

## Schedule

### Research and Creative Achievement Week (RCAW) 2023

Wednesday, April 5, 2023

Graduate Student and Postdoctoral Scholar Day

#### Graduate Student and Postdoctoral Scholar Podium Presentations

##### MSC 249 | Community Engagement, Diversity, Equity, and Inclusion, Education 9:00 AM – 11:00 AM

- GPP19 9:00-9:15 Castle Island Community Initiative: Increasing Public Awareness of and Engagement with Isolated Cultural and Environmental Resources in Washington, NC, Lindsay Myers Wentzel
- GPP20 9:15-9:30 MMIWG2: Rhetorical Strategies for Awareness, Change, and Reclamation, Rocky Elizabeth Patacsil
- GPP21 9:30-9:45 Intersecting Rhetorical Velocity & Antiracism as Strategies for the Creation of University Crime Notifications under the Clery Act, Jason Lee Sugg
- GPP22 9:45-10:00 A survey of a co-evolutionary review \_strategy for writing center exit forms/session notes, Steven Andrew Amador
- GPP23 10:00-10:15 Public education of monitoring and maintaining local waterways through participation in the Earth Echo Water Challenge, Emma Teed
- GPP24 10:15-10:30 Does Entrepreneurship Education Impact Undergraduate Interest, Grit, Self-Efficacy, or Retention in Biology?, Elliot Weinthal
- GPP25 10:30-10:45 Domestic Immersion-Based Learning: Preparing Students for a Global Workforce, Bethany Leigh Martin
- GPP26 10:45-11:00 Identifying and Applying Sound Design Principles for Multimodal Content Creation: Analyzing Professional Content Creators' Adobe Instructional Videos, Yvonne Kao

##### MSC 253 | Biomedical Sciences

9:00 AM - 10:30 AM

- GPP01 9:00-9:15 Cox6a2 in skeletal muscle: a marker of and therapeutic target for chronic limb threatening ischemia, Makenzie G. Kolasa, Emma J. Goldberg, Zoë S. Terwilliger, Reema Karnekar, Thomas D. Green, Ananya V. Pentakota, Feifei Li, Dean J. Yamaguchi, Kelsey Fisher-Wellman, Espen E. Spangenburg, Joseph M. McClung
- GPP02 9:15-9:30 Postural Control Following COVID-19 Infection: Pilot Data, Brittany Trotter; Kendall Nelson; Delaney Brumback; Sydney Nestor; Dr. Nicholas P. Murray
- GPP03 9:30-9:45 Net Charge Distributions from High Energy Heavy Ion Collisions, Mason Alexander Ross
- GPP04 9:45-10:00 CRISPR/Cas9-mediated deletion of FGF Receptor 1 in AgRP neurons results in obesity and impaired glucose metabolism, Daniel Shookster, Hu Huang
- GPP05 10:00-10:15 pH-sensing G protein-coupled receptor GPR68 inhibits proliferation and migration of vascular smooth muscle cells, Madison D. Williams, Joshua S. Morgan, Michael T. Bullock, Cindy Kukoly, David A. Tulis
- GPP06 10:15-10:30 GammaTile Brachytherapy with 5-Aminolevulinic Acid Fluorescence-Guided Resection in an Adolescent with High Grade Glioma, Julian Gordon, Melisa Pasli, Cathleen Cook, Rainor Connor, Andrew Ju, Stuart Lee, Kathleen Knudson, Matthew Peach

**MSC 200 | Human Health****9:00 AM – 10:00 AM**

- GPP48 9:00-9:15 Exercise During Pregnancy Influences Offspring Health Biomarkers, Alex Claiborne PhD
- GPP49 9:15-9:30 Beliefs About and Attitudes Towards Menstruation Among American Youths and Their Suggestions to Improve Early Menstrual Communication, Insha Pun
- GPP50 9:30-9:45 Utility of screening for Adverse Childhood Experiences (ACEs) in adult primary healthcare settings: A Systematic Review, Betul Kucukardali Cansever, Stephanie Ann Bridgland
- GPP51 9:45-10:00 Effect Of Load Carriage on Patellofemoral Joint Stress in Physically Active Young Females, Ankur Padhye, Stacey Meardon, Junfei Tong, Jaques Reifman, and John Willson

