StatFest 2017

Promoting Diversity in the Statistical Sciences

September 23, 2017

Emory University

Dear Student:

It is our pleasure to welcome you to the StatFest 2017 conference. We have an outstanding day planned for you. Leaders from academia, government, and the private sector have all come to share their insights and experiences with a goal of helping you understand the tremendous opportunities available in the statistical sciences.

This day is all about you! So, please take full advantage of this unique opportunity. Ask questions. Introduce yourself to speakers. And, take the time to meet other students. If each of you leaves here having learned something that will direct your career path, and having made personal contacts that will support you in the future, then this will, indeed, be a great day.

Thank you for your presence today. If there is anything we can do for you while you're here, please don't hesitate to ask.

Enjoy YOUR Day!

Sincerely,

StatFest 2017 Organizing Committee

Emory University

Emory University is one of the world's leading research universities and is currently ranked as one of the top 20 universities in the United States of America by US News and Word Report's 2017 rankings. Its mission is to create, preserve, teach and apply knowledge in the service of humanity. Emory's Rollins School of Public Health is currently ranked #7 on the list of Best Graduate Public Health Programs. At the Rollins School of Public Health, students learn to identify, analyze, and intervene in today's most pressing public health issues. The Department of Biostatistics and Bioinformatics (BIOS) was founded over 50 years ago and takes pride in preparing collaborative scientists ready for a data rich future. Emory BIOS is thrilled to host StatFest 2017! Thank you for collaborating with us to promote diversity in our field and train the next generation of statistical scientists.

Overview

StatFest is a one-day conference aimed at encouraging students from under-represented groups to consider careers and graduate studies in the statistical sciences. The conference is an ongoing initiative of the American Statistical Association's (ASA) Committee on Minorities in Statistics.

The first StatFest was held in 2001 at Spelman College in Atlanta, GA. This Mini StatFest, as it was then called, exposed students from Spelman and the Atlanta University Center to dynamic role models and information on careers in statistics. Since then, StatFest has grown into a one-day regional conference and has been held at several institutions around the country.

Past StatFest Conference Venues

2016 Howard University
2015 University of Chicago
2014 North Carolina State University
2013 Rice University
2012 San Francisco State University
2010 Spelman College
2009 University of Iowa (part of Iowa Field of Dreams Conference)
2008 Lamar University
2007 Eli Lilly and Company
2006 University of Texas at El Paso (UTEP)
2005 Florida A&M University
2005 University of Hawaii, West O`ahu
2003 North Carolina State University
2002 Meharry Medical College
2002 Hampton University
2001 Spelman College

2017 StatFest Program Agenda

8:30 – 9:00   **Continental Breakfast and Check-In**

9:00 – 9:15   **Welcome and Opening Remarks**
- *Reneé Moore*, ASA COM and StatFest Committee Chair
- *Lance Waller*, Chair Emory Biostatistics & Bioinformatics
- *Kimberly Jacob Arriola*, Associate Dean for Academic Affairs
  Emory Rollins School of Public Health

9:15 – 9:45   **Keynote Address**
Brian Millen, Eli Lily

9:45 – 10:45   **Careers in Statistics Panel**
- *Nancy Glenn Griesinger* (Moderator), Texas Southern University and owner Mobile Math, LLC
- *Knashawn Morales*, Associate Professor, University of Pennsylvania
  Perelman School of Medicine, Department of Biostatistics & Epidemiology
- *Albert Kim*, Lecturer, Amherst College, Department of Mathematics and Statistics
- *Michael Thomas*, GA Dept. of Behavioral Health and Developmental Disabilities
- *Vanessa Brown*, Suntrust Bank

10:45 – 10:55   **Networking Competition Instructions:**
- *Darius McDaniel* (Facilitator), Biostatistician, NCIRD- Division of Viral Diseases
- *Raphiel Murden,* Graduate Student, Emory Biostatistics

10:55 – 11:10   **Break/Snack**

11:10 – 11:55   **Statistics Careers at CDC**
- *Simone Gray* (Moderator), Mathematical Statistician, Cancer
- *Darius McDaniel*, Biostatistician, NCIRD- Division of Viral Diseases
- *Erica Dawson*, Epidemic Intelligence Service (EIS) Fellow, HIV
- *Denise Bradford*, Mathematical Statistician, Adolescent Health

11:55 – 12:05   **Acknowledgement of Sponsors**

12:05 – 12:55   **Lunch (Networking Circles)**

12:55 – 1:10   **Special Presentation: Student Opportunities within ASA**
Sastry Pantula, Professor, Oregon State University and former ASA President

