

Apr 18th, 7:00 AM

Student Research Symposium 2019

Georgia Southern University

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STUDENT RESEARCH SYMPOSIUM 2019



GEORGIA SOUTHERN
UNIVERSITY

APRIL 18, 2019

Schedule of Events

8:30-9:30AM REGISTRATION &

CONTINENTAL BREAKFAST

Nessmith-Lane Atrium & Ballroom

10:30-12:00PM Poster Session 1

Nessmith-Lane Ballroom

College of Behavioral & Social Sciences

Allen E. Paulson College of Engineering & Computing

Waters College of Health Professions

Jiann-Ping Hsu College of Public Health

11:00-12:00PM

Paper/Oral Session 1

Behavioral & Social Sciences Rm 2901

Business Rm 2904

Public Health & Well-being, Exercise Science & Human Performance Rm 2905

Natural & Physical Sciences Rm 2908

12:00-1:00PM - Lunch, Presentation of the Averitt Awards

Nessmith-Lane Ballroom

12:00-1:30PM AFTERNOON REGISTRATION

Nessmith-Lane Atrium & Ballroom

1:30-2:30PM

Paper/Oral Session 2

Arts & Humanities, Behavioral & Social Sciences Rm 2901

Engineering & Material Sciences Rm 2903

Natural & Physical Sciences Rm 2904

Natural & Physical Sciences Rm 2905

Natural & Physical Sciences Rm 2908

2:00-3:30PM Poster Session 2

Nessmith-Lane Ballroom

College of Science & Mathematics

College of Education

2:30-3:30PM

Paper/Oral Session 3

Behavioral & Social Sciences Rm 2901

Computer Science & Information Technology, Engineering & Material Sciences Rm 2903

Education & Learning Rm 2904

Natural & Physical Sciences Rm 2905

Natural & Physical Sciences Rm 2908

Poster Session 1

10:30-12:00PM

College of Behavioral & Social Sciences		
1-1	Discrimination within the Black Lesbian Community	Akalah Favors
1-2	Necklines Should Not Encourage Others to Stare	Brie Ladin
1-3	Socioeconomic Status and Vaccination Rates of Children	Cierra Clark
1-4	Parallelism of Grunge Aesthetic and Upcycled Fashion	Ana Benca
1-5	How Does Race Effect Infant Mortality among African American Women in the United States?	Justice Mohone
1-6	The Impact of Digitalization on Gen Z: Symbolism through a Window Display	Brittainy Trevathan

Poster Session 1

10:30-12:00PM

Allen E. Paulson College of Engineering & Computing

1-7	Hand Prosthesis Control Using Electromyographic Signal Trained Neural Network for Live Gesture Classification	Zack Minshew
1-8	Under Water ROV	Macy Beasley
1-9	Pico-Grid Smart Home Energy Management System Using Mel Frequency Cepstral Coefficients	Zachary Hamilton
1-10	Noise, Vibrations and Combustion Emissions Comparison of IPK and S8 Synthetic Fuels in an Aero Gas Turbine	Margaret Kilpatrick
1-11	Things That Go Squish	Sierra Houang
1-12	Forecasting PM2.5 Concentrations in Beijing, China through a Deep Learning Method	Matt McGrath
1-13	Assessment of the Fate of Anthropogenic Nitrogen and Phosphorus Compounds in the Ogeechee River Eight Years After the Fish Kill Event	Sumaia Islam
1-14	Evaluating the Origins and Effects of Interior Pollutant Concentrations	Sophia Fleri
1-15	Automated Partial Credit Grading	Anthony Palacio
1-16	Pneumonia Radiograph Diagnosis Utilizing Machine Learning	Wesley O'Quinn
1-17	Portable Anechoic Chamber Design	Wesley O'Quinn
1-18	Towards Cloudification of Future Internet-based Vehicular Networks	Lauren Ason
1-19	Joint Resource Allocation in Ultra-reliable, Low Latency Vehicle-to-Infrastructure Wireless Communications with Edge Computing	Md Mostofa Tareq
1-20	Improving STEM Learning through Real World Application Learning Techniques	Chikamso Anayor Achu
1-21	An Efficient Visual-Based Method for Classifying Instrumental Audio using Deep Learning	Justin Hall
1-22	Optimum Oxygen Flux Determination to Regulate Nitrification-Denitrification in Freshwater Sediments using Micro-profiling Techniques	Md Kawser Zaman
1-23	The Advantage of Using 4D BIM in Roofing Crews Safety	Hamed Muftah Grabil

