WAKE FOREST SCHOOL OF MEDICINE
CURRICULUM VITAE

(June 22, 2022)

NAME Byron C. Jaeger, Ph.D.

CURRENT ACADEMIC TITLE Assistant Professor

ADDRESS Department of Biostatistics and Data Science
Division of Public Health Sciences
Wake Forest School of Medicine
Medical Center Boulevard
Winston-Salem, North Carolina 27157
(336) 716-6956
bjaeger@wakehealth.edu

EDUCATION

2008–2012	Furman University
Greenville, South Carolina
B.S. *magna cum laude* (Mathematics)
2012–2017	Gillings School of Global Public Health
Chapel Hill, North Carolina
Ph.D. (Statistics)

Research Advisor: Lloyd J. Edwards, Ph.D.
Thesis: *Extending R^2 to the generalized linear mixed model* |

EMPLOYMENT

Academic Appointments

Gillings School of Global Public Health, Chapel Hill, North Carolina
2012–2017	Research Assistant, Department of Biostatistics
2014–2017	Teaching Assistant, Department of Biostatistics
2016–2017	Statistical Consultant, School of Nursing

North Carolina Central University, Durham, North Carolina
2016–2017	Adjunct Professor, School of Business

University of Alabama at Birmingham, Birmingham, Alabama
2017–2021	Assistant Professor, Department of Biostatistics

Wake Forest School of Medicine, Wake Forest University, Winston-Salem, North Carolina
2021–Present	Assistant Professor, Department of Biostatistics and Data Science, Division of Public Health Sciences

ADMINISTRATIVE SERVICE

Institutional Service

2017–2019	Statistical Lecturer, Kirklin Institute of Research in Surgical Outcomes, University of Alabama at Birmingham (UAB) School of Medicine.
2017–2021	Academic Advisor for Andrew Sims, UAB Biostatistics
2017–2018	Member, Masters Committee for Catherine Jones, UAB Epidemiology. "The association between physical activity and executive functioning in obese adults"
2018	Member, Masters Committee for Nora Ahmad Mohammad Balas, UAB Epidemiolgy. "Factors associated with breast cancer screening behaviors in a sample of Jamaican women"
2018–2021	Member, Diversity Committee, UAB
2018–2020	Member, Doctoral Committee for Anastasia Hartzes, UAB Biostatistics. "Evaluating Lumpability in Markov Models: Applying Markov Processes to Model Disability in Relapsing Multiple Sclerosis Patients"
2018–2020	Member, Doctoral Committee for Steve Ampah, UAB Biostatistics. "Marginalized Models with Heterogeneous Random Effects for Zero-inflated Longitudinal Count Data"
2019–2020	Member, Undergraduate Honors Thesis Committee for Natalie Simpkins, UAB. Science and Technology Honors Program
2019–2021	Member, Doctoral Committee for Charles F. Murchison, UAB Biostatistics. "Application of Longitudinal Machine Learning Methods in Multi-Study Alzheimer's Disease Datasets"
2019–Present	Member, Doctoral Committee for Boyi Guo, UAB Biostatistics. "Bayesian Hierarchical Additive Models"
2019–Present	Member, Doctoral Committee for Swati Sakhuja, UAB Epidemiology "Racial Differences in Auxiliary Ambulatory Blood Pressure Parameters"
2021–Present	Member, Project TOOLBOX Document Management Review Working Group WFSM Department of Biostatistics and Data Science.

EXTRAMURAL APPOINTMENTS AND SERVICE

Editorial Boards

1. Member, *Hypertension*, 2019–Present

2. Statistical Section Editor, *Hypertension*, 2022–Present

Advisory Boards

1. Eastern North American Regional Advisory Board Member, 2019–present.

2. Data and Safety Monitoring Board Member, 2021–present, R01 AG068486: Preventing Cognitive Decline by Reducing Blood Pressure Target Trial.

3. Data and Safety Monitoring Board Member, 2021–present, R01 HL153750: Supporting Tailored Adaptive Change and Reinforcement for Medication Adherence Program (STARMAP): Randomized trial of a novel approach to improve adherence among older hypertensive women and men.

