

BYRON C. JAEGER

I am an Assistant Professor of Biostatistics and work in the School of Public Health at the University of Alabama at Birmingham.

My research focuses on blood pressure, cardiovascular disease, and machine learning.



EDUCATION

2017
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2012

- **PhD, Biostatistics**
Gilling's School of Global Public Health 📍 Chapel Hill, North Carolina
 - Thesis: [Extending R-squared to the Generalized Linear Mixed Model](#)
 - Honors: Recipient of ENAR Distinguished Student Paper Award
- **BS, Mathematics**
Furman University 📍 Greenville, South Carolina
 - Thesis: Modeling three-dimensional pathways for the [Tsunami Bar](#)
 - Honors: Recipient of DeLany Medal for Excellence in Mathematics

PROFESSIONAL EXPERIENCE

Present
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2017

- **Assistant Professor of Biostatistics**
University of Alabama at Birmingham 📍 Birmingham, Alabama
 - Investigating mechanisms of cardiovascular disease and hypertension
 - developing machine learning algorithms to identify who may benefit from initiating antihypertensive medications
- **Adjunct Professor of Statistics**
North Carolina Central University 📍 Durham, North Carolina
 - Undergraduate and graduate instructor in biostatistics and statistical learning
- **Graduate Teaching Assistant**
Gilling's School of Global Public Health 📍 Chapel Hill, North Carolina
 - Intro to Biostatistics and Longitudinal Data Analysis
 - Statistics Tutor, School of Nursing
- **Graduate Research Assistant**
Gilling's School of Global Public Health 📍 Chapel Hill, North Carolina
 - [China Health and Nutrition Survey](#)
 - [Sheps Center](#)
 - [Big Data to Knowledge Awardee](#)

2017
|
2016

2017
|
2014

2017
|
2012

CONTACT

- bjaeger@uab.edu
[GitHub](#)
[Twitter](#)

SKILLS

Statistical analysis:

Linear mixed models
Survival analysis

Statistical / Machine learning:

Clinical risk prediction
Missing data

Statistical Programming:

R
C++

STATS

Citations: 950
Papers: 50 (12 first author)
CRAN downloads: 55,260
Active grants: 8

This resume was made with the R package [pagedown](#).



TEACHING EXPERIENCE

Present
|
2017

- **BST 680: Introduction to R**

University of Alabama at Birmingham

- Students develop core competencies in data analysis (import, clean, transform, visualize, and tabulate) using R.
- Course structure promotes interactive lectures and group exercises.
- Final exam: a comprehensive research project using R markdown.

Present
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2020

- **BST 765: Advanced computational methods**

University of Alabama at Birmingham

- Introduction to computational techniques such as simulation studies, bootstrapping, cross-validation, permutations, and Gibbs sampling.
- Co-instructor with Dr. Charles Katholi



PUBLICATIONS

2021

- **Reasons for Uncontrolled Blood Pressure Among US Adults: Data From the US National Health and Nutrition Examination Survey**

S Sakhija, CL Colvin, OP Akinyelure, **BC Jaeger**, K Foti, S Oparil,
Hypertension, 78 (5), 1567-1576

- Citations: 0
- DOI: 10.1161/HYPERTENSIONAHA.121.17590

2021

- **Age-specific prevalence and factors associated with normal blood pressure among US adults**

P Muntner, **BC Jaeger**, ST Hardy, K Foti, K Reynolds, PK Whelton,
American journal of hypertension, hpab154

- Citations: 0
- DOI: 10.1093/ajh/hpab154

2021

- **Improving outcome predictions for patients receiving mechanical circulatory support by optimizing imputation of missing values**

BC Jaeger, R Cantor, V Sthanam, R Xie, JK Kirklin, R Rudraraju
Circulation: Cardiovascular Quality and Outcomes, 14 (9), e007071

- Citations: 1
- DOI: 10.1161/CIRCOUTCOMES.120.007071

2021

- **Racial Differences in Blood Pressure Control Following Stroke: The REGARDS Study**

OP Akinyelure, **BC Jaeger**, TL Moore, D Hubbard, S Oparil, VJ Howard,
....

