:45

198 Late Effector Th17 Cells Remarkably Retain Their Capacity to Eliminate Late-stage Melanoma, Jacob S Bowers, Michelle H Nelson, Marshall A Diven, Kinga Majchrzak, Stefanie R Bailey, Chrystal M Paulos; Microbiology & Immunology, MUSC.

1:45 - 2:00

199 Predicting Progression From Acute Liver Injury to Acute Liver Failure Using a Machine Learning Algorithm, Jaime L Speiser, David G Koch, William M Lee, Valerie L Durkalski; Public Health Sciences, MUSC, Medicine, MUSC, Internal Medicine, UTSW.

2:00 - 2:15

200 Inhibition of FLT3 in Acute Myeloid Leukemia Reactivates Ceramide Synthase 1 Expression Promoting Lethal Autophagy, Mohammed Dany, Besim Ogretmen; Biochemistry and Molecular Biology, MUSC.
2:15 - 2:30

**201** Inhibition of Class I Histone Deacetylases At Reperfusion Attenuates Cardiac Ischemia-reperfusion Injury, Daniel J Herr, Sverre E Aune, Donald R Menick; ¹Medicine, MUSC, ²Research Service, Ralph H. Johnson VAMC.

2:30 - 2:45

**202** Development of a Self-Efficacy for Managing Symptoms Short Form, Chih-Ying Li, Sergio Romero, Ann Gruber-Baldini, Lisa M Shulman, Craig A Velozo; ¹Health and Rehabilitation Science, MUSC, ²Occupational Therapy, University of Florida, ³Epidemiology & Public Health, University of Maryland School of Medicine, ⁴Neurology, University of Maryland School of Medicine, ⁵Occupational Therapy, MUSC.

**SESSION 17: PhD V: Years 3+: 12:00 – 3:15 pm: CHP 205**

12:00 - 12:15

**203** Gp96 is Essential for Skeletal Osteoblast Homeostasis and Bone Marrow Hematopoiesis, Caroline H Wallace, Courtney Haycraft, Zihai Li; ¹Microbiology & Immunology, MUSC, ²Oral Health Sciences, MUSC.

12:15 - 12:30

**204** Unraveling the Mechanisms Behind the Potent Antitumor Activity of CD4+CD26high T Cells in Adoptive Cell Therapy, Stefanie R Bailey, Michelle H Nelson, Jacob S Bowers, Marshall A Diven, Kinga Majchrzak, Chrystal M Paulos; Microbiology & Immunology, MUSC.

12:30 - 12:45

**205** Targeted Complement Inhibition Improves Recovery in Murine Spinal Cord Injury Model, Aarti Narang, Fei Qiao, Lixia Zhang, Xiaofeng Yang, Michael Holers, Liudmila Kulik, Zhu Hong, Stephen Tomlinson; ¹Microbiology and Immunology, MUSC, ²Medicine and Immunology, University of Colorado.

12:45 - 1:00

**206** Multi-State Models for Analysis of Modified Rankin Scale in Acute Stroke Trials: A New Approach with a Twist, Christy N Cassarly, Yuko Y Palesch, Renee L Martin; Public Health Sciences, MUSC.

1:00 - 1:15

**207** MicroRNA-133a Regulates Effects of Membrane Type-1 Matrix Metalloproteinase on Cellular Phenotype and Thoracic Aortic Aneurysm Formation, Adam W Akerman, Robert E Stroud, Franklin N Adam, Rupak Mukherjee, John S Ikonomidis, Jeffrey A Jones; ¹Cardiothoracic Surgery Research, MUSC, ²Surgery Research, MUSC, ³Ralph H Johnson VA Medical Center.

1:15 - 1:30

**208** Age-related Changes in the Structure and Composition of the Thoracic Aorta, Jason B Wheeler, Rupak Mukherjee, Robert E Stroud, John S Ikonomidis, Jeffrey A Jones; Cardiothoracic Surgery and Research, MUSC.