Poster Session 1

10:30-12:00PM

Waters College of Health Professions

1-24	Relationship between Bone Mineral Density and Vertical Jump Performance in Collegiate Athletes	Sarah Lanham
1-25	Comparison of Various Body Composition Measures for Division-I Collegiate Male Athletes	Gina Hogan
1-26	Effects of a 6-week Fitness Program on Firefighter Recruits: A Case Study	Brandon Loewen
1-27	Relationship between Bone Mineral Density and Grip Strength in Collegiate Athletes	Connor Collum
1-28	Health Promotion through Self-Management among College Students	Olamide Adebayo
1-29	Delivery Mode and Obesity Incidence in Children Aged 2-10 Years	Hannah Mason

Jiann-Ping Hsu College of Public Health

1-30	Decreasing Obstacles to Receiving Uninterrupted HIV/AIDS Care in Low Socioeconomic Populations in Southern Georgia	Josh Kies
1-31	Overall Microbial Activity on Shopping Carts Handles: Relationship with Ambient Temperature, Relative Humidity, Moisture, and Ultraviolet Radiations	Grayson Rentz
1-32	Microbiological Water Quality at Jekyll Island Beaches	Michela Hizine
1-33	Simultaneous Measurements of Airborne Microorganisms, VOCs, Moisture, Light, Particulate Matter, and Ventilations in Indoor Home Environments	Edward Dotherow
1-34	The Relationship between High Consumption of BVO-Contained Beverage, CVD and Stroke	Joana Tome
1-35	The use of Digital Technology to Improve and Monitor Handwashing among Children 12 Years or Younger in Educational Settings - A Systematic Review	Sylvia Ofori
1-36	Rainfall and Temperature as Environmental Factors Impacting Beach Water Quality in Coastal Georgia	Joshua Longcoy
1-37	Utilizing Twitter to Identify Unplanned School Closures during the 2017-2018 Winter Season for Massachusetts and Georgia Public School Districts	Haley Evans
1-38	Increasing Parental Involvement in Academic Tutoring: Formative Research Results and Implications for Social Marketing	Tanesha Slocumb
1-39	Community Perceptions on Access to and Communication Gaps Regarding Dementia-Specific Health Resources and Services	Ginger Bastian
1-40	Conducting Sexual and Reproductive Health Education in Sub-Saharan Africa	Brad Nabours

Paper/Oral Session 1

11:00-12:00PM

Room 2901	Behavioral & Social Sciences	
	The Social Effect of Commercial Tourism in Gulf Countries	Emily Krout
	How are African American being Represented in Vogue?	Hannah Hillman
	Gun Laws and Cessation: Data Implications	Joshua Sandefur
	Adolescent Male Attractions to Older Women in Hannah Montana	Erin Maurer

Room 2904	Business	
	The Impact of Information Technology Capability on Production Process Variability under Environmental Uncertainty	Ata Karbasi
	Supply Chain Improvements to Increase Manufacturing Performance	Alecia Breen
	North American Intermodal Applied Research	Tate Robinson
	Supply Chain Improvements to Increase Manufacturing Performance	Madeleine Haney
	FreightTech Innovation Challenge: A 24-Hour Transportation and Logistics Use Case Competition	William Harris

Paper/Oral Session 1

11:00-12:00PM

Room 2905	Public Health & Well-being, Exercise Science & Human Performance	
	Social Media Use in Emergency Response to Natural Disasters: A Systematic Review with a Public Health Perspective	Kamalich Muniz-Rodriguez
	Illness Rates Among Vaccinated and Unvaccinated School-Aged Children	Cierra Anderson
	The Presence of Spirituality and its Effect on Attitudes Towards Death	Isabel Cortez
	Exploring Patient and Caregiver Perspectives for Development of a Smartphone Application	Delores Quasie-Woode
	Comparison between Caloric Expenditure Sitting on a Standard Chair, Stability Ball, and Balanced Active Sitting	Emily Langford

Room 2908	Natural & Physical Sciences	
	The Performance Of Explicitly Correlated Wavefunctions For The Computation Of Anharmonic Frequencies	Atsu Agbaglo
	A New Generalized Lindley-Weibull Distribution: Model, Properties and Applications	Soliu Raheem
	A New Lindley-Log-logistic Distribution: Model, Properties and Applications	Elizabeth Kenkwo
	Bulk Optically Neutral Metamaterials	Thomas Mulkey