**MSC 200 | Natural Sciences****10:15 AM – 11:45**

- GPP67 10:15-10:30 Tradeoffs between phenology and geography constraints in response to environmental changes in the Eastern Pacific, Katherine E. Dale
- GPP68 10:30-10:45 Monitoring breeding Black Rails in North Carolina Game Lands to evaluate the effects of prescribed burns on occupancy, Bailey A Kephart
- GPP69 10:45-11:00 Modeling the Impact of Container Geometry on the Uniformity of Dose in Irradiation Calibration, Marcus Snedeker
- GPP70 11:00-11:15 Using environmental DNA (eDNA) to monitor river herring movement within the lower Roanoke River Basin Chase G Spicer, Cammy Bailey, Will, Sara Roozbehi, Aaron J. McCall, Patrick Harris, Brian Boutin, Julie DeMeester, Roger A. Rulifson, Erin K. Field
- GPP71 11:15-11:30 Can a native mud crab exploit low salinity refugia to escape an invasive body snatching parasite?, Haley Dawn Hagemeyer, Carter Stancil
- GPP72 11:30-11:45 Effects of Productivity on Grassland Community Structures Across Spatial and Temporal Scales, Jasper Leavitt

**MSC 253 | Fine Arts, Visual Art, and Design****10:45 AM – 12:00 PM**

- GPP38 10:45-11:00 Material Translations, Emily Booker
- GPP39 11:00-11:15 Doodles From the Noodle: The process of translating intuitive drawing into the third dimension, Charles Randolph Shotton
- GPP40 11:15-11:30 Assembly Required: The Queering Principles of Collage and Science-Fiction, Anthony Naimo
- GPP41 11:30-11:45 River Rat, Morgan Williams Zichettella
- GPP42 11:45-12:00 Beyond the Folds: Emergent Properties in Paper, John Cannon Rhodes-Pruitt

**MSC 249 | Biomedical Sciences****11:15 AM - 12:45 PM**

- GPP07 11:15-11:30 Silencer/Counter-Silencer Interactions Coordinate Virulence Gene Expression in *Brucella* spp.—Role of Zn-Finger Protein MucR as an H-NS-like Gene Regulator, Ian S. Barton, Joshua E. Pitzer, Connor B. Cribb, Daniel W. Martin, Ilaria Baglivo, Zhongqing Ren, Xindan Wang, and R. Martin Roop II
- GPP08 11:30-11:45 Elucidating the conjoined regulation of the *Chkb-Cpt1b* locus in the development of the eutherian brown adipocyte phenotype, Jonathan Berkuta, Bhavin Patel, Dr. Fanrong Yao, Dr. Brian Shewchuk
- GPP09 11:45-12:00 Sperm Information Games: Rethinking Sperm Physiology Through the Lens of the Reproductive Microenvironment, Benjamin Brisard, Debajit Bhowmick, William J. Miller, Stephanie Stewart, Ethan Carrow, Logan Harrison, Bethany Siefferman, Chelsea Dennis, Paul Vos, Nathan Hudson, P., Cameron A. Schmidt
- GPP10 12:00-12:15 Social regulation of the A11 Dopaminergic Region in Zebrafish (*Danio rerio*), Faith K Heagy, Katie N Clements, Miranda C Setneska, Elena Blain, Fadi A Issa

- GPP11 12:15-12:30 Biochemical and HDX Studies of the SNP Y649C in Human Platelet 12-Lipoxygenase Linked to a Bleeding Disorder, Rachel Lee Signorelli
- GPP12 12:30-12:45 Multi-Technique Determination of Fibrin Fiber Diameter, Heather Ann Belcher

### MSC 253 | Fine Arts, Visual Art, and Design

12:15 PM – 1:30 PM

- GPP43 12:15-12:30 Ceramics, Glaze, and Plaster Molds, Nicholas Ryan Fowler
- GPP44 12:30-12:45 Nature, Heart, Life: A Study of the Life and Works of Alma Mahler, Jordan Virginia-Mae Cartrette
- GPP45 12:45-1:00 A Shift in Process II: Non-Traditional Painting Applications with Integrated Technology, Christopher Michael Zidek
- GPP46 1:00-1:15 Exploring the Potential of Educational Games in Graphic Design Education: Creating Engaging User Interfaces and User Experiences, Amal Abdelazeem, Abdelsalam Abdalla
- GPP47 1:15-1:30 Implementing Letterpress Printing in the Design of Information, Lee Turner

### MSC 200 | Humanities and Social Sciences 12:00 PM - 1:15 PM

- GPP57 12:00-12:15 The Negotiation is the Game: How TRPGs influence player agency through document design, Kasen Christensen
- GPP58 12:15-12:30 Consubstantiality In The Legal Profession, Michael Gordon Byrd
- GPP59 12:30-12:45 Optics of Implication: Rhetorical Performance in Zoom Quarterly Earnings Webinar, Sarah Bess McCullouch
- GPP60 12:45-1:00 The Return of what? Coherence Issues in ECU's Return of Pirate Nation Covid Resources, Nicole Elizabeth Allen
- GPP61 1:00-1:15 Speech Directed toward Older Adults, Rose Baker, Catherine Nobles, Heidi Reis, Susan C. Bobb, & Kathrin Rothermich