Stroke, STROKEAHA, 120.033108

- Citations: 0
- DOI: 10.1161/STROKEAHA.120.033108

- 2021 ● Predicted cardiovascular risk for United States adults with diabetes, chronic kidney disease, and at least 65 years of age.
BC Jaeger, S Sakuja, ST Hardy, OP Akinyelure, JD Bundy, P Muntner,
Journal of Hypertension, epub
• Citations: 0
• DOI: 10.1097/HJH.0000000000002982
- 2021 ● Number and timing of ambulatory blood pressure monitoring measurements
BC Jaeger, OP Akinyelure, S Sakuja, JD Bundy, CE Lewis, Y Yano,
Hypertension Research, 44207
• Citations: 1
• DOI: 10.1038/s41440-021-00717-y
- 2021 ● Lifestyle behaviors among adults recommended for ambulatory blood pressure monitoring according to the 2017 ACC/AHA blood pressure guideline
LP Cohen, D Hubbard, CL Colvin, BC Jaeger, B Poudel, M Abdalla,
American Journal of Hypertension, hpab110
• Citations: 0
• DOI: 10.1093/ajh/hpab110
- 2021 ● Subcortical short term plasticity elicited by deep brain stimulation
MZ Awad, RJ Vaden, ZT Irwin, CL Gonzalez, S Black, A Nakhmani,
Annals of clinical and translational neurology, 8 (5), 1010-1023
• Citations: 0
• DOI: 10.1002/acn3.51275
- 2021 ● Maintaining Normal Blood Pressure Across the Life Course: The JHS
ST Hardy, S Sakuja, BC Jaeger, S Oparil, OP Akinyelure, TM Spruill,
Hypertension, 77 (5), 1490-1499
• Citations: 2
• DOI: 10.1161/HYPERTENSIONAHA.120.16278
- 2021 ● Association Between Ambulatory Blood Pressure and Coronary Artery Calcification: The JHS
Y Zhang, JE Schwartz, BC Jaeger, J An, BK Bellows, D Clark III,
Hypertension, 77 (6), 1886-1894
• Citations: 0
• DOI: 10.1161/HYPERTENSIONAHA.121.17064
- 2021 ● Development and Validation of Machine Learning-Based Race-Specific Models to Predict 10-Year Risk of Heart Failure: A Multi-Cohort Analysis
MW Segar, BC Jaeger, KV Patel, V Nambi, CE Ndumele, A Correa,
Circulation, 143:2370–2383
• Citations: 6
• DOI: 10.1161/CIRCULATIONAHA.120.053134

- 2021
- **Trends in Blood Pressure and Hypertension Among US Children and Adolescents, 1999–2018**
ST Hardy, S Sakuja, **BC Jaeger**, EM Urbina, SF Suglia, DI Feig,
JAMA network open, 4 (4), e213917-e213917
 - Citations: 1
 - DOI: 10.1001/jamanetworkopen.2021.3917
- 2021
- **Development and validation of optimal phenomapping methods to estimate long-term atherosclerotic cardiovascular disease risk in patients with type 2 diabetes**
MW Segar, KV Patel, M Vaduganathan, MC Caughey, **BC Jaeger**, ...
Diabetologia, 64(7):1583-1594
 - Citations: 1
 - DOI: 10.1007/s00125-021-05426-2
- 2021
- **Frailty and Post-Hospitalization Outcomes in Patients with Heart Failure with Preserved Ejection Fraction**
P Goyal, B Yum, P Navid, L Chen, DH Kim, J Roh, **BC Jaeger**, EB Levitan
The American Journal of Cardiology, 148:84-93
 - Citations: 1
 - DOI: 10.1016/j.amjcard.2021.02.019
- 2021
- **Resveratrol and exercise combined to treat functional limitations in late life: A pilot randomized controlled trial**
SA Harper, JR Bassler, S Peramsetty, Y Yang, **BC Jaeger**, ...
Experimental gerontology, 143, 111111
 - Citations: 1
 - DOI: 10.1016/j.exger.2020.111111
- 2020
- **Twenty-Five-Year Changes in Office and Ambulatory Blood Pressure: Results from the Coronary Artery Risk Development in Young Adults (CARDIA) Study**
JD Bundy, **BC Jaeger**, MD Huffman, SS Knox, SJ Thomas, ...
American journal of hypertension, epub
 - Citations: 1
 - DOI: 10.1093/ajh/hpaa189
- 2020
- **Cardiovascular Health and Transition From Controlled Blood Pressure to Apparent Treatment Resistant Hypertension**
OP Akinyelure, S Sakuja, CL Colvin, D Clark III, **BC Jaeger**, ...
Hypertension, 76 (6), 1953-1961
 - Citations: 0
 - DOI: 10.1161/HYPERTENSIONAHA.120.15890