1:10 – 1:25   Preparing for Admission to Graduate School
Adriana Perez, Associate Professor, Department of Biostatistics and Data Analysis,
    University of Texas Health Science Center at Houston, School of Public Health in Austin

1:25 – 2:00   Graduate Programs Panel
- *Adriana Perez* (moderator)
- *Nalini Ravishanker*, Professor and Director of Undergraduate Programs, Department of Statistics, University of Connecticut
- *F. DuBois Bowman*, Chairman and Professor, Department of Biostatistics, The Mailman School of Public Health, Columbia University
- *Zhaohui Steve Qin*, Associate Professor and Director of Graduate Programs, Department of Biostatistics and Bioinformatics, Rollins School of Public Health, Emory University

2:00 – 2:15   Summer Research Opportunities
Justine Herrera, Director of Academic Programs, Department of Biostatistics, Columbia
    University

2:15 – 2:30   Break/Snack

2:30 – 3:30   Parallel Sessions
A. Students: The Graduate Student Experience
- *Raphiel Murden* (Moderator), Emory Biostatistics- PhD program
- *Jemar Bather*, NYU Statistics - MS
- *Dominique McDaniel*, Purdue Statistics - PhD
- *Brittney Bailey*, OSU Biostatistics - PhD/ABD
- *Brittany Green*, University of Cincinnati Business Analytics/Statistics - PhD

B. Professionals: Filling in the gap, how do we prepare stronger candidates for graduate programs in statistics?
- *Adriana Perez* (Facilitator)
- *Catherine Case*, University of Georgia, Department of Statistics

3:30 – 3:45   Conference Wrap-Up and Concluding Remarks
- Networking Results: Darius McDaniel, Raphiel Murden
- Concluding Remarks: Reneé Moore

3:45 - 4:45   Poster Session and "Ice Cream" Reception

Poster Session

Name(s): Anarina Murillo

Institution: University of Alabama at Birmingham

Title of poster: Predicting Type 2 Diabetes Risk and Physical Activity from 2D Body Composition Data Corrected for Measurement Error

Abstract: Evaluating body fat is necessary for assessing the risk of many chronic diseases. However, these estimates may involve measurement error and may lead to biased estimates of the relation between body fat and other variables. Logistic regression models were applied to predict 1) type 2 diabetes and 2) physical activity using error-corrected body fat estimates obtained from 2D photographic data, where dual-energy x-ray absorptiometry (DXA) was the assumed "gold standard" measure. We compare the utility of three measurement error correction methods including: regression calibration, simulation extrapolation, and multiple imputation.

Name(s): Zhaohui S. Qin

Institution: Emory University

Title of poster: Accurate identification of disease-specific non-coding risk variants based on multi-omics profiles

Abstract: The majority of variants identified by Genome-wide association studies (GWAS) fall outside of the protein-coding regions. Understanding the cryptic link between non-coding sequence variants and pathophysiology of complex diseases is a fundamental challenge. Various computational methods have been developed to identify non-coding risk variants using genome-wide genomic and epigenomic profiling data. These methods do not distinguish risk variants associated with different diseases. Since different biological mechanisms are believed to contribute to the etiologies of different diseases, it is desirable to characterize the impact of a non-coding variant in a disease-specific manner. Here we describe DIVAN, a data-driven machine learning approach that aims to identify disease-specific risk variants. Using 1,806 epigenomic profiles across cell types and factors, along with other static genomic features, we adopt a novel feature selection based ensemble-learning framework to achieve this goal.

Name(s): Karl W Broman

Institution: University of Wisconsin-Madison, Department of Biostatistics and Medical Informatics, http://kbroman.org

Title of poster: Salvaging a genetics project:

Identifying and correcting sample mix-ups in high-dimensional data

Abstract: An intercross between inbred mouse strains can be used to identify genomic regions (called quantitative trait loci, QTL) that are associated with variation in a trait (e.g., of blood pressure). A key weakness of this approach is that one is generally left with very large regions containing many genes. One strategy to deal with this weakness is to also measure intermediate phenotypes, such as the mRNA expression of all genes in a relevant tissue. We then seek to identify genetic loci (called expression quantitative trait loci, eQTL) that affect mRNA expression, and to find genes for which genotype is associated with mRNA expression and also blood pressure. Keeping track of sample identifiers is critical in this sort of work: sample mix-ups in the genotypes, phenotypes, or mRNA expression data, will weaken the genotype/phenotype/mRNA associations. In a recent study with 500 intercross mice and gene expression microarray data on six tissues, we identified a large number of sample mix-ups (~18%) in the genotype data and a smaller number of mix-ups in each set of microarrays. To find and correct these problems, we made use of the fact that the expression of some genes is so strongly associated with genotype that the expression data can effectively serve as a DNA fingerprint for establishing individuals' identities.