Paper/Oral Session 2

1:30-2:30PM

Room 2901	Arts & Humanities, Behavioral & Social Sciences	
	Framing CSR Activities: A Case Study on Patagonia	Madison Mullis
	Making Online Shopping More Accurate and Less Harmful to the Environment	Parisa Farmoudeh
	Utilization of Framing Theory and Effectiveness of Hashtags within Nonprofit Social Media	Ashley Misiaszek
	#AdvancedStyle: How Sharing Fashion on Social Media Creates an Opportunity for Positive Social Engagement for Aging Adults	Mackenzie Miller

Room 2903	Engineering & Material Sciences	
	Using Machine Learning Models for Computational Fluid Dynamics	Trey Brown
	Yield, Quality, Energy Content and Leaf Nutrient Composition	David Penn II
	The Effect on the Crashworthiness of Square Tubes by Varying Cut-Out Size Along Their Length	Thomas Mockler

Room 2904	Natural & Physical Sciences	
	The <i>in situ</i> Response of the Facultatively Symbiotic Coral, <i>Oculina arbuscula</i> , to Ocean Acidification	Erin Arneson
	Do Hurricanes put Hammocks in the Wrack?	Melissa Skinner
	Applying LUR Model to Estimate Spatial Variation of PM _{2.5} in the Greater Bay Area, China	Lingling Chen

Paper/Oral Session 2

1:30-2:30PM

Room 2905	Natural & Physical Sciences	
	1,2,3-Triazole as Potential Corrosion Inhibitors	Tyler Camp
	Peptide Functionalized Materials for Aqueous Pollutant Removal	Ibikunle Ojo
	Approach Toward the Synthesis of a Polymeric Chemosensor based on a 1,2,3-Triazole Scaffold	Aikohi Ugboya

Room 2908	Natural & Physical Sciences	
	Equivalence of Reciprocities in Complex Metamaterials	Morgan LaBalle
	Generating Functions for Restricted N-Color Cyclic Compositions	Elizabeth Hawkins
	A Clustering Approach for Self-Care Problem Identification in Children with Disabilities	Rachel Lewis
	Math Modeling Game Theory Through Multiplayer Games	Candace Luong

Poster Session 2

2:00-3:30PM

College of Science & Mathematics		
2-1	Numerical Approximation of Lyapunov Exponents from State Samples of Dynamical Systems	Nakita Andrews
2-2	Bloch-Wave-Based Effective Media for Complex One-Dimensional Metamaterials	Robert Williamson
2-3	Pyridazine Compounds as Novel Anti-Cancer Therapeutics	Favour Uwan Ukpongson
2-4	Syntheses, Single-Crystal X-Ray Analyses, Spectroscopic and Magnetic Characterizations of Polynuclear Transition Metal Complexes Incorporating the Anion of 4,5-Bis(hydroxymethyl)-2-methylpyridin-3-ol	Nicholas Shumate
2-5	Exploration of Two Alkoxide based Ligands, 4,5-bis(hydroxymethyl)-2-methylpyridin-3-ol, and 2-hydroxymethyl Pyridine in the Coordination Chemistry of First Row Transition Metals	Kiana Moncur
2-6	Novel Compound Pyridazine's Efficacy as an Epinephrine Analog	Jack Wilson
2-7	Designing Compact Microfluidic Structures to Study Cancer Cell Metastasis via Flow-less Spatial and Temporal Gradients	Arturo Diaz
2-8	Dietary Ingestion of 2-aminoanthracene and the Risk for Type-1 Diabetes	Moses Yeboah Kusi
2-9	Bio-Based Starch and Plant Oil Composite Materials	Eletria Biswas
2-10	Exploring "STARS" in Chemistry	Isaac Graves
2-11	One Step towards Green and Sustainable Organic Chemistry	Dylan Smeyne
2-12	Assessment of Oxidative Stress in the Livers of Rats Exposed to 2-Aminoanthracene for 12 Weeks	John Stagg
2-13	Synthesis of Biologically Active Nitrogen Containing Pyridazines Heterocycles	Lauryn-Ashley Demby
2-14	Na ⁺ Ion Modulation in the Analgesic Mechanism of Novel Quinoline Derivatives	Laurie Villamor
2-15	Photophysical Modulation of a Triazole Molecule in a Cationic Micelle	Elizabeth Dobson
2-16	Structure-Signal Relationship Investigations of an Efficient Chemosensor for Fluoride Anions: 2-, 3- and 4-Amino Analogues of a Hydroxyaromatic 1,2,3-Triazolyl Scaffold	Unodinma Ofulue
2-17	Pine Rosin Polymer Synthesis	Allen Hulette
2-18	Defining a Chemical Index to Predict Colony Recognition in Argentine Ants, <i>Linepithema humile</i>	Katherine Barrs
2-19	Thermal and Low Oxygen Tolerance of a Southern Population of Striped Bass (<i>Morone saxatilis</i>)	Daniel Lleras
2-20	Life on the Limb: How do the Plants Growing on Plants get Water?	Ben Willis