### MSC 249 | Biomedical Sciences 1:00 PM - 2:30 PM

- GPP13 1:00-1:15 Defining mechanisms underlying tissue fragility in AEC, Maddison N. Salois
- GPP14 1:15-1:30 Analysis of Different Types of Bracketing and Their Ability to Track Lung Tumor Motion, Wesley Andrew Belcher
- GPP15 1:30-1:45 The Effects and Mechanisms of Lactate and Protons on the Human Umbilical Vein Endothelial (HUVEC) and Murine Melanoma (B16F10) Cells' Migration, Adhesion, and Attachment, Fatema B. Salem and Li V. Yang
- GPP16 1:45-2:00 Confocal imaging and quantitative analysis of 3D morphology of human neutrophils, Lillie Dawn Huffman
- GPP17 2:00-2:15 Oligomannose N-glycans Promote Neuroblastoma Progression, Adam Burch, Kristen Hall, Cody Hatchett, Ruth Schwalbe
- GPP18 2:15-2:30 ATP synthase reversal supports oxidative metabolism in AML, James T. Hagen, Mclane Montgomery, Debijit Bhowmick, Darla Liles, Myles C. Cabot, Cameron Schmidt, Tonya Zeczycki, and Kelsey H. Fisher-Wellman

### MSC 253 | Engineering, Technology, and Computer Science 2:00 PM – 3:15 PM

- GPP27 2:00-2:15 Using Unmanned Aircraft Systems For Construction Verification, Volume Calculation, and Field Inspection, Andres Leonardo Acero Molina
- GPP28 2:15-2:30 Computational Modeling of Arteriovenous Fistula Hemodynamics in Pulmonary Hypertension Patients, Kaitlin Southern Fatehmeh Bahmani, Stephanie George, Veeranna Maddipati
- GPP29 2:30-2:45 Global Health Technology Project [Imaging the Source of Intelligence and Creativity], Babatunde I Falohun
- GPP30 2:45-3:00 Automatic Brain Tumor Classification, Ekaterina Vilkomir, Tara Gill, Jerrica Deloatch

GPP31 3:00-3:15 Workflow Automation for Water Resource Modeling and Forecasting, Colby Lee Sawyer, Ciprian Popoviciu

### **MSC 200 | Humanities and Social Sciences 1:30 PM – 2:45 PM**

- GPP62 1:30-1:45 Impact of Buyout Programs on Land Use Patterns in the Special Flood Hazard Area of Pitt County, North Carolina, Adeniji, K.N., Mukherji, A.
- GPP63 1:45-2:00 The future of wastewater in coastal areas: linking socio-economic and natural systems using Agent-based modeling, Kyra Selina Hagge
- GPP64 2:00-2:15 Utilizing the Calm Before the Storm: An Exploration of Disaster Mitigation in Princeville, North Carolina, Alexandra Paige Stevenson
- GPP65 2:15-2:30 Preserving the Apex: A Shark Conservation Campaign, Katelyn Francis
- GPP66 2:30-2:45 Farm Animal-Assisted Therapy for Individuals with Autism Spectrum Disorder: Parent and Caregiver Perspectives, Mackenzie Paige Dolecheck

### **MSC 249 | Fine Arts, Visual Art, and Design 2:45 PM - 4:15 PM**

- GPP32 2:45-3:00 The Grotesque, Haley Lynn Mcelroy
- GPP33 3:00-3:15 Portraiture: An Artistic Representation through Persons and Passions, Loraine Scalamoni
- GPP34 3:15-3:30 Documenting the Complexity of Tourette Syndrome: a Neurological Disorder of Control, Repetition and Loneliness, Katelyn Brooke Stanley
- GPP35 3:30-3:45 Making Onggi Glaze in American Circumstance, Joogab Kim
- GPP36 3:45-4:00 Dueling Identities: Exploring My Individual Identity within My Twinship, Haleigh Nicole Stanley
- GPP37 4:00-4:15 Fugueistic Inclinations, Michael Benjamin Gaines