Journal Reviewer

1. Hypertension
2. Biometrical Journal

3. Biometrics
4. Journal of the American Society of Nephrology
5. Hypertension Research
6. Journal of Human Hypertension
7. Journal of Bone and Mineral Research
8. Circulation: Cardiovascular Quality and Outcomes
9. Mayo Clinic Proceedings

PROFESSIONAL MEMBERSHIPS AND SERVICE

Memberships

2011–Present	Member, Eastern North American Region, International Biometric Society
2016–Present	Member, American Statistical Association
2022–Present	Member, American Geriatric Society

HONORS AND AWARDS

2007	Regional finalist, Siemens Competition in Math, Science, and Technology
2008	Wylie Scholarship in Mathematics, Furman University
2012	Graduated *summa cum laude*, Furman University
2012	Phi Beta Kappa, Furman University
2012	DeLany Medal for Excellence in Mathematics, Furman University
2016	Big Data to Knowledge Scholarship
2017	Distinguished Student Paper Award, Eastern North American Region
2019	Finalist; American Heart Association Best Artificial Intelligence and Machine Learning Paper Award
2022	American Geriatric Society's Presidential Poster Award

PROFESSIONAL INTERESTS *(Last updated June 22, 2022)*

I am an Assistant Professor in the Department of Biostatistics and Data Science in the Division of Public Health Sciences at Wake Forest School of Medicine (WFSM). After receiving my PhD in Statistics at the University of Chapel Hill in North Carolina, I spent four years in the Department of Biostatistics at the University of Alabama at Birmingham School of Public Health and joined the WFSM faculty in 2021. At Birmingham, I was a Biostatistician of the Jackson Heart Study Hypertension Working Group and the American Heart Association Strategically Focused Research Network. I am currently serving as a member of the Regional Advisory Board for the Eastern North American Region of the International Biometric Society.

My current work at WFSM is focused on computational optimization of the oblique random survival forest, a machine learning algorithm I previously developed. I have studied the etiology of hypertension and cardiovascular disease from the perspective of observational cohort studies that tracked health behaviors, socioeconomic factors, and diet and exercise habits throughout mid-life. I am also involved in the Molecular Transducers of Physical Activity Consortium (MoTrPAC) and am currently developing an R package to help investigators in MoTrPAC apply standardized data processing pipelines to the developing MoTrPAC databases in a secure and reproducible manner. In addition, I am leading an investigation of long-term mortality for participants in the Systolic blood PRessure INtervention Trial (SPRINT) as a co-investigator in the SPRINT MIND research group. I am also leading an investigation of trends in blood pressure among Veterans who filled an initial prescription for antihypertensive medication as part of a pilot study funded by the Hypertension working Group at UAB. Last, I am supporting analyses of physical activity examining

the association between fitness levels in early adulthood and mortality as a member of the Multi-Ethnic Study of Atherosclerosis (MESA) field center at WFSM.

GRANTS

Current Grants

Approximately 87% of my salary is covered by the projects below.

1. U24 AR071113 (Miller/Pahor/Rejeski) 12/01/2016–11/30/2022

   NIH

   MoTrPAC

   The Consortium Coordinating Center (CCC) for the Molecular Transducers of Physical Activity Consortium (MoTrPAC) will provide support for the organization, administration, planning, standardization, documentation, monitoring, and reporting activities necessary for the success of the MoTrPAC. The CCC will play a pivotal role in ensuring the cohesion of the MoTrPAC by enhancing communication and integration across the study. The CCC will promote strategies to integrate the MoTrPAC activities with the input from the Data Safety Monitoring Board (DSMB), External Scientific Advisors, other experts, and the NIH.

   Role: Co-investigator

   Effort: 25%

2. R01 AG055606-02A1 (Reboussin) 06/15/2017–05/31/2024

   NIA

   SPRINT MIND 2020

   Alzheimer's disease has been estimated to effect ¿46 million individuals globally and 5.8 million persons in the United States. This number is expected to double by 2050. Thus far only one strategy to prevent age-related cognitive impairment has proven to be effective in a randomized controlled trial: the intensive SBP lowering intervention in SPRINT. By obtaining an additional visit with the SPRINT cohort, the proposed study would provide important evidence to inform clinical decision-making on the potential for treatment of hypertension to postpone cognitive decline.

   Role: Co-investigator

   Effort: 15%

3. UL1 TR001420-05 (McClain) 06/2017–05/2024

   NIH

   Wake Forest Clinical and Translational Science Award

   The purpose of this Clinical and Translational Science Award (CTSA) application is to synergize the fundamental positive changes that the Translational Science Institute has already brought to bear at Wake Forest Baptist Health. Strategic Goal 5: Promote research sustainability by increasing efficiency through effective organization, governance, collaboration, and communication.