Name(s): Tarneshia A. Hood

Institution: Alabama A&M University

Title of poster: "Statistical Analysis of STEM Associate and Bachelor graduates

Abstract: This paper discusses the enrollment and graduation rates of undergraduate college students seeking an Associate or Bachelor degree in the disciplines of science, technology, mathematics, and engineering (STEM). In addition, there was data collected and sorted by racial-ethnic and gender groups to create graphs. From the information in the graphs descriptive statistics were written and a regression analysis was performed. The data indicated that on an Associate degree level males outnumber females within STEM fields, Caucasians are the majority in STEM fields and American Indians are the minority. On a Bachelor degree level, females outnumber males within STEM fields, Caucasians are still the majority as well as American Indians being the minority in STEM fields.

Name(s): Gabrielle LaRosa and Radhika Trivedi

Institutions: University of Pittsburgh and Kean University

Title: Finding Predictors of Improved BRIEF Scores in Sleep Apnea Patients

Abstract: This study analyzes a subset of the data collected for the Childhood Adenotonsillectomy Trial (CHAT) with a response variable of the child's Behavior Rating Inventory of Executive Function (BRIEF) score based on teacher observations, and explanatory variables to assess the medical well-being of the child, such as blood pressure and BMI. Analyses, such as t-tests, were used to determine if the children in this data set, aged 5 to 9, had a significant difference in their change in BRIEF score over the course of 7 months based on being either in the early Adenotonsillectomy (eAT) or watchful waiting with supportive care (WWSC) group. Multiple linear regression was used to determine how accurately we are able to predict the child's change in BRIEF score, given certain explanatory variables are included in the model. We conclude that the baseline pulse pressure of the child (the difference between baseline systolic pressure and baseline diastolic pressure) is the only feature with a significant amount of explained variability in a multiple linear regression model, while study arm of the child did not explain much variability in the model for the change in BRIEF score.

Name(s): William Dula

Institutions: Morehouse College

Title: Detecting Bovine Lameness Using Three-Dimensional Limb Variable Analysis

Abstract: Lameness is a condition that affects livestock worldwide and can cause dairy cows to abandon their daily routine due to the pain caused by the condition. In this work we attempt to construct a classifier system to detect lameness from 76 variables that describe bovine movement. We use a novel methodology to transform this data and apply learning techniques to build a final model, where the selection criterion is the area under the Receiver Operating Characteristic curve. We end up with a system that classifies cows according to how lame they are with high specificity and sensitivity.

Name(s): Renee Dale

Institutions: Louisiana State University

Title: Bayesian Estimate of the Parameters of a Stochastic Differential Model of HIV Incidence in the United States

Abstract: Current estimates of the HIV epidemic indicate a decrease in the incidence of the disease in the undiagnosed subpopulation over the past 10 years. However, populations at high risk for contracting HIV are twice as likely to lack access to reliable medical care. In this paper, we consider three contributors to the HIV population dynamics: susceptible pool exhaustion, lack of access to care, and usage of anti-retroviral therapy (ART) by diagnosed individuals. We obtain conservative estimates for the proportional change of the infected subpopulations using hierarchical Bayesian statistics. The estimated proportional change is used to derive epidemic parameter estimates for a system of stochastic differential equations (SDEs).

Speakers, Participants and Key Personnel Bios

Welcome and Opening Remarks

Reneé H. Moore, Ph.D., is the Director of the Biostatistics Collaboration Core in the Rollins School of Public Health, Emory University. She earned a Bachelor of Science in mathematics and completed the secondary mathematics education program at Bennett College and earned her PhD in Biostatistics from Emory University. In her first faculty position at the University of Pennsylvania, Perelman School of Medicine, primary appointment in the Department of Biostatistics and Epidemiology and secondary appointment in the Department of Psychiatry, Dr. Moore was actively involved in designing and implementing clinical trials and was the faculty statistician in the Center for Weight and Eating Disorders. Next Dr. Moore taught up to seven classes per year and continued her obesity research at North Carolina State University, Department of Statistics. In 2015, Dr. Moore returned to Emory University as a Research Associate Professor in the Department of Biostatistics and Bioinformatics and as Director of the Biostatistics Collaboration Core. She spends her time mentoring, teaching, and collaborating with clinical investigators from Penn, Temple, UNC, Emory, and beyond. Dr. Moore is very active in both ENAR and ASA.