- 2020 ● **Estimated Prevalence of Masked Asleep Hypertension in US Adults**
S Li, JE Schwartz, D Shimbo, P Muntner, **BC Jaeger**, ...
JAMA cardiology, epub
• Citations: 1
• DOI: 10.1001/jamacardio.2020.5212
- 2020 ● **Resveratrol and exercise combined to treat functional limitations in late life: A pilot randomized controlled trial**
SA Harper, JR Bassler, S Peramsetty, **BC Jaeger**, ...
Experimental gerontology, 111111
• Citations: 1
• DOI: 10.1016/j.exger.2020.111111
- 2020 ● **When to Impute? Imputation before and during cross-validation**
BC Jaeger, NJ Tierney, NR Simon
ArXiv, 2010.00718
Citations: 1
- 2020 ● **Underutilization of Treatment for Black Adults With Apparent Treatment-Resistant Hypertension**
AT Langford, OP Akinyelure, G Howard, **BC Jaeger**, ...
Hypertension, 120.14836
• Citations: 3
• DOI: 10.1161/HYPERTENSIONAHA.120.14836
- 2020 ● **Trends in blood pressure control among US adults with hypertension, 1999–2000 to 2017–2018**
P Muntner, ST Hardy, LJ Fine, **BC Jaeger**, ...
JAMA, 324 (12), 1190-1200
• Citations: 139
• DOI: 10.1001/jama.2020.14545
- Impact metrics (In the top 5% of all research outputs scored by Altmetric)
- 2020 ● **The Use of Statistical Learning in Pediatric Research**
BC Jaeger
Journal of Pediatrics, epub
• Citations: 0
• DOI: 10.1016/j.jpeds.2020.04.005
- 2020 ● **Using Predicted Atherosclerotic Cardiovascular Disease Risk for Discrimination of Awake or Nocturnal Hypertension.**
S Sakhuja, JN Booth III, DE Anstey, **BC Jaeger**, ...
American Journal of Hypertension, epub
• Citations: 2
• DOI: 10.1093/ajh/hpaa099

- 2020
- **Factors associated with breast cancer screening behaviors in a sample of Jamaican women in 2013**
N Balas, H Yun, **BC Jaeger**, M Aung, PE Jolly
Women & Health, 8-Jan
 - Citations: 0
 - DOI: 10.1080/03630242.2020.1789260
- 2020
- **Deep neural network analyses of spirometry for structural phenotyping of chronic obstructive pulmonary disease**
S Bodduluri, A Nakhmani, JM Reinhardt, **BC Jaeger**, ...
JCI insight, 5(13)
 - Citations: 0
 - DOI: 10.1172/jci.insight.132781
- 2020
- **Association of Sleep Characteristics With Nocturnal Hypertension and Nondipping Blood Pressure in the CARDIA Study**
SJ Thomas, JN Booth, **BC Jaeger**, D Hubbard, ...
Journal of the American Heart Association, 9(7), e015062
 - Citations: 0
 - DOI: 10.1161/JAHA.119.015062
- 2020
- **Improving Mortality Predictions for Patients with Mechanical Circulatory Support Using Follow-Up Data and Machine Learning**
BC Jaeger, RS Cantor, V Sthanam, R Rudraraju
Circulation: Genomic and Precision Medicine, 13(4), e002877
 - Citations: 0
 - DOI: 10.1161/CIRCGEN.119.002877
- 2020
- **Morning Blood Pressure Surge and Cardiovascular Disease Events and All-Cause Mortality in Blacks: The Jackson Heart Study**
JN Booth, **BC Jaeger**, L Huang, M Abdalla, ...
Hypertension, 75(3), 835-843
 - Citations: 0
 - DOI: 10.1161/HYPERTENSIONAHA.119.14233
- 2020
- **Development of Predictive Equations for Nocturnal Hypertension and Nondipping Systolic Blood Pressure**
BC Jaeger, JN Booth III, M Butler, LJ Edwards, ...
Journal of the American Heart Association, 9 (2), e013696
 - Citations: 6
 - DOI: 10.1161/JAHA.119.013696
- 2019
- **Wearable Technology To Reduce Sedentary Behavior And CVD Risk In Older Adults: A Pilot Randomized Clinical Trial**
LM Roberts, **BC Jaeger**, LC Baptista, SA Harper, ...
Clinical Interventions in Aging, Volume 2019:14 Pages 1817-1828
 - Citations: 0
 - DOI: 10.2147/CIA.S222655