   Role: Co-investigator

   Effort: 10%

4. R01HL117323 (Paul Muntner)   07/01/2021–06/30/2025

   NIH-NHLBI

   Incorporation of a Hypertension Working Group into the Jackson Heart Study

   The objective of this grant is to identify novel risk factors for hypertension and potential approaches to improve hypertension control rates and reduce BP related complications among African Americans. We will integrate a strong mentorship component to help early stage investigators, especially minority investigators, move towards independence.

   Role: Sub-Primary Investigator

   Effort: 13.5%

5. 75N92020D00007 (Bertoni)   12/19/2019–12/18/2026

   NHLBI

   Multi-Ethnic Study of Atherosclerosis (MESA) Field Center (FC)

   The scientific objectives are to (1) enhance statistical power to perform analyses of predictors of clinical outcomes, particularly in informative subgroups; (2) study the progression of subclinical to clinical CVD; and (3) identify new risk factors or interactions among factors that inform disease pathophysiology. The operational goals are to (1) continue cohort follow-up and information collection to document clinical events; (2) continue to foster scientific collaborations; and (3) conduct a limited clinical examination of the MESA participants as a platform for ancillary study examination components.

   Role: Co-investigator

   Effort: 13%

6. U24 HL155802-01A1 (Pajewski)   09/2021–08/2026

   NHLBI

   Data Coordinating Center for the Long-Term Effectiveness of the Anti-obesity medication Phentermine: The LEAP Trial

   The goal of this trial is to assess the long term effectiveness of Phentermine for weight loss and blood pressure reduction.

   Effort: 8%

7. R01 DK128803-01 (Ix)   08/2021–03/2025

   NIH

   Kidney Tubule Dysfunction and Future Risk of Acute Kidney Injury

   This project aims to evaluate the relationship of tubule dysfunction at times of health with future risk of acute kidney injury due to sepsis, after cardiac surgery, and in heart failure patients.

   Role: Sub-Primary Investigator

   Effort: 2.5%

8. Pilot Award (Jaeger)   04/2022–03/2023

   Wake Forest Center for Biomedical Informatics

   Accelerating the Oblique Random Survival Forest

The scientific objectives are to (1) optimize routines to fit oblique random survival forests, (2) implement routines in an open-source software package, and (3) disseminate the software along with a separate benchmark of routines in the software through public channels.

Role: Primary investigator

Effort: 0%

Past Grant History

Available upon request

BIBLIOGRAPHY

My MyNCBI collection is available publicly here. As of June 22, 2022, my h-index was 15 with 1368 total citations. I have a total of 58 articles in peer-reviewed journals, with 15 second author and 11 first author publications. More details can be accessed from my scholar profile.

Peer-Reviewed Journal Articles

1. **Jaeger BC**, Lewis TM. Enumerating graph depletions. Online Journal of Analytic Combinatorics. 2014;9.

2. Dampier C, **Jaeger BC**, Gross HE, Barry V, Edwards L, Lui Y, DeWalt DA, Reeve BB. Responsiveness of PROMIS Pediatric Measures to Hospitalizations for Sickle Pain and Subsequent Recovery. Pediatr Blood Cancer. 2016 Jun;63(6):1038-45. DOI: 10.1002/pbc.25931. Epub 2016 Feb 8. PMID: 26853841; PMCID: PMC5055833.

3. Reeve BB, Edwards LJ, **Jaeger BC**, Hinds PS, Dampier C, Gipson DS, Selewski DT, Troost JP, Thissen D, Barry V, Gross HE, DeWalt DA. Assessing responsiveness over time of the PROMIS® pediatric symptom and function measures in cancer, nephrotic syndrome, and sickle cell disease. Qual Life Res. 2018 Jan;27(1):249-257. DOI: 10.1007/s11136-017-1697-z. Epub 2017 Sep 7. PMID: 28884421; PMCID: PMC5771815.

4. **Jaeger BC**, Edwards LJ, Das K, Sen PK. An R^2 statistic for fixed effects in the generalized linear mixed model, Journal of Applied Statistics. Epub 2016 June; 44(6):1086-1105. DOI: 10.1080/02664763.2016.1193725.

5. Smith AB, **Jaeger BC**, Pinheiro LC, Edwards LJ, Tan HJ, Nielsen ME, Reeve BB. Impact of bladder cancer on health-related quality of life. BJU Int. 2018 Apr;121(4):549-557. DOI: 10.1111/bju.14047. Epub 2017 Nov 1. PMID: 28990272.