Lance A. Waller, Ph.D., is Rollins Professor and Chair of the Department of Biostatistics and Bioinformatics, Rollins School of Public Health, Emory University. He served on the National Academy of Science Committee on Applied and Theoretical Statistics for six years and recently joined the Board on Mathematical Sciences and Analytics. His research involves development of statistical methods for geographic data including applications in environmental justice, epidemiology, disease surveillance, spatial cluster detection, conservation biology, and disease ecology. His research appears in biostatistical, statistical, environmental health, and ecology journals and in the textbook *Applied Spatial Statistics for Public Health Data* (2004, Wiley).

Kimberly Jacob Arriola, Ph.D., MPH, is a Professor in the Department of Behavioral Sciences and Health Education. Her work focuses on studying social and behavioral factors that impact the health of marginalized populations and communities of color. She has led the development, implementation, and evaluation of culturally-sensitive interventions to improve public commitment to organ and tissue donation among African Americans and interventions that improve access to transplantation among African American end stage renal disease patients. In addition, she was recently funded to study the role of race-related stress in chronic kidney disease progression among African Americans. She also serves as Associate Dean for Academic Affairs for the Rollins School of Public Health and teaches in both the Masters and Doctoral programs in her department.

Keynote Speaker and Special Presenters

Brian A. Millen, Ph.D., is Senior Research Advisor within Lilly's Global Statistical Sciences department, where he provides statistical leadership for late-phase neuroscience programs. His research interests include multiple testing, methodology development to enable tailored therapies, and decision-theoretic applications to drug development. Committed to increasing diversity in the statistical sciences, Dr. Millen is an active contributor to ASA CMS initiatives. He served as chair of the ASA's Committee on Minorities in Statistics (2009-2012), launched the first JSM Diversity Workshop in 2009, chaired or co-chaired multiple StatFests (2007, 2010, 2013) and Workshops (2009, 2012, 2016). Dr. Millen serves on the Executive Committee of the ASA Biopharmaceutical Section. He holds a B.A. In Mathematics from the University of Georgia and Ph.D. in Statistics from The Ohio State University.
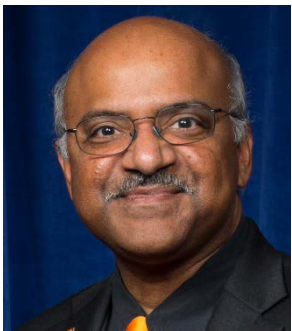
Sastry G. Pantula, **Ph.D.,** is a Professor in the Department of Statistics at Oregon State University. He is nationally and internationally recognized as a leader in statistical sciences. He has served as the dean of the College of Science for four years at Oregon State University from August 2013 to August 2017, after serving a three-year term as Director for the Division of Mathematical Sciences at the National Science Foundation. Pantula spent more than 30 years as a statistics professor at North Carolina State University (NCSU), where he began his academic career in 1982. At NCSU, he also served as the Director of Graduate Programs (1994-2002) and the Had of the Department of Statistics (2002-2010). He is a Fellow of the American Association for the Advancement of Science (AAAS) and the American Statistical Association (ASA). He served as ASA president in 2010 and received the ASA Founders Award in 2014. Pantula is a member of the honor societies Phi Kappa Phi, Sigma Xi and Mu Sigma Rho. He is also a member of the NCSU Academy of Outstanding Teachers.

Justine Herrera, M.A., holds a BA in Biology from the University of Virginia and holds an MA in Higher Postsecondary Education from Columbia University's Teacher's College. During her Master's program, she developed a passion for advising students and assisting them in reaching their educational, career, and personal goals. She embraced the opportunity to continue her work in higher education when she joined the Department of Biostatistics at Columbia University's Mailman School of Public Health. Since 2008, she has managed the department's academic programs and has represented the department at various School-level committees. One of Justine's proudest role is serving as the Administrative Director of the Biostatistics Epidemiology Summer Training (BEST) Diversity Program. BEST, which is supported by an NIH/NHLBI grant, introduces undergraduates from underrepresented populations to biostatistics and cardiovascular and pulmonary disease research. Students representing racial and ethnic minority groups, disadvantaged backgrounds, and students with disabilities join the Department of Biostatistics at Columbia University's Mailman School of Public Health's for eight weeks of research, training, academic and career planning, and social activities around New York City. Justine has worked with many of the BEST alumni to pursue a graduate degree in statistics and biostatistics.