### **MSC 253 | Human Health 3:15 PM – 4:30 PM**

- GPP52 3:15-3:30 Management of a Type A Aortic Dissection in a Pregnant Patient, Julian Gordon, Melisa Pasli, Michael Larkins, W. Douglas Boyd, Michael J. Bates, Jason Ryan, Sunny R. Cai
- GPP53 3:30-3:45 Quality assessment and predictors of success in velopharyngeal MRI – a multisite study, Kathryn Fennie, BS, Taylor Snodgrass, MS, CCC-SLP, Thomas Sitzman, MD, MPH, Jamie Perry, PhD, CCC-SLP
- GPP54 3:45-4:00 Association of Leadership, Performance, and Efficacy in ROTC Cadet, Ajala Baker, Christine Habeeb, Tom Raedeke, Patrick Rider
- GPP55 4:00-4:15 Post-Disaster Mental Health: Resilience and Risk Factors in the Context of Natural Disasters, Steven Paul Gargano
- GPP56 4:15-4:30 Nanbar Health; Empowering Patients, Supporting Providers, and Discovering Connections to Transform Healthcare, Arvind Subramaniam (Mallikarjunan), Jhana Parikh, Shannon Ford, Abhinav Gundala, John Saavedra, Elizabeth Anne Hensley

### **MSC 200 | Natural Sciences 3:00 PM - 4:30 PM**

- GPP73 3:00-3:15 Team Science in Undergraduate Research, Clark Isaac Andersen
- GPP74 3:15-3:30 Copper Binding in FtrB from Brucella sp., Kai Alexander Hart
- GPP75 3:30-3:45 Resolving Human Fibrinogen's In-Solution Structure with Cryogenic Electron Microscopy, Nicholas Carter Kirby
- GPP76 3:45-4:00 Inferences Over Fields, Charles Wingate Crumpler
- GPP77 4:00-4:15 Comparing parton scattering cross section for QGP from the AMY formalism and AMPT model, Noah M. MacKay

## Graduate Student and Postdoctoral Scholar Poster Presentations (In-Person) Ballrooms

### Ballrooms | Biomedical Sciences

9:00-11:00

- GP01 Probing melanoma CD8+ T-cell mitochondrial dynamics and exhaustion: A possible way forward to improve patient therapy outcomes, Raphael Taiwo Aruleba, Debjani Ghosh, Nasreen Vohra, Kelsey Fisher-Wellman
- GP02 Estrogen restores the cardiac function in ovariectomized rats: Role of circadian clock Per2-regulated heart-specific miRNAs and redox enzymes, Syed Anees Ahmed, Baohong Zhang, Abdel A. Abdel-Rahman
- GP03 Effects of perfluorooctane sulfonate (PFOS) and perfluorooctanic acid (PFOA) exposure on erectile function in Sprague-Dawley rats: A Pilot Study, Alexander MK, Hou A, DeWitt JC, Hannan JL
- GP04 Developing an animal model of chronic pain to predict biomarker profiles of morphine responsiveness, Dylan Marshall, Felicia Branch, Mande Schaub, Kori Brewer, Stefan Clemens
- GP05 Magnetic Control of NanoEL via Magneto-Mechanical Actuation, Mohammad Kanber, Obum Umerah, Sydney Grose, Lew Reynolds, and Juan Beltran-Huarac
- GP06 BAFF neutralization impairs the regression of insulin resistance in diabetic mice by modulating the innate immune response, Melissa Lempicki, Jake Gray, Bradley Whitaker, Coleen McNamara, Akshaya Meher
- GP07 MucR represses Brucella genes encoding polar adhesins, Connor Brett Cribb; Ian Barton; R. Martin Roop II

### Ballrooms | Community Engagement, Diversity, Equity, and Inclusion, and Education 9:00-11:00

- GP32 Factors Behind Intrinsic Motivation for Mathematics: A Cross-Sectional Study of 4th and 5th-grade students, Dawn D Fletcher
- GP33 Impact of Fluency Homework on Math Achievement, Kalysa Mccarthy
- GP34 Student Perceptions of Science Instructional Strategies and Vocabulary Acquisition, Tabitha Dawn Mozingo
- GP35 Assessing Reading Motivation in Fourth Grade Students, Jessica Rose Dolan
- GP36 Teacher Perceptions on Teaching International Students, Abigail Elisabeth Prosser
- GP37 Effectiveness of Homework, Deonte Lamont Cavender
- GP38 Teachers' Stance on Foundational Reading Skills, Amanda Taylor Monroe

### Ballrooms | Human Health

9:00-11:00

- GP50 Video fluoroscopic Detection Sensitivity of Swallowing Landmarks following Radiotherapy for Head and Neck Cancer, Deirdre Larsen, M; Caela Collichio;
- GP51 Addressing Nosocomial Infections Caused by Antibiotic Resistant Bacteria using Surface-functionalized Nanoparticles, Chukwudi S. Ubah
- GP52 Multi-Source Exposure Assessment of Lead on Minority Populations and Homes in Pitt County, North Carolina, Elizabeth May Abioro
- GP53 National Assessment of Fatality Reports Among Landscaping and Tree Trimming Workers, Anna Doub and Nancy Romano
- GP54 Does Daily Use of Prolonged Speech Patterns Benefit People Who Stutter, Nathalia Kalena Cannon, Patrick M. Briley, PhD, CCC-SLP
- GP55 Exploring the Relationship Between Praxis & Handwriting Legibility in Elementary Students, Larymi Beck and Kathryn Hill