1:30 – 1:45 Break

1:45 - 2:00

**209** Nanoparticle Estrogen Elicits Rapid Anti-inflammatory Effects in Acute Rat Spinal Cord Injury, April A Cox, Abhay Varma, Naren Banik; ¹Neuroscience, MUSC, ²Neurosurgery, MUSC, ³Neurosurgery, MUSC.
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<td>200-205</td>
<td>Pilot Project: Lipidomic Analysis of Eicosanoid Metabolites in Adipose Tissue of Pansteatitis-affected Mozambique Tilapia From Loskop Dam, South Africa</td>
<td>Theresa M Cantu, John A Bowden, Matthew P Guillette, Hannes Botha, Louis J Guillette</td>
<td>OBGYN, MUSC, Environmental Chemical Sciences Group, NIST, Mpumalanga Parks, South Africa</td>
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<td>206-210</td>
<td>In-Silico Design and Synthesis of Novel, Potent, LSD1 Inhibitors As Efficacious Agents in Pancreatic Cancer</td>
<td>Steven L Holshouser, Yuri K Peterson, Patrick M Woster</td>
<td>Drug Discovery, MUSC</td>
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<td>211-215</td>
<td>Identification of Non-β-lactam Inhibitors Targeting Penicillin-binding Protein 3 of Pseudomonas Aeruginosa</td>
<td>Cameron S Miller, Alena Fedarovich, Christopher Davies, Yong-Mei Zhang</td>
<td>Biochemistry and Molecular Biology, MUSC</td>
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<td>216-220</td>
<td>Phosphorylation Dynamics of PTH Receptor Signaling In Osteoblasts</td>
<td>Grace R Williams, Mary N Berkaw, Jennifer R Bethard, Louis M Luttrell, Lauren E Ball</td>
<td>Pharmacology, MUSC, Endocrinology, MUSC</td>
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<td>221-225</td>
<td>The Association Between Family History of Cancer and Risk of Non-Melanoma Skin Cancer Plus Other Malignancies</td>
<td>James B Small, Catherine Staples, David Perry, Richard Marchell, Bruce Thiers, Anthony Alberg</td>
<td>Health Sciences, MUSC</td>
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**SESSION 18: PhD VI: Years 3+: 12:00 – 2:45 pm: BE 112**

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<td>226-230</td>
<td>Modulation of NK Anti-Tumor Immunity By NKG2D Ligands</td>
<td>Fahmin Basher, Shengjun Lu, Gang Xiao, Jinyu Zhang, John Jarzen, Daniel Neitzke, Mark Rubinstein, Jennifer Wu</td>
<td>Microbiology &amp; Immunology, MUSC</td>
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<td>236-240</td>
<td>Dual Peptide-Mediated Targeted-Delivery of SiRNAs Into Oral Cancer Cells</td>
<td>Angela A Alexander-Bryant, Haiwen Zhang, Liliana P Cantini, Robert M Sansevere, Anca Dumitriu, Andrew Jakymiw</td>
<td>Oral Health Sciences, MUSC</td>
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<td>241-245</td>
<td>Human Papillomavirus and Regulation of Ceramide-mediated Mitophagy in Head and Neck Cancer</td>
<td>Raquela J Thomas, Besim Ogretmen</td>
<td>Biochemistry and Molecular Biology, MUSC</td>
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<td>246-250</td>
<td>Sphingosine Kinase 2 Inhibition Using ABC294640 Synergizes with Gemcitabine Via P21-Mediated Suppression of E2F in Pancreatic Cancer</td>
<td>Clayton S Lewis, Christina Voelkel-Johnson, Charles D Smith</td>
<td>Drug Discovery &amp; Pharmaceutical Sciences, MUSC, Microbiology &amp; Immunology, MUSC, Apogee Biotechnology Corporation, Hummelstown, PA</td>
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1:15 – 1:30 Break
1:30 - 1:45

220 Adoptive Transfer of IL-7 Responsive CD8+ T Cells Reduces the Lymphodepletion Intensity Required for Optimal Tumor Control, C Bryce Johnson¹, Bennett R May¹, Mark P Rubinstein¹, David J Cole²; ¹Microbiology and Immunology, MUSC, ²Surgery, MUSC.

1:45 - 2:00

221 Culturing T Cells in N-Acetylcysteine Protects From Activation Induced Cell Death and Enhances Killing of Melanoma Cells in Vitro, Matthew J Scheffel¹, Shikhar Mehrotra², Christina Voelkel-Johnson¹; ¹Microbiology & Immunology, MUSC, ²Surgery, MUSC.

2:00 - 2:15

222 Absence of Hormone Responsive Estrogen Receptor Alpha Reduces the Activation of Plasmacytoid Dendritic Cells in Lupus Prone Mice, Jennifer L Scott¹, Melissa Cunningham², Osama Naga³, Jena Wirth⁴, Gary Gilkeson²; ¹Microbiology and Immunology, MUSC, ²Rheumatology, Medicine, MUSC.

2:15 - 2:30

223 HDAC2 Regulates MiR-133a Expression in Left Ventricular Pressure Overload Hypertrophy, Ludivine Renaud¹, Lilianne G Harris¹, Jeffrey A Jones², Harinath Kasiganesan¹, Catalin F Baicu¹, An Van Laer¹, Michael R Zile³, Donald R Menick³; ¹Cardiology, MUSC, ²Cardiothoracic Surgery, MUSC, ³Ralph H. Johnson VA Medical Center.

2:30 - 2:45

224 Beta-arrestin2 Intramolecular BRET Conformational Biosensors Correlate with GPCR-arrestin Complex Avidity, Erik G Strungs¹, Mi-Hye Lee², Louis M Luttrell²; ¹MCBP, MUSC, ²Medicine, MUSC.