Careers in Statistics Panel

Nancy Glenn Griesinger, Ph.D., is a Professor at Texas Southern University in Houston Texas. Her job duties are teaching, research, and service. She teaches both mathematics and statistics at the undergraduate and graduate level. Her research area of expertise is nonparametric statistics. Her service duties include various campus, national, and international committees and editorial boards. In addition to her full-time position as a professor, Dr. Griesinger also owns Mobile Math, LLC.—a mathematical tutoring and statistical consulting company. Mobile Math offers four main services, (1) STEM tutoring from grade school to graduate school (2) STEM degree consulting (3) Master's and Doctoral degree advising and (4) Corporate statistical consulting. Her university website is http://mathematics.tsu.edu and her business website is http://mobilemathlab.com.

Knashawn H. Morales, Ph.D., is an Associate Professor of Biostatistics in the Department of Biostatistics, Epidemiology and Informatics at the Perelman School of Medicine. She received her Bachelor's in Mathematics in 1995 from Hampton University and received a doctorate in Biostatistics in 2001 from Harvard School of Public Health. After two years as a Research Scientist at the New England Research Institutes, Dr. Morales joined the University of Pennsylvania. She collaborates with investigators on research with a primary focus in mental health and behavioral modification interventions for asthma, insomnia, weight management, and HIV/STD risk reduction. Her methodological experience includes longitudinal data analysis, latent variable modeling, and categorical data analysis.

Michael M. Thomas, M.S., is a Performance Analyst working for the Georgia Department of Behavioral Health and Developmental Disabilities. He graduated from Kennesaw State University's Honors Program with a BS in Mathematics, minoring in Applied Statistics and Computer Science in 2014. Michael also received an MS in Biostatistics from the Drexel University Dornsife School of Public Health in 2016. During his time at Drexel, he contributed to projects which informed autism policy in Pennsylvania as a statistical programmer at Autism Services, Education, Resources, and Training. Michael has also participated in undergraduate and graduate research projects involving probability and epidemiology. He worked as a tutor for high school and college students and volunteered as a mentor in Mastery Charter School's Internship Program. Michael's primary academic interests are statistical programming languages and health of intellectual and developmental disability populations.

Albert Y. Kim, Ph.D., is a Lecturer in Statistics in the Mathematics & Statistics Department at Amherst College in Amherst, MA. Prior to joining Amherst College, he was a Decision Support Engineering Analyst in the AdWords division of Google Inc, a Visiting Assistant Professor of Statistics at Reed College, and an Assistant Professor of Statistics at Middlebury College. His scholarly interests include forest ecology, statistics and data science education, and spatial epidemiology.

Vanessa Brown, M.S., is a Credit Risk Analyst for Suntrust Bank. She received her BS in Mathematics (2003) and an MS in Statistics (2005) from the University of South Carolina. After graduation she worked as a Statistical Analyst with Palmetto GBA focusing Medicare data and fraudulent billing. Afterwards, as an Analyst at MasterCard focusing on campaign targeting to drive usage and preference of the MasterCard brand. For the last eight years she has worked as a Credit Risk Analyst for SunTrust bank. Her current role entails analyzing risk profiles and product performance for mortgage and other consumer lending.

Statistics Careers at CDC

Simone Gray, Ph.D., is a Senior Statistician at the Centers for Disease Control and Prevention in the Division of Cancer Prevention and Control. At the CDC, Dr. Gray works on projects related to surveillance, recurrence, and survivorship of cancer as well as program evaluation. She received her PhD in Statistics from Duke University and also holds a BS and MS in Mathematics from Palm Beach Atlantic University and the University of Miami, respectively.

Erica L. Dawson, Ph.D., is a second year Epidemic Intelligence Service officer in the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention at the Centers for Disease Control and Prevention. She holds a BS in Mathematics from Fort Valley State University, a MA in Mathematics from the University of Northern Iowa, a MS in Statistics from Iowa State University, and a PhD in Biostatistics from The University of Alabama at Birmingham. Dr. Dawson has previous research experience in cardiovascular disease, and is passionate about disease prevention and promoting healthier lifestyles. Her current research interests involve HIV retention in care and HIV pre- and post-exposure prophylaxis awareness and use among priority populations.

Denise Bradford, M.S., is a Statistician the Center for Disease Control and Prevention (CDC). She received her BS and MS in Statistics at the Purdue University. After graduation, she began working as a Health Research Analyst at the Center for Disease Control and Prevention (CDC) as a contractor with Northrop Grumman where she analyzed survey data for the largest RDD collected survey. She is currently working with YRBS in the Adolescent and School Health. Outside of her employment, she has used his skills in a pro bono capacity for the Westlake High School NSBE Jr. Chapter and Varsity Basketball Teams, which is her alma mater. Additionally, she is lecturing at Emory University for first year MPH students.