- 2019 ● **Oblique Random Survival Forests**
BC Jaeger, DL Long, DM Long, M Sims, JM Szychowski, ...
Annals of Applied Statistics, 3 (2019), 1847-1883
• Citations: 4
• DOI: 10.1214/19-AOAS1261
- 2019 ● **Prediabetes and Risk for Cardiovascular Disease by Hypertension Status in Black Adults: The Jackson Heart Study**
D Hubbard, LD Colantonio, AP Carson, S Sakuja, BC Jaeger, ...
Diabetes Care, c191074
• Citations: 21
• DOI: 10.2337/dc19-1074
- 2019 ● **Associations of awake and asleep blood pressure and blood pressure dipping with abnormalities of cardiac structure: The CARDIA study**
NA Bello, BC Jaeger, JN Booth., M Abdalla, DE Anstey, ...
Journal of Hypertension, epub
• Citations: 8
• DOI: 10.1097/HJH.0000000000002221
- 2019 ● **Prevalence of Activity Limitations and Association with Multimorbidity Among US Adults 50 to 64 Years Old**
CB Bowling, L Deng, S Sakuja, MC Morey, BC Jaeger, P Muntner
Journal of general internal medicine, pages 1-7
• Citations: 12
• DOI: 10.1007/s11606-019-05244-8
- 2019 ● **Association of Daytime and Nighttime Blood Pressure With Cardiovascular Disease Events Among African American Individuals**
Y Yano, RM Tanner, S Sakuja, BC Jaeger, ...
JAMA cardiology, 4 (9), 910-917
• Citations: 17
• DOI: 10.1001/jamacardio.2019.2845
- 2019 ● **Association of Region and Hospital and Patient Characteristics with Use of High-Intensity Statins after Myocardial Infarction among Medicare Beneficiaries**
V Bittner, LD Colantonio, Y Dai, M Woodward, BC Jaeger, ...
JAMA Cardiology, 4 (9), 865-872
• Citations: 12
• DOI: 10.1001/jamacardio.2019.2481
- 2019 ● **Sex Differences in Masked Hypertension: The Coronary Artery Risk Development in Young Adults Study**
DN Pugliese, JN Booth III, L Deng, DE Anstey, BC Jaeger, ...
Journal of Hypertension, epub
• Citations: 3
• DOI: 10.1097/HJH.0000000000002175

- 2019 ● **Blood-Flow Restriction Resistance Exercise for Older Adults with Knee Osteoarthritis: a Pilot Randomized Clinical Trial**
SA Harper, LM Roberts, AS Layne, **BC Jaeger**, AK Gardner, ...
Journal of Clinical Medicine, 8 (2), 265
• Citations: 35
• DOI: 10.3390/jcm8020265
- UAB SOPH featured article
- 2019 ● **Multimodal Intervention to Improve Functional Status in Hypertensive Older Adults: a Pilot Randomized Controlled Trial**
LC Baptista, **BC Jaeger**, SD Anton, AA Bavry, EM Handberg, ...
Journal of Clinical Medicine, 8 (2), 196
• Citations: 5
• DOI: 10.3390/jcm8020196
- UAB SOPH featured article
- 2019 ● **Race and Sex Differences in Asleep Blood Pressure: The Coronary Artery Risk Development in Young Adults (CARDIA) Study**
JN Booth, DE Anstey, NA Bello, **BC Jaeger**, DN Pugliese, ...
The Journal of Clinical Hypertension, 21 (2), 184-192
• Citations: 14
• DOI: 10.1111/jch.13474
- 2019 ● **An R-squared Statistic for Covariance Model Selection in the Linear Mixed Model**
BC Jaeger, LJ Edwards, MJ Gurka
Journal of Applied Statistics, 46 (1), 164-184
• Citations: 4
• DOI: 10.1080/02664763.2018.1466869
- ENAR Distinguished Student Paper Award
- 2019 ● **Out-of-Clinic Sympathetic Activity is Increased in Patients with Masked Uncontrolled Hypertension**
M Siddiqui, EK Judd, **BC Jaeger**, H Bhatt, T Dudenbostel, B Zhang, ...
Hypertension, 73 (1), 132-141
• Citations: 16
• DOI: 10.1161/HYPERTENSIONAHA.118.11818
- 2019 ● **CVD and Mortality in Adults Aged 60+ Years According to Recommendations by the ACC/AHA and ACP/AAFP**
BC Jaeger, DE Anstey, AP Bress, JN Booth III, M Butler, D Clark III, ...
Hypertension, 73 (2), 327-334
• Citations: 8
• DOI: 10.1161/HYPERTENSIONAHA.118.12291
- 2018 ● **Low Agreement Between Modified-Schwartz and CKD-EPI eGFR in Young Adults: a Retrospective Longitudinal Cohort Study**
M Webster-Clark, **BC Jaeger**, Y Zhong, G Filler, A Alvarez-Elias, ...
BMC Nephrology, 19 (1), 194
• Citations: 5
• DOI: 10.1186/s12882-018-0995-1