### Ballrooms | Biomedical Sciences

10:00-12:00

- GP08 Characterization of cardiovascular function, metabolic status and erectile function in rat model of cardiometabolic syndrome, Wrenn D. Pallas, Johanna L. Hannan
- GP09 No Evidence of Erectile Dysfunction, Nerve Injury or Change in SDF-1 Signaling 2 Weeks Following Prostatic Radiation, Bethlehem Peters
- GP10 What is the myocardial implication in RAAS-regulated hypertension? A closer look at the NKA, NCX and Ca<sup>2+</sup> reuptake machinery in the left ventricular myocytes, Rachel E Byrum
- GP11 Effects of interprofessional mass casualty incident simulation on role perception and communication between medical, physician assistant, and nursing students, Hayley Behm, K. Ryan Dickerson, Rachel Stiglitz, David Nacouzi, James Fletcher,
- GP12 Physical Activity During Pregnancy Increases Mitochondrial Efficiency In Myotubes And Offspring Myogenic Mesenchymal Stem Cells, Polina M. Krassovskaia, Ericka M. Biagioni, Alec B. Chaves, Abby D. Altazan, Caitlin Hebert, Chien-Te Lin, Kelsey H. Fisher-Wellman, P Darrell Neuffer, Owen T. Carmichael, Kristen E. Boyle, Leanne M. Redman, Nicholas T. Broskey.

GP13 The role of myoferlin and S100A4 in migration of Human T-cell Leukemia Virus type-1 infected T-cells, Md Abu Kawsar Sarker, Kimson Hoang, Nicholas Polakowski, Isabelle Lemasson

## **Ballrooms | Community Engagement, Diversity, Equity, and Inclusion, and Education 10:00-12:00**

GP27 Discovering Motivation to engage social work graduate students: A Student Leadership Advisory Board, Sheila Gay, JoAnna Latham, Jessica Llamas, Zaye Massey, & Meghan Marie Stello  
GP28 Seeking Sista Blackademics for Support: The labor of being a Black woman doctoral student at a Primarily White Institution, Codi Renee Blackmon, Anie Patterson Partin  
GP29 Enhancing Tuberculosis Treatment Adherence by Tailoring Education to the Patient, Daniela K Ingram  
GP30 Exploring Head Start Teachers' Perception of Science in Preschool Education, Taylor Marie Brown  
GP31 Teaching Social Justice in a Post-MAGA World: Writing Past The Stop WOKE Act, Amanda Patterson Partin

## **Ballrooms | Engineering, Technology, and Computer Science 10:00-12:00**

GP39 Deicing of bridges by heating rebars and heat transfer effect, Pablo Andrés Nunez Hernandez  
GP40 Computational fluid dynamics simulation of pulmonary hypertension in sickle cell disease patients, a viscosity model study, Fatemeh Bahmani, Alex Vahdati, Veeranna Maddipati, Stephanie M. George  
GP41 Optimizing HVAC Design for Pharmaceutical Requirements with Computational Fluid Dynamics, Lijun Liu  
GP42 Cancer subtype detection using tensor decompositions and artificial neural networks, Farnoosh Koleini  
GP43 Undergraduate Medical Education Enhancement Using HoloLens, Cody Michael Johnson, Edward F Gonzales

## **Ballrooms | Humanities and Social Sciences 10:00-12:00**

GP76 Athlete Mental Health and Peer Relationships, Stephanie Fuller  
GP77 An Eighteenth-Century Archaeology of Socioeconomics at Historic Bath, NC, Chloe Suzanne Scattergood  
GP78 Food swamps have stronger impacts on geographic disparities in obesity and diabetes than food deserts in North Carolina: Census tract-level analysis using GI, Connolly David Baxter  
GP79 Self-Exclusion: A look at policies by state based on legalized forms of gambling, Hannah Elizabeth Thornton, Summer Hamideh  
GP80 Examining the Effects of Child Perception of Family Functioning on Psychological Wellbeing, Haiden Hice  
GP81 Training ECU Writing Center Consultants in Suicide and Crisis Intervention Assessment and Response, Joshua A Wade, Amal Hagans, Brandon Higson, James Adam May  
GP82 Emotional Labor in the Writing Center: A Pilot Study, Elizabeth Marie Gagne'  
GP83 Data Analysis and Visualization: Trials and Tribulations of a Graduate Student, Crystal Lee Bowers