Darius McDaniel, MSPH, is a Biostatistician at the CDC in Atlanta, GA. Prior to this position, he achieved a BS in Mathematics and Applied Statistics from Alabama A&M University. After graduating in 2012, Mr. McDaniel worked as a data analyst at the School of Nursing Biostatistics Consulting Unit at UPenn. He later attended Emory University, where he worked as a statistical programmer on various infectious disease studies in South Africa. He graduated with his MSPH in Informatics in 2015.

Graduate Programs Panel

Adriana Pérez, Ph.D., is an Associate Professor in the Department of Biostatistics and Data Science at the University of Texas Health Science Center at Houston. Dr Pérez has engaged in a wide range of research projects: theoretical model evaluation accounting for imputation uncertainty, fitting complex data, analysis of cluster randomized community trials, clinical trials and analysis of food intake involving measurement error. Dr Pérez patented sample size and power estimation software in Spanish available in Latinomerica. She plays a crucial role in designing studies that are representative of the population of interest, developing sampling weights to extrapolate to the entire population and conducting complex data analyses. She helps researches to understand and implement appropriate methods for handling missing data in different projects. She served as one of the lead statistician for cross-sectional and longitudinal analyses, and for the largest clinical trial of early patients with Parkinson disease in the USA and Canada. She is interested in Hispanic research as well as diversity of biostatistics. Dr Pérez is an active member of the International Biometric Society and the ASA. She has held numerous elected positions in several professional organization including co-chairing ENAR's diversity workshop from 2009-2011 and serving as NIH permanent study section member (MRS) from 2011-2017. She is currently a member of the committee on minorities in statistics from the American Statistical Association.

Nalini Ravishanker, Ph.D., is a professor and undergraduate program director in the Department of Statistics at the University of Connecticut, Storrs. Her current research interests include time series and times-to-events analysis, Bayesian dynamic modeling, signal processing, and predictive inference. Her primary interdisciplinary research involves problems in biology, biomedicine, climate, finance, marketing, and transportation engineering. She has an undergraduate degree in statistics from Presidency College, Chennai, India, and a PhD in statistics and operations research from the Stern School of Business, New York University. She has over 75 publications, has co-authored a textbook *A First Course in Linear Model Theory*, and is co-editor of the *Handbook of Discrete-Valued Time Series,* both published by Chapman & Hall/CRC. She is a fellow of the American Statistical Association, an elected member of the International Statistical Institute, and an elected member of the CT Academy of Science and Engineering. She is President-elect of the International Society for Business and Industrial Statistics (ISBIS). She has served as the theory and methods editor of *Applied Stochastic Models in Business and Industry,* and as an associate editor for *The American Statistician*. She is currently co-editor-in-chief of the *International Statistical Review* and an associate editor for the *Journal of Forecasting*. She serves as the faculty coordinator in Statistics for UConn's Early College Experience (ECE) concurrent enrolment program for CT high schools, and is involved in UConn's pre-college summer programs for high school students.
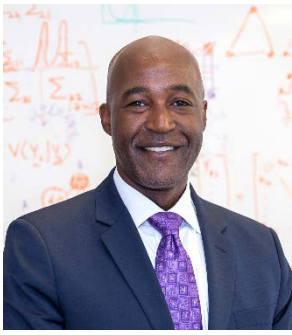
Dubois Bowman, Ph.D., serves as Chairman and the Cynthia and Robert Citrone – Roslyn and Leslie Goldstein Professor in the Department of Biostatistics at Columbia University's Mailman School of Public Health. He is a leading scholar in the statistical analysis of brain imaging data and other complex, large-scale data sets. He has built an active research program targeting numerous areas including Parkinson's disease, Alzheimer's disease, depression, schizophrenia, addiction, and aging, among others. Dr. Bowman leads a department at Columbia with exciting research strengths in analytic capabilities for big data– for instance, derived from hospital records, smart phones, satellites, genomics, and brain imaging scanners. Throughout his career, he has maintained a commitment to increasing diversity in the field of statistics. Previously, Dr. Bowman was a tenured Professor of Biostatistics and Bioinformatics at Emory University and the founding Director of the Center for Biomedical Imaging Statistics.   He also served as President of the Eastern North American Region (ENAR) of the International Biometric Society and is a Fellow of the American Statistical Association. Dr. Bowman received his B.S. degree in Mathematics from Morehouse College, M.S. in Biostatistics from the University of Michigan, and Ph.D. in Biostatistics from the University of North Carolina.