Poster Session 2

2:00-3:30PM

College of Science & Mathematics

2-21	Evaluating the Effects of Shoreline Change on the Spatial Distribution of Loggerhead Sea Turtle (<i>Caretta caretta</i>) Nests on St. Catherines Island	Sydney Davis
2-22	The Microbial Bioremediation of Wastewater Supplies	Matt Beckham
2-23	Investigating the Toxicology of Intramuscular Injected CNT-AB in Mice followed by Microwave Hyperthermia.	Conner Clark
2-24	Investigation of Type 1 Diabetes in Juvenile Sprague Dawley Rats	Bethany Bogan
2-25	Examining the Mechanistic Roles of Integrin Alpha-6 in Cancer Metastasis.	Chase Clark
2-26	Synthesis of Functionalized Halloysite Nanotubes	Christian Freeman
2-27	Recyclability of Bio-Based Materials Prepared from the Polymerization of Vegetable Oils	Victoria Hull
2-28	Arboreal Epiphytes: How Often are the Biggest "Buckets" in the Canopy Empty?	Hailey Hargis
2-29	Synthesis of Multidentate Boronic Acid Derivatives	Allen Gordon
2-30	Developing a Procedure and Establishing Protocols for Cell Culture Production	Ileene Diaz
2-31	Rainfall Interception and Redistribution by Dogfennel (<i>Eupatorium capillifolium</i>), a Dominant Understory and Pasture Plant	Alex Gordon
2-32	Co-axial Silicon Fibrous Membranes for High Capacity Lithium Ion Battery Anodes	Chris Anderson
2-33	Free Radical Decorated Protein Nanoflower's Characteristics and Applications	Can Cai
2-34	Acid Base Properties of Substituted Tetraphenyl Porphyrins	Megan Dempsey

College of Education

2-35	Leadership Behavior Development of First-Year Students within a Leadership Development program	John Banter
2-36	Exploring Alumni Valuation of an Undergraduate Leadership Program	John Egan
2-37	Social Network Analysis and Manipulation	Ferdous Ahmed
2-38	Using Social Network Analysis to Understand Productivity and Collaboration in a Research Laboratory	Alex Gilbert

Paper/Oral Session 3

2:30-3:30PM

Room 2901	Behavioral & Social Sciences	
	Problems and Solutions in Georgia's Fishing Industry	Julia Thomas
	Portrayal of Violence in Cartoons	Nashae Harden
	Family Styles Presented in Disney Movies	Hannah Williamson
	Silence as a Strategy	Jarvis Steele

Room 2903	Computer Science & Information Technology, Engineering & Material Sciences	
	Improvement upon EEG-based BCI Systems Using a Genetic Algorithm	Justin McCorkle
	Distributed Energy Resources Optimization for Wireless Base Stations using Power Amplifier Switching	Shuva Das
	Using Exponential and Logarithmic Thresholds to Optimize Scalable Video Traffic over Passive Optical Networks	David Moore
	Implementation of a Robot Delivery System	Chikamso Anayor-Achu

Room 2904	Education & Learning	
	"Why Can't We Be Friends?": An Examination of Collaboration and Relationships in Higher Education	Jennifer Syno
	The Rose that Grew from Concrete: Helping Black Girls Resist Oppression in a Suburban Public School	LaTashia Thomas
	Education and Aspiration of African Americans in Rural South Georgia	Kelly Childers