- 2018
- **Impact of Bladder Cancer on Health Related Quality of Life**
AB Smith, **BC Jaeger**, LC Pinheiro, LJ Edwards, HJ Tan, ME Nielsen, ...
BJU International, 121 (4), 549-557
 - Citations: 72
 - DOI: 10.1111/bju.14047
- 2018
- **Assessing Responsiveness over Time of the PROMIS Pediatric Symptom and Function Measures in Cancer, Nephrotic Syndrome, and Sickle Cell Disease**
BB Reeve, LJ Edwards, **BC Jaeger**, PS Hinds, C Dampier, DS Gipson, ...
Quality of Life Research, 27 (1), 249-257
 - Citations: 32
 - DOI: 10.1007/s11136-017-1697-z
- 2017
- **An R-squared Statistic for Fixed Effects in the Generalized Linear Mixed Model**
BC Jaeger, LJ Edwards, K Das, & PK Sen
Journal of Applied Statistics, 44 (6), 1086-1105
 - Citations: 221
 - DOI: 10.1080/02664763.2016.1193725
- 2016
- **Responsiveness of PROMIS Pediatric Measures to Hospitalizations for Sickle Pain and Subsequent Recovery**
C Dampier, **BC Jaeger**, HE Gross, V Barry, L Edwards, Y Lui, ...
Pediatric Blood & Cancer, 63 (6), 1038-1045
 - Citations: 44
 - DOI: 10.1002/pbc.25931
- 2014
- **Enumerating Graph Depletions**
BC Jaeger & TM Lewis
Online Journal of Analytic Combinatorics, 9, 1-17
 - Citations: 0



R PACKAGES

- 2021 | 2020
- **table.glue**
Make and Apply Customized Rounding Specifications for Tables
 - [GitHub Repository](#)
 - Total downloads: 4,531
- 2021 | 2018
- **obliqueRSF**
Oblique random survival forest (ORSFs)
 - [GitHub Repository](#)
 - Total downloads: 16,245

BJUI International Article of the Week

2021
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2016

- **r2glmm**
Compute model and semi-partial R-squared for mixed models
 - [GitHub Repository](#)
 - Total downloads: 34,484
 - Total citations: 182

≡ PRESENTATIONS

- 2019
- **Novel 24-Hour Blood Pressure Profile in Patients with Resistant Hypertension**
BC Jaeger
Journal of the American College of Cardiology, 73 (9 Supp. 1), 1818
Citations: 0
 - **Hypertension Awareness is Associated with Negative Psychosocial Outcomes in Africans Americans in the Jackson Heart Study (JHS)**
BC Jaeger
Circulation, 139 (Supp. 1), AP179
Citations: 0
 - **Wearable Technology to Reduce Sedentary Behavior and Cvd Risk in Older Adults: a Pilot Trial**
BC Jaeger
Medicine & Science in Sports & Exercise, 51 (6), 1004
Citations: 0
 - **Young Adult Risk Factor Burden and Sleep Hypertension in Middle-Age: the Coronary Artery Risk Development in Young Adults Study**
BC Jaeger
Circulation, 139 (Supp. 1), AP181
Citations: 0
 - **Change in Metabolic and Inflammatory Biomarkers after a 24-Week Multimodal Intervention**
BC Jaeger
9th International Conference on Frailty & Sarcopenia Research,
Miami, FL
Citations: 0
 - **Oblique Random Survival Forests**
BC Jaeger
ICSA Applied Statistics Symposium, Raleigh, NC
Citations: 0

- 2019 ● **Prolonged Hospital Length Of Stay After Pediatric Heart Transplantation And Its Impact On Outcomes: A PHTS Database Analysis**
BC Jaeger
Circulation, A13365
Citations: 0
- 2019 ● **Improving mortality predictions for mechanical-circulatory-support-patients using follow-up data and machine learning**
BC Jaeger
Circulation: Genomic and Precision Medicine, 13.4 (2020): e002877
Citations: 0
- 2018 ● **An R-squared Statistic for Covariance Model Selection in the Linear Mixed Model**
BC Jaeger
ENAR Spring Meeting, Atlanta, GA
Citations: 0
- 2018 ● **An R-squared Statistic for Covariance Model Selection in the Linear Mixed Model**
BC Jaeger
Joint Statistical Meeting, Vancouver
Citations: 0
- 2017 ● **Changes in Health-Related Quality of Life among Older Adults with Prostate Cancer: a Case-Control Study**
BC Jaeger
Journal of the American College of Surgeons, 225 (4), e105
Citations: 1