Zhaohui (Steve) Qin, Ph.D., is an Associate Professor of Biostatistics and Bioinformatics at Emory University. He completed a BS degree in Probability and Statistics at Peking University and MS and PhD degrees in Statistics at the University of Michigan. In addition, he was a Postdoctoral Fellow at Harvard University in the Department of Statistics. The major goal of Dr. Qin's work is to utilize his extensive background in statistics to provide analytical tools for the genetics and genomics research community. His current research focuses on topics such as developing and evaluating model-based methods to analyze high-throughput genomics and epigenomics data from ChIP-Seq, RNA-Seq, and Hi-C experiments, biological BigData integration and mining, and Bayesian approaches and statistical computing. In addition to method development, he has collaborated extensively with biologists to assist their efforts of identifying novel biological insights from their experimental data.

The Graduate Experience Panel

Jemar Bather is a second-year master's degree candidate in NYU's Applied Statistics program. He received his bachelor's degree in statistics with a concentration in biostatistics from the Penn State University. Jemar recently completed a research internship at NYU Langone Medical Center's Department of Population Health where he studied food policy and health disparities. His current research position in the Measurement, Learning, and Evaluation Lab at NYU College of Global Public Health focuses on understanding the social risk factors that contribute to health disparities in urban areas. After completing his masters, Jemar plans to pursue a PhD in Biostatistics to continue and expand his research with the purpose of improving health in minority and medically underserved communities.

Dominique McDaniel, M.S., is a PhD student in Statistics and Purdue Doctoral Fellow at Purdue University. Dominique completed her undergraduate studies in Mathematics at Cheyney University of Pennsylvania. She also holds a Masters of Science degree from West Chester University. Prior to starting her doctoral studies, Dominique worked in pharmaceutical industry at Eli Lilly & Company in Indianapolis, IN. Dominique's research interests include Bayesian & Spatial Statistics, Clinical- Trial Development, and Causal Inference.

Brittany Green, M.S., is a doctoral student in business analytics and statistics at the University of Cincinnati, Carl H. Linder School of Business. Her research interests are problems in high-dimensional longitudinal data analysis, machine learning with longitudinal data and data mining. She obtained a bachelor's in mathematics with computer science minor from Birmingham-Southern College. She also received a master's in industrial engineering from Auburn University and a master's in industrial engineering with a focus in operations research from the University of Pittsburgh.

Brittney Bailey is a PhD student in the Interdisciplinary PhD Program in Biostatistics at The Ohio State University. Her research interests include the analysis of clinical trials with nested designs and methods for handling missing data in these designs. She expects to graduate in May 2018 and would like to pursue a tenure-track faculty position.

Raphiel Murden, M.S., is a PhD student at Emory University. He hails from Memphis, TN. His love for quantitative sciences was first nurtured by his high school Calculus teacher. It flourished more as he matriculated through Morehouse College; where he earned a BA in Mathematics in 2008. Statistics became the focus of this affinity while studying for his Master's degree at Washington University in St. Louis. After finishing that program, Mr. Murden began his career in academia as a full-time mathematics instructor at Allen University and later Spelman College. Currently, he is completing his PhD in Biostatistics at Emory University and plans to return to academia when done.

Professionals Panel

Catherine Case, Ph.D., is a lecturer in the Department of Statistics at the University of Georgia. Prior to joining the faculty at UGA, she completed her graduate studies at the University of Florida, earning a master's degree in statistics and a Ph.D. in statistics education. Catherine was part of the author team for the *Statistical Education of Teachers* report – a recommendations document commissioned by the ASA – and she has worked with the ASA on the poster/project competition, Meeting Within a Meeting, and other activities. She has also worked with Dr. Tim Jacobbe on the LOCUS project – an NSF-funded grant to develop an assessment of conceptual understanding in statistics.

Organizing Committee

Reneé Moore – Emory University (Chair) – See bio above.
Darius McDaniel – Center for Disease Control and Prevention – See bio above.
Nancy G. Griesinger – Texas Southern University– See bio above.
Adriana Perez – University of Texas – See bio above.
Michael Thomas – Georgia Department of Behavioral Health and Developmental Disabilities – See bio above.

Dr. Nagambal Shah is Emerita professor of the Department of Mathematics at Spelman College where she served over four decades. She is the founder of the StatFest Conference. Dr. Shah is a Fellow of the American Statistical Association.