Paper/Oral Session 3

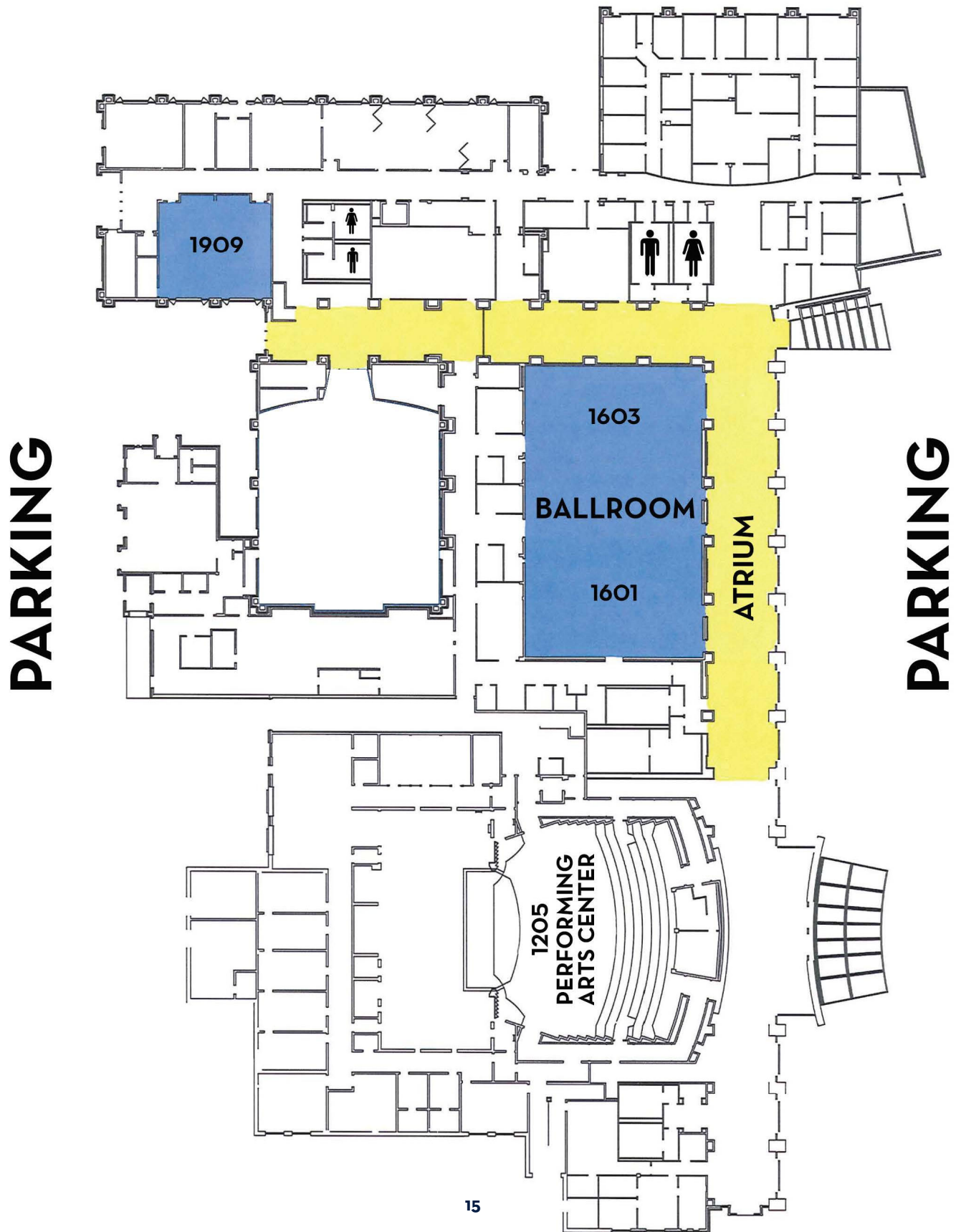
2:30-3:30PM

Room 2905	Natural & Physical Sciences	
	Investigation of the Toxicological Effects of CNT-Ab in Mice following Microwave Hyperthermia	Carter Mixson
	Functional Polymer for Ion Detection	Khristal Monroe
	Caspases and Cancer: Connections through Circular Dichroism Spectroscopy	Sarah Hethcox
	Lipid Droplets in Health and Disease	Austin Noah