SESSION 19: Postdocs-Residents-Fellows III: 12:00 – 3:15 pm: CHP 206

12:00 - 12:15

225 TranQuill Sling Snoreplasty for Snoring and Mild Obstructive Sleep Apnea: A Single Arm, Pilot Study for Safety and Effectiveness, Alexander W Murphey, Colin W Fuller, Marc Camilon, Shaun A Nguyen, M Boyd Gillespie; Otolaryngology, MUSC.

12:15 - 12:30

226 Functional Outcomes of Gastrocnemius Recession for Isolated Gastrocnemius and Gastrocnemius-Soleus Contractures: Midterm Results, Cory A Messerschmidt, Anuj P Netto, William R Barfield, William K McKibbin; Orthopaedic Surgery, MUSC.

12:30 - 12:45

227 Patient Attitudes Toward Local Anesthesia With or Without Sedation for Minor Hand Procedures, Seth H Bowman¹, Taylor A Horst², Kyle P Kokko¹, Eric W Angermeier¹; ¹Orthopedics, MUSC, ²Orthopedics, Harvard.

12:45 - 1:00

228 Optimal Treatment of Malignant Long Bone Fracture: Influence of Method of Repair And External Beam Irradiation on the Pathway and Efficacy of Fracture Healing, Robert E Holmes¹, E Lex Hanna¹, Yongren Wu¹, William R Barfield¹, Joseph Stains², Vincent D Pellegrini¹; ¹Orthopaedics, MUSC, ²Orthopaedics, University of Maryland.

1:00 - 1:15

229 Cardiac Overexpression of Membrane Type-I Matrix Metalloproteinase Causes Left Ventricular Remodeling and Pump Dysfunction in Peripartum Cardiomyopathy, Adam N Franklin¹, Risha K Patel², Sarah L Lieser³, Adam W Ackerman¹, Robert E Stroud², Jeffrey A Jones², John S Ikonomidis², Rupak Mukherjee²; ¹General Surgery, MUSC, ²Cardiothoracic Surgery, MUSC.
1:15 - 1:30

230 Distinct Roles of Three Acyl Carrier Proteins in Pseudomonas Aeruginosa, Wei Chen, Jordon Dale Gruber, Bo Wang, Stuart Parnham, Yong-Mei Zhang; Biochemistry, MUSC.

1:30 – 1:45 Break

1:45 - 2:00

231 Endothelial Progenitor Cells Improve Endothelial Function Through Exosome Derived Mirna; Implications of Mir-126 in Sepsis, Changrun Guo¹, Hongkuan Fan¹, Andrew Goodwin², Sarah Ashton¹, Shuwen Guan¹, Perry V. Halushka², Basilia Zingarelli³, James A. Cook¹; ¹Neurosciences, MUSC, ²Allergy & Sleep Medicine, MUSC, ³Graduate Studies, MUSC, ⁴Critical Care Medicine, CCHMC.

2:00 - 2:15

232 Anti-tumor T Cell Immunotherapy: The Flip-side of P53, Krishnamurthy Thyagarajan¹, Anirban Banerjee¹, Shilpak Chatterjee¹, Myroslawa Soloshchenko¹, Pravin Kesarwani¹, Mark P Rubinstein¹, Michael I Nishimura², Shikhar Mehrotra¹; ¹Surgery, MUSC, ²Surgery, Loyola University.

2:15 - 2:30

233 Increasing Th1 Phenotype in Th17 Cells Improves Anti-Tumor T Cells Function, Shilpak Chatterjee¹, Pravin Kesarwani¹, Myroslawa Soloshchenko¹, Jianing Fu², Ningfei An³, Jin H Song³, Chrystal M Paulos², Shikhar Mehrotra¹; ¹Surgery, MUSC, ²Microbiology & Immunology, MUSC, ³Biochemistry & Molecular Biology, MUSC.

2:30 - 2:45

234 Antigen Induced Cell Death May Occur Due to Programmed Necrosis in CD8+ Effector T Cells, Pravin Kesarwani¹, Radhika Gudi¹, Pat Simms², Michael I Nishimura², Shikhar Mehrotra¹; ¹Surgery, MUSC, ²Surgery, Loyola University.

2:45 - 3:00

235 The Inducible Costimulator Augments Tc17 Cells Responses to Self and Tumor Tissue, Michelle H Nelson¹, Sreenath Kundimi¹, Jake Bowers¹, Carolyn Rogers¹, Logan Huff¹, Kristina Schwartz¹, Thyagarajan Krishnamurthy², Chrystal Paulos³; ¹Microbiology and Immunology, MUSC, ²Surgery, MUSC.

3:00 - 3:15

236 The Fli-1 Transcription Factor Regulates the Expression of Granulocyte Colony Stimulating Factor (GCSF) and Plays a Critical Role in the Pathogenesis of Systemic Lupus Erythematosus, Mara L Lennard Richard, Danielle Brandon, Shuzo Sato, Xian K Zhang; Medicine, MUSC.