GUEST LECTURES

- 2019 ● **Reproducible reports with R**
BST 655, KIRSO statistical lecture
 - Applied example using data from the titanic cruise
 - Students were introduced to tibbleOne and rpriori packages
- 2019 ● **Using linear models for prediction**
BST 655, BST 623
 - Applied example using housing price data
 - Students introduced to bias-variance tradeoff and resampling

2019

- **Introduction to Machine Learning**

CCTS Friday Fellows talk, KIRSO statistical lecture, UAB SOPH programming group

- Covers core principals in machine learning
- Applied examples using data from the Interagency registry for mechanically assisted circulatory support



GRANTS SUBMITTED

2020

- **Cardiovascular Disease and Mortality Risk Reduction with Antihypertensive Medication for Adults with White Coat Hypertension and Masked Hypertension**

Primary Investigator: Muntner, Paul M

- Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
- Pending, R01HL158764

2020

- **Decoding Human Movements with Cortical and Subcortical Field Potentials with Directional DBS for Parkinson's Disease**

Primary Investigator: Walker, Harrison

- Submitted to National Institute of Mental Health/NIH/DHHS
- Pending, R01MH125925

2020

- **Implementation and Accuracy Of Blood Pressure Self-Measurement In The Waiting Room**

Primary Investigator: Muntner, Paul M

- Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
- Pending, R01HL151609

2020

- **Kidney Tubule Dysfunction and Future Risk of Acute Kidney Injury**

Primary Investigator: Gutierrez, Orlando M.

- Submitted to VETERANS MEDICAL RESEARCH FOUNDATION
- Pending

2020

- **Incorporation of a Hypertension Working Group into the Jackson Heart Study**

Primary Investigator: Muntner, Paul M

- Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
- Pending, R01HL117323

2020

- **Effectiveness of Video Conferencing on Self-measured Blood Pressure Accuracy**

Primary Investigator: Muntner, Paul M

- Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
- Pending, R01HL157500

- 2020 ● **NEAT X: Non-Exercise Activity Tracking & Exercise for Later Life Blood Pressure**
Primary Investigator: Buford, Thomas
• Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
• Pending, R61HL156827
- 2020 ● **Determining True Versus Apparent Treatment-Resistant Hypertension Among African Americans in the Jackson Heart Study**
Primary Investigator: Tanner, Rikki M.D.
• Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
• Not Funded, R01HL151687
- 2020 ● **Leveraging the 24-Hour Movement Paradigm to Preserve Cognitive Function and Prevent Alzheimer's Disease: The Multi-Ethnic Study of Atherosclerosis (MESA) 24H-ACT Study**
Primary Investigator: Gabriel, Kelley Pettee
• Submitted to Columbia University
• Resubmitted
- 2020 ● **BECOME Study - BP Effective Control Optimization in the Morning or Evening**
Primary Investigator: Howard, George
• Submitted to AUGUSTA UNIVERSITY - NEW
• Pending
- 2020 ● **Stroke Transomics among Africans for its Risk Reduction through Genomics of Spontaneous Intracerebral Hemorrhage: STARR-Genomics**
Primary Investigator: Tiwari, Hemant
• Submitted to UNIVERSITY OF IBADAN
• Pending
- 2020 ● **Identification and Characterization of Biomarkers and Therapeutic Targets through Multi-Omics: STARR-Multi-Omics**
Primary Investigator: Tiwari, Hemant
• Submitted to UNIVERSITY OF IBADAN
• Pending
- 2020 ● **Data Management and Analysis Core (DMAC)**
Primary Investigator: Tiwari, Hemant
• Submitted to UNIVERSITY OF IBADAN
• Pending
- 2020 ● **Social Determinants of Health and Blood Pressure Control in Black and White US Adults**
Primary Investigator: Muntner, Paul M
• Submitted to American Heart Association
• Pending