## **Ballrooms | Biomedical Sciences 1:00-3:00**

GP14 Collagen-derived matricryptin reduces cardiac inflammation post-MI via regulation of inflammatory response, Sirin Nazan Cakir, MSc  
GP15 Sensitization of Malignant Breast Epithelial cells to Proton Radiation by Gold Nanoparticles, N. Libby, T. Gaddis, M. Nabavinia, J. Huarac-Beltran, J-L. Scemama, and J.L. Shinpaugh  
GP16 How ettA and lepA mutations impact Acinetobacter baumannii strains with csrA deletions, Jackson Aaron Wood, John M. Farrow III, Everett C. Pesci  
GP17 Ethanol-induced right ventricular hypertrophy and pulmonary hypertension: The Role of pro-inflammatory signaling, M.K. Donovan and Abdel A. Abdel-Rahman.  
GP18 Determination of the Elastostatic Force Exerted in the Prostate from Image Registration, Aaron Bain, Shiva Bhandari  
GP19 Investigating the role of Covid-19 in blood clotting, Raegynn Wright, Donald Luckett, Noemi Fuentes-Rivera, Eric Anderson, Donald Tyler Luckett, Noemi Rivera GP20 Central axis and off-axis heterogeneity correction factors for three commercially available I-125 seeds models for COMS eye plaques, Mehran Nik Akhtar, Jae W. Jung, Yongsook Lee, Yongbock Kim

## **Ballrooms | Human Health 1:00-3:00**

- GP44 A Convergent Validity Study: Listening in Spatialized Noise-Sentences (LiSN-S) test and the BKB-SIN test, Gabriela Musumeci B.S, AuD Graduate Student, Caitlyn Amber Paulson, Erin Kokinda, Drew Huffman, Kaitlin Abrams, Alyssa Alford, Trenton Barnett, Morgan Deans, Kelly Dorman, Emily Harrison, Katelyn Overcash, McKenzie Perry, Laney Pope, Melissa Rafaniello, Olivia Sullivan,
- GP45 The Effect of Target Speaker Sex on Monosyllabic Word Recognition in Quiet Ability, Caitlyn Amber Paulson, Erin Kokinda, Drew Huffman, Gabby Musumeci, Kaitlin Abrams, Alyssa Alford, Trenton Barnett, Morgan Deans, Kelly Dorman, Emily Harrison, Katelyn Overcash, McKenzie Perry, Laney Pope, Melissa Rafaniello, Olivia Sullivan
- GP46 Mesenchymal stem cell insulin sensitivity is associated with adiposity in early infancy, Filip Jevtovic, Donghai Zheng, Joseph A Houmard, Christian A Lopez, Kara Kern, Nicholas T Broskey, Linda E May
- GP47 Hertford County: A Review of Contributions Related to Infant Mortality and Potential Solutions, Meek Myoung, David Oakley, Aaron Phillips, Pankti Sheth, Taylor Stamey, Johnny Vang
- GP48 Maternal Physical Activity Enhances Mitochondrial Bioenergetics in Offspring Fetal Mesenchymal Stem Cells, Ericka M. Biagioni, Polina M. Krassovskaia Alec B. Chaves, Abby D. Altazan, Caitlin Hebert, Chien-Te Lin, Kelsey H. Fisher-Wellman, P. Darrell Neuffer, Owen T. Carmichael, Kristen E. Boyle, Leanne M. Redman, Nicholas T. Broskey
- GP49 Risk of COVID-19 infections Among People with Asthma: A Scoping Review, Chukwudi S. Ubah, MPH

## Ballrooms | Natural Sciences

1:00-3:00

- GP69 PAH Contamination Variability in the Lower Tar River N.C. From a Legacy Hazardous Waste Site as a Function of Hydrological Conditions, Daniel Joel Reed
- GP70 Dry matter digestibility and stable carbon and nitrogen isotope analysis of captive northern galagos (*Otolemur garnettii*) fed experimental frugivorous and invertebrate diets, ZACKARY R. SHEPARD, JAMES E. LOUDON, KATHERINE B. SMITH, MICHAELA E. HOWELLS, ANDRES M. GOMEZ, OLIVER C.C. PAINE, and MATT SPONHEIMER6
- GP71 CONSTRAINTS ON EMPLACEMENT HISTORY OF SUBVOLCANIC MAGMA SYSTEMS FROM THERMAL MODELING, HENRY MOUNTAINS UTAH, Collin Earls
- GP72 Prevalence and Transmission of Black Gill Disease in Penaeid Shrimp in the Pamlico Sound, Chloe Elizabeth Gabriel
- GP73 Deciphering potential toxicity of Alumina (Al<sub>2</sub>O<sub>3</sub>) nanoparticles in *Camelina sativa*, Bishwa Raj Pokharel
- GP74 Laser and X-Ray Source Characterization for Optically Stimulated Luminescence, Christopher Garcia, Regina DeWitt
- GP75 Characterization of the floral development mutant, Polytypic earl, Kimberly R. Rispress, Anastasia Amoiroglou