Room 2908	Natural & Physical Sciences	
	Modelling the Stochastic Spread of Rumors and Terroristic Ideas on Complex Social Media Networks	Mymuna Monem
	Construction of Maximum Principle Satisfying Numerical Schemes for Traffic Flow Models	Oluwaseun Farotimi
	Stochastic Modelling of <i>Streptococcus pneumoniae</i> Epidemics	Chinmoy Rahul
	Modelling the Stochastic Spread of Typhoid Fever Epidemics	Omotomilola Jegede

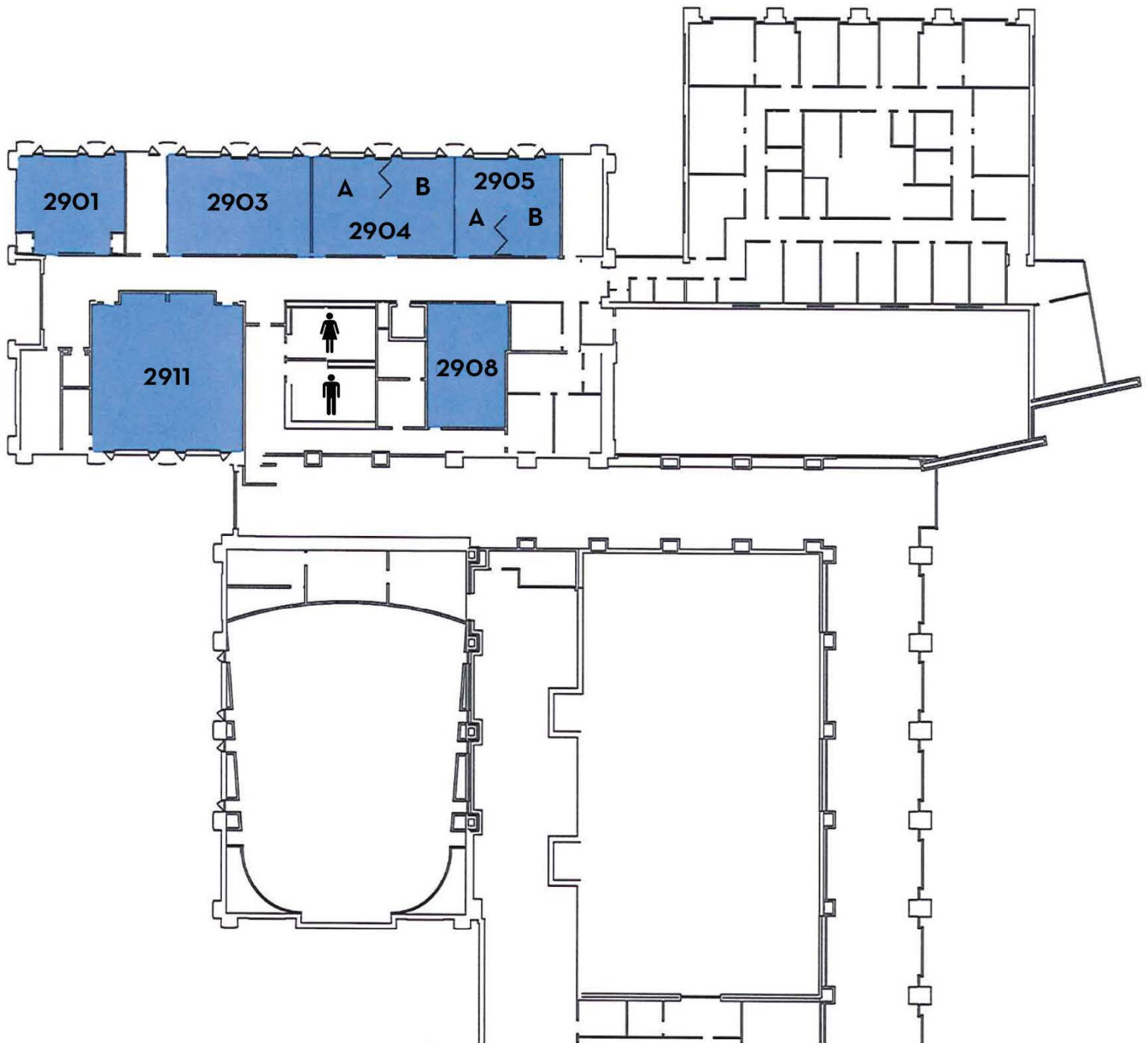
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ACKNOWLEDGEMENTS

Thank you to those that helped make the 2019 Research Symposium a great success!

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