- 2020 ● **Use of Blood Pressure and Predicted Cardiovascular Disease Risk to Guide the Initiation of Antihypertensive Medication**
Primary Investigator: Colantonio, Lisandro D
• Submitted to NIH - National Institutes of Health/DHHS
• Pending
- 2020 ● **Improving the Detection of Masked Hypertension: Analysis of Pooled Population- and Community-Based Studies**
Primary Investigator: Muntner, Paul M
• Submitted to NIH - National Institutes of Health/DHHS
• Pending
- 2020 ● **Leveraging the 24-Hour Movement Paradigm to Preserve Cognitive Function and Prevent Alzheimer's disease: The Multi-Ethnic Study of Atherosclerosis (MESA) 24H-ACT Study**
Primary Investigator: Gabriel, Kelley Pettee
• Submitted to Columbia University
• Pending
- 2020 ● **Determining True Versus Apparent Treatment-resistant Hypertension Among African Americans in the Jackson Heart Study**
Primary Investigator: Tanner, Rikki M.D.
• Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
• Pending, R01HL159374
- 2020 ● **Body Composition Measurement Using Novel 2D Image Processing Versus Standard Techniques in a Diverse U.S. Adult Population**
Primary Investigator: Nickerson, Brett
• Submitted to TEXAS A&M INTERNATIONAL UNIVERSITY
• Pending
- 2020 ● **Novel Paracrine Mechanisms for Cell-Based Therapy of Injured Lung**
Primary Investigator: Nickerson, Brett
• Submitted to UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER (TYLER)
• Pending
- 2020 ● **Regenerative Niches in Bronchoalveolar Lavage Discovered by Exosomal Proteomics for Sepsis**
Primary Investigator: Jaeger, Byron C.
• Submitted to UNIVERSITY OF TEXAS
• Pending
- 2020 ● **Use of Blood Pressure and Predicted Cardiovascular Disease Risk to Guide the Initiation of Antihypertensive Medication**
Primary Investigator: Colantonio, Lisandro D
• Submitted to NIH - National Institutes of Health/DHHS
• Resubmitted

- 2020
- **Predicting Pediatric Transplant Outcomes using Machine Learning - A Collaboration between Physicians and Data Scientists**
Primary Investigator: Rudraraju, Ramaraju
 - Submitted to American Heart Association
 - Pending
- 2019
- **Establishing Medicare Based Estimation for Cardiovascular Disease (EMBED)**
Primary Investigator: Jaeger, Byron C.
 - Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
 - Pending, 1K01HL153624-01
- 2019
- **Decoding Human Movements with Cortical and Subcortical Field Potentials with Directional DBS for Parkinson^{<U+0092>}s Disease**
Primary Investigator: Walker, Harrison
 - Submitted to NIH - National Institutes of Health/DHHS
 - Withdrawn
- 2019
- **Non-Traditional Blood Pressure Parameters from Ambulatory Blood Pressure Monitoring and Left Ventricular Hypertrophy**
Primary Investigator: Muntner, Paul M
 - Submitted to American Heart Association
 - Not Funded
- 2019
- **Determining True Versus Apparent Treatment-Resistant Hypertension among African Americans in the Jackson Heart Study**
Primary Investigator: Tanner, Rikki M.D.
 - Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
 - Active, R56HL151687
- 2019
- **Implementation and Accuracy of Blood Pressure Self-measurement in the Waiting Room**
Primary Investigator: Muntner, Paul M
 - Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
 - Not Funded, R01HL151609
- 2019
- **Development of a Patient Decision Support Tool for Mechanical Circulatory Support**
Primary Investigator: Kirklin, James K
 - Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
 - Not Funded, R01HL151843
- 2019
- **Continuation of the Coordinating Center for the Chronic Renal Insufficiency Cohort (CRIC) Study**
Primary Investigator: Colantonio, Lisandro D
 - Submitted to University of Pennsylvania
 - Active, 576894

- 2019 ● **Home Versus Ambulatory Blood Pressure Monitoring and Falls in Older Adults**
Primary Investigator: Muntner, Paul M
• Submitted to Kaiser Foundation
• Not Funded
- 2019 ● **Crosstalk Between Common Disease-Related Pathways in Stroke and Dementia: Mechanisms Underlying Shared Susceptibility**
Primary Investigator: Long, Dorothy Leann
• Submitted to Northwestern University
• Not Funded
- 2019 ● **Resveratrol and Exercise to Enhance Mitochondrial Function in Older Adults**
Primary Investigator: Buford, Thomas
• Submitted to National Institute on Aging/NIH/DHHS
• Not Funded, F32AG066276
- 2019 ● **Automated Clinic Blood Pressure Assessment and Detection of White Coat and Masked Hypertension Study in African Americans**
Primary Investigator: Muntner, Paul M
• Submitted to Columbia University
• Active, 2(GG015903-01)
- 2019 ● **Angiotensin (1-7) Expressing Lactobacillus for Treating Alzheimer's Disease**
Primary Investigator: Buford, Thomas
• Submitted to National Institute on Aging/NIH/DHHS
• Pending, 1R01AG068912-01
- 2019 ● **Building and InnovatinG: Digital heALTH Technology and Analytics (BIGDATA) - Methodologic Core**
Primary Investigator: Redden, David T
• Submitted to National Institute of Arthritis & Musculoskeletal & Skin Diseases/NIH/DHHS
• Active, P30AR072583
- 2019 ● **Building and InnovatinG: Digital heALTH Technology and Analytics (BIGDATA)**
Primary Investigator: Curtis, Jeffrey R
• Submitted to National Institute of Arthritis & Musculoskeletal & Skin Diseases/NIH/DHHS
• Active, P30AR072583