## Ballrooms | Biomedical Sciences

1:30-3:30

- GP21 The effects of protons and lactate due to increased glycolysis on the expression of the inflammatory and stress genes of human umbilical vein endothelial cells, Kylie D. Cashwell, Li V. Yang
- GP22 Modelling of Light scattering by microspheres and biological cells, Ismail Ibrahim
- GP23 The Radiosensitization Effect of PEG-coated Gold Nanoparticles in Prostate Carcinoma Cells with Proton Irradiation, Tristan Gaddis, Nichole Libby, Mahboubeh Nabavinia, Juan Beltran-Huarac, Michael Dingfelder, and Jefferson Shinpaugh
- GP24 Association between congenital heart disease and trauma surgery outcomes, Titilola Babatunde, Seth Wolf, MD, Dmitry Tumin, Erika Greene, Shannon Longshore
- GP25 Hamstring Length Effects on Ground Reaction Force in Pitchers, Houmard T, Tart L, Casadonte J, Durland A, Young B
- GP26 Impact of Insecticide Exposure Method on Susceptibility/Resistance in Mosquitoes, Crystal Elizabeth Dailey, Stephanie Richards, Sinan Sousan

## Ballrooms | Natural Sciences

1:30-3:30

- GP62 Non-destructive Indicators of Trematode Parasite Infection in Littorinidae Snail Hosts, Grace Loonam, Amanda Wolf, Amy Fowler,
- GP63 PALEOENVIRONMENTAL CHANGES RELATED TO RAPID SEA-LEVEL RISE DURING THE LATE PLEISTOCENE IN THE LOWER NEUSE RIVER BASIN, NORTH CAROLINA, Jessica King, David Mallinson
- GP64 Recent Biochemical Advances in the Isolation of Cryptochrome, Samuel Wyatt Guy
- GP65 Review of pQCD Derivations of Shear Viscosity of the Quark-Gluon Plasma, Okey Ohanaka
- GP66 Pyrogenic organic matter in sediments from Lake Bosumtwi as a proxy for Holocene climate in northern Africa, Michael Paul Zigah
- GP67 Status of a mid-Atlantic population of a threatened freshwater marsh bird: land management is a key predictor of occupancy, Carol Gause
- GP68 Dosimetry calibration for low-energy protons produced in the ECU accelerator, Homeira Faridnejad and Regina DeWitt

## Ballrooms | Human Health

1:30-3:30

- GP56 Decontamination of food packaging plastics with novel nano-antimicrobial and cool light, Caroline A. Knowles; Chukwudi S. Ubah

- GP57 The Influence of Orthodontic Appliances on MRI of the Velopharynx, Eshan Schleif, Van Wallace McCarlie Jr, Xiang Ming Fang, Patrick M. Briley
- GP58 THE IMPACT OF BLOOD FLOW RESTRICTIONS ON STRENGTH AND COORDINATION OF A YOUNG ADULT WITH QUADRIPLEGIC CEREBRAL PALSY, Taylor Lucas, Sarah Johnson, Swati Surkar, Shailesh Gardas
- GP59 Reducing Patient Harm: Identifying Risk Factors Associated with Development of Pressure Injuries in a Pediatric Cardiac ICU, Jamie C Johnson, Tammy Candito
- GP60 Characterizing Nationally Available Gelatin-Based Products using IDDSI Testing Methods, Meghan Eisenhardt, Abigail Perrini, Mathew Vansant, Deirdre Larsen,
- GP61 The Effect of Male vs Female Voices in Speech Recognition in Noise, Erin L Kokinda, Andrew J. Vermiglio, Caitlyn Paulson, Reyse Stirrett, Ava Cunningham, Kathryn Fennie, Laura Hall, Abigail Ormond

## **Graduate Student Posters (Online)**

MSC Room 237, 10:00-4:00

10:00-10:55 Exploring the Role of Complex I in Colorectal Cancer, Mclane Matthew Montgomery

10:00-10:55 North Carolina Read to Achieve Legislation: Is it Successful for Third Graders in a Title I School? Tracy Lee Gilbert

10:00-10:55 Early Childhood Phonemic and Phonological Strategies in Kindergarten Students, Stephanie Moody

10:00-10:55 Understand the predicting factors of achievement gaps in upper elementary students at Title One schools, Jodian Monique Barker

10:00-10:55, Student Attitude of Social-Emotional Learning, Sarah Elizabeth Seymour

10:00-10:55 Improving Students' Self-Determination Using Engaging Instructional Strategies, Ashleigh Claire Fleming