Jesse Chittams is the Managing Director**,** Biostatistics Consulting Unit, Office of Nursing Research, University of Pennsylvania. He currently serves as Chair of the ASA Committee on Minorities in Statistics, joined the University of Pennsylvania in 1994 after graduating with a degree in Mathematical Statistics from the University of Maryland. With over 20 years of experience, Mr. Chittams has acquired considerable expertise in data management and statistical analysis through his managerial roles at several data coordinating centers. Currently, Mr. Chittams is the Managing Director of the Biostatistics Consulting Unit (BECCA Lab) within the University of Pennsylvania. Furthermore, Mr. Chittams also has significant experience in mentoring high school students, undergraduate, and graduate students one-on-one through the Diversity Initiative in Research for Underrepresented Minorities (DRUM) program that he initiated in 2001. Throughout his career, he has helped to train over 100 interns in statistics.

Felicia R. Griffin, Ph.D., is an Assistant Professor in the Department of Mathematics at Winston-Salem State University. Dr. Griffin received her BA in Mathematics from Albany State University (2010) and her Ph.D. in Biostatistics from Florida State University (2015). Prior to joining Winston-Salem State University, Dr. Griffin worked as a Mathematical Statistician at the Center for Drug Evaluation and Research at FDA, Division of Biometrics IV. Her research interests include design and analysis of clinical trials, aging, survival analysis, latent class analysis, and the study of rare infectious diseases. Dr. Griffin is passionate about increasing the exposure of statistics and biostatistics among students in underrepresented populations. She currently serves on the Executive Committee for the ENAR Fostering Diversity in Biostatistics Workshop.

Nicholas Horton, Ph.D., is Professor of Statistics at Amherst College, with methodologic research interests in longitudinal regression models, missing data methods, and statistical computing. He graduated from the Harvard TH Chan School of Public Health. Nick has received a number of awards including the ASA's Founders Award, the Waller Education Award, the William Warde Mu Sigma Rho Education Award, and the MAA Hogg Award for Excellence in Teaching. He has published more than 160 papers and co-authored a series of four books on statistical computing and data science. He is a Fellow of the ASA, served as a member of the ASA Board, chairs the Committee of Presidents of Statistical Societies, is the past-chair of the ASA Section on Statistical Education, and serves as a member of three working groups at the National Academy of Sciences.

Dionne Swift, Ph.D., is a Principal Statistician at Proctor and Gamble. Dionne Swift joined Procter and Gamble as a Statistician shortly after receiving her Ph.D. in mathematical statistics from The Ohio State University in 2000. She has worked with engineers and scientists in the Corporate Research and Fabric & Home Care business units. Currently, Dr. Swift provides essential statistical consultation on study design, analysis strategy and interpretation results for Global Biotechnology Capability organization and Life Sciences Technology Platform. She has extensive background and experience with statistical design, test method development and validations (i.e., GR&R's), statistical modeling and simulation in variety of areas – products development research, consumer research, image analysis and genomics. Her research interests include experimental design, multivariate analyses, prediction and classification methods, and statistical methods in genomics, proteomics, and metabonomics. She is also very active in the statistical community and currently serves as an Executive Committee member of the ASA Biopharmaceutical Section and member of the ASA Committee on Minorities. She is currently serves as a Committee member of the ASA Committee on Minorities and Vice-Chair of the CMS Diversity Mentoring Program.

Mary Miller, M.S., is a young professional who is currently working in the pharmaceutical industry at Eli Lilly and Co. as a Sr. Statistician in the Oncology Business Unit. She obtained her BA in mathematics from Bryn Mawr College and MS in biostatistics from the Dana and David Dornsife School of Public Health at Drexel University. She is an active member of ASA as well as an executive board member for the section for statistical programmers and analysts (SSPA). Her interests include exploratory data analysis, experimental design and working with students that have a passion for exploring careers in applied math and data analytics.

Adrian Coles, Ph.D., is a Statistical Research Scientist at Duke Clinical Research Institute. In this role, Dr. Coles collaborates with clinical investigators from multiple therapeutic groups to help design clinical studies. In addition to designing studies, one of his primary roles as a statistical investigator is to lead teams of junior statisticians and programmers through the operational phases of funded studies. Complementing his work as a clinical researcher, Dr. Coles is also an instructor in Duke University's Department of Biostatistics and Bioinformatics where he teaches survival analysis to graduate students. He holds an MS and a PhD in statistics from North Carolina State University, where he was the first African-American male to earn a doctorate from the time-honored program. Dr. Coles participates in multiple initiatives that serve underrepresented groups in his profession, in his community, and in his workplace.

Local Organizing Committee

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- *Raphiel Murden* - Emory University
- *Mary Abosi* - Emory University
- *Lance Waller* - Emory University
- *Young Moo Daniel Yoo*, Emory University
- *Kingsley Iyawe*, Morehouse College
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