- 2019
- **NRT-HDR Where Health Meets Data: Training Biostatisticians for the World of Big Health Data**
Primary Investigator: Cofield, Stacey S
 - Submitted to NSF - National Science Foundation
 - Not Funded
- 2018
- **Home Blood Pressure and Falls Among Older Adults**
Primary Investigator: Muntner, Paul M
 - Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
 - Active, R01HL147601
- 2018
- **Automated Clinic Blood Pressure Assessment and Detection of White Coal and Masked Hypertension Study**
Primary Investigator: Muntner, Paul M
 - Submitted to Columbia University
 - Resubmitted
- 2018
- **Improving the Detection of Masked Hypertension: Analysis of Pooled Population-and Community-Based Studies**
Primary Investigator: Muntner, Paul M
 - Submitted to Duke University
 - Completed, A030965
- 2016
- **Noninvasive Biomarkers to Advance Emerging DBS Electrode Technologies in Parkinson's Disease**
Primary Investigator: Walker, Harrison
 - Submitted to National Institute of Neurological Disorders and Stroke/NIH/DHHS
 - Active, UH3NS100553
- 2016
- **Incorporation of a Hypertension Working Group into the Jackson Heart Study**
Primary Investigator: Muntner, Paul M
 - Submitted to National Heart, Lung, and Blood Institute/NIH/DHHS
 - Active, R01HL117323



PEER REVIEW

Present
|
2019

- **Hypertension editorial board member**
Manuscript review and statistical consultant

Manuscripts reviewed: 6

Present
|
2018

- **Mayo Clinic statistical consultant**
Manuscript review and statistical consultant

Manuscripts reviewed: 52

Present 2017	<ul style="list-style-type: none"> ● Reviewer Peer-reviewed journal articles <ul style="list-style-type: none"> • <i>Journal of the American Society of Nephrology</i> • <i>Hypertension Research</i> • <i>Journal of human hypertension</i> • <i>Circulation: Cardiovascular Quality and Outcomes</i> • <i>Biometrics</i>
	<h2>💻 MENTORSHIP</h2>
Present 2019	<ul style="list-style-type: none"> ● John Bassler Graduate research assistant <ul style="list-style-type: none"> • John has lead an analysis of the RESTORES trial data with Tom Buford • A shiny application is being developed to disseminate this research
Present 2018	<ul style="list-style-type: none"> ● Andrew Sims Academic Advisor and dissertation committee member Assistance and advise with course registration and progression through graduate program
2020 2019	<ul style="list-style-type: none"> ● Anastasia Hartzes Dissertation committee member Doctorate in Biostatistics
2020 2018	<ul style="list-style-type: none"> ● Steve Ampah Dissertation committee member Doctorate in Biostatistics
2020 2019	<ul style="list-style-type: none"> ● Jeremiah Rastegar BST 698 <ul style="list-style-type: none"> • Jeremiah completed online and hands-on training in machine learning • Applied work included predictive modeling using the INTERMACS data registry
2020 2019	<ul style="list-style-type: none"> ● Natalie Simpkins Honors Thesis committee member Science and Technology Honors Program
2019 2018	<ul style="list-style-type: none"> ● Nora Ahmad Mohammad Balas Dissertation committee member <ul style="list-style-type: none"> • Masters in Public Health • Factors associated with breast cancer screening behaviors in a sample of Jamaican women

2018
|
2017

- **Catherine Jones**
Dissertation committee member
 - Masters in Epidemiology
 - The association between physical activity and executive functioning in obese adults

Present
|
2017

- **Kirklin Institute of Research in Surgical Outcomes**
Statistical lecturer
General lectures on the design and implementation of machine learning analyses

2019
|
2018

- **Diversity committee**
Member
 - We are committed to fostering a community and culture that embraces diversity, equity, and inclusion.
 - As faculty, staff, and students in the UAB School of Public Health, we will ensure that in our pursuit of excellence in education, research, and service, that we embody our mission and our values in all that we do.



SERVICE