10:00-10:55 What are the science education programs and outreach programs that are provided by informal science centers in Central Eastern NC?, Courtney Leigh Olvey

10:00-10:55 Math Curriculum Implementation and Student Proficiency, Elaine Elizabeth Waters

10:00-10:55 Open Court Curriculum, Olivia Nichole Haley

10:00-10:55 Investigating Achievement Gaps with Student Led Mathematic Instruction, Hunter Avery Mcneeley

10:00-10:55 Learning Outcomes of a Peer-Explored Inquiry Method Using Virtual Simulation Laboratory Experiences, Candice June Lavra Fleming

11:00-11:55 The novel function of PUF-9 RNA-binding protein in C. elegans Parkinson model, Mariah Elizabeth Jones, Savannah Lipski, M.H. Lee

11:00-11:55 Investigating how Student Motivation can Impact and Benefit Middle School, Special Education Students in the Classroom, Kara Wilkerson



11:00-11:55 Teachers' Perception on CKLA: Knowledge (Listening and Learning) Strand, Fernanda Pivetta Gerringier

11:00-11:55 Second grade students' view on how humans impact the life cycle of sea turtles, Morgan Alyssa Salge

11:00-11:55 The effect studying abroad has on a science teachers' implementation of multicultural instruction into their classroom, Kayla Alex O'Brien

11:00-11:55 Inclusion Benefits for Self-Contained Elementary Students, Casey P Herman

11:00-11:55 Teacher Perception on the Impact of Retention on Student Achievement, Vanessa M Jeanty

11:00-11:55 Implementing Barthel Index of Activities of Daily Living into Standard Nursing Assessment on the Medical-Surgical Unit to Help Reduce Falls, Rebecca Dunn

11:00-11:55 Classroom Management: Effective Support for Beginning Teachers in the Kindergarten & First Grade Classroom, Ashley Bass Sullivan

11:00-11:55 The Impact of Environmental Injustice Education on High School Students' Attitudes and Behaviors Related to Climate Change, Kristine Lynn Doster

11:00-11:55 Third Grade Students Virtual Plant Models: How does the use of SeeSaw impact Third Graders knowledge of creating a plant structure model for flowering and non-flowering plants?, Hannah Falk

2:00-2:55 Spectrophotometric study of turbid samples and artery phantoms for modeling of photoplethysmography process, Zachary David Jones

2:00-2:55 Teachers' Perception on Class Size, Kayla Marie Wood

2:00-2:55 Impact of Virtual Models in 5th Grade Students Conceptual Understanding of The Greenhouse Effect, Sarah Sanchez

2:00-2:55 Effect of Serious Educational Games on Physical Science Student Knowledge, Jarrett Davidson Godwin

2:00-2:55 The Relationship Between Scores on 3 Different Kindergarten ELA Assessments, Jessica Leigh Williams

2:00-2:55 Integration of Movement in Physics Teaching for 1st Grade Students, Danielle Nicole Marsicano

2:00-2:55 Analyzing Student Task Values For Activities in an Earth History/Evolution 8th Grade Science Unit, Shayna Renee Hines

2:00-2:55 The Effectiveness of School to Home Relationships: Family Perceptions of English Language Learners, Lindsey Christine Main

2:00-2:55 Strategies to Motivate Struggling Readers, Connie D Oliver

2:00-2:55 Teacher Motivation and AP Courses, Cassandra Maralica Flemming

2:00-2:55 Parent Participation in Middle School Education, Julia Dean Gilmore

3:00-3:50 'Where's Jim Cantore?': Using Humor & Affective Ecologies for Crisis Communication, Ashleigh Hill Taylor

3:00-3:50 Rooted, Kristen Lanier Baucom

3:00-3:50 From the Inside: Educators Perspective on Academic Curriculum and Child Development, Kristin Danielle Schneider

3:00-3:50 The impact of CER argumentation instruction on student abilities to support a claim with evidence, Krystal Krill

3:00-3:50 Where are We?, Tamla Boone

3:00-3:50 THE IMPACT OF ARGUMENTATION ON THE ACHIEVEMENT LEVELS OF 7TH GRADERS' KNOWLEDGE AND ATTITUDES TOWARDS GENETICS, Mitchelle Simone McLeod

3:00-3:50 Analysis of Fibrin Fiber Growth, Aravind Elangovan

3:00-3:50 Effectiveness of nutrition education in a cardiac rehabilitation (CR) program and barriers to diet adherence, Mary Frances Donnelly

3:00-3:50 The Impact of Recess on Students' Academic Performance, Meredith Louise Valentine

3:00-3:50 Geometry Analysis of Oscillating Surge Wave Energy Converter Flap, Jason Takeo McMorris, Faete Filho