6. Webster-Clark M, **Jaeger BC**, Zhong Y, Filler G, Alvarez-Elias A, Franceschini N, Díaz-González de Ferris ME. Low agreement between modified-Schwartz and CKD-EPI eGFR in young adults: a retrospective longitudinal cohort study. BMC Nephrol. 2018 Aug 6;19(1):194. DOI: 10.1186/s12882-018-0995-1. PMID: 30081844; PMCID: PMC6080537.

7. Baptista LC, **Jaeger BC**, Anton SD, Bavry AA, Handberg EM, Gardner AK, Harper SA, Roberts LM, Sandesara B, Carter CS, Buford TW. Multimodal Intervention to Improve Functional Status in Hypertensive Older Adults: A Pilot Randomized Controlled Trial. J Clin Med. 2019 Feb 6;8(2):196. DOI: 10.3390/jcm8020196. PMID: 30736317; PMCID: PMC6406861.

8. Bittner V, Colantonio LD, Dai Y, Woodward M, Mefford MT, Rosenson RS, Muntner P, Monda KL, Kilgore ML, **Jaeger BC**, Levitan EB. Association of Region and Hospital and Patient Characteristics With Use of High-Intensity Statins After Myocardial Infarction Among Medicare Beneficiaries. JAMA

Cardiol. 2019 Sep 1;4(9):865-872. DOI: 10.1001/jamacardio.2019.2481. PMID: 31339519; PMCID: PMC6659160.

9. Booth JN, Anstey DE, Bello NA, **Jaeger BC**, Pugliese DN, Thomas SJ, Deng L, Shikany JM, Lloyd-Jones D, Schwartz JE, Lewis CE, Shimbo D, Muntner P. Race and sex differences in asleep blood pressure: The Coronary Artery Risk Development in Young Adults (CARDIA) study. J Clin Hypertens (Greenwich). 2019 Feb;21(2):184-192. DOI: 10.1111/jch.13474. Epub 2019 Feb 5. PMID: 30719843; PMCID: PMC6375074.

10. Bowling CB, Deng L, Sakhuja S, Morey MC, **Jaeger BC**, Muntner P. Prevalence of Activity Limitations and Association with Multimorbidity Among US Adults 50 to 64 Years Old. J Gen Intern Med. 2019 Nov;34(11):2390-2396. DOI10.1007/s11606-019-05244-8. Epub 2019 Aug 21. PMID: 31435766; PMCID: PMC6848639.

11. Harper SA, Roberts LM, Layne AS, **Jaeger BC**, Gardner AK, Sibille KT, Wu SS, Vincent KR, Fillingim RB, Manini TM, Buford TW. Blood-Flow Restriction Resistance Exercise for Older Adults with Knee Osteoarthritis: A Pilot Randomized Clinical Trial. J Clin Med. 2019 Feb 21;8(2):265. DOI: 10.3390/jcm8020265. PMID: 30795545; PMCID: PMC6406824.

12. Hubbard D, Colantonio LD, Tanner RM, Carson AP, Sakhuja S, **Jaeger BC**, Carey RM, Cohen LP, Shimbo D, Butler M, Bertoni AG, Langford AT, Booth JN 3rd, Kalinowski J, Muntner P. Prediabetes and Risk for Cardiovascular Disease by Hypertension Status in Black Adults: The Jackson Heart Study. Diabetes Care. 2019 Dec;42(12):2322-2329. DOI: 10.2337/dc19-1074. Epub 2019 Oct 7. PMID: 31591089; PMCID: PMC7011196.

13. **Jaeger BC**, Anstey DE, Bress AP, Booth JN 3rd, Butler M, Clark D 3rd, Howard G, Kalinowski J, Long DL, Ogedegbe G, Plante TB, Shimbo D, Sims M, Supiano MA, Whelton PK, Muntner P. Cardiovascular Disease and Mortality in Adults Aged $\geq$ 60 Years According to Recommendations by the American College of Cardiology/American Heart Association and American College of Physicians/American Academy of Family Physicians. Hypertension. 2019 Feb;73(2):327-334. DOI: 10.1161/HYPERTENSIONAHA.118.12291. PMID: 30595115; PMCID: PMC6392064.

14. **Jaeger BC**, Edwards LJ, Gurka MJ. An R^2 statistic for covariance model selection in the linear mixed model. Journal of Applied Statistics. 2019;46(1):164–84. DOI: 10.1080/02664763.2018.1466869.

15. **Jaeger BC**, Long DL, Long DM, Sims M, Szychowski JM, Min Y-I, et al. Oblique random survival forests. The Annals of Applied Statistics. 2019;13(3):1847–83. DOI: 10.1214/19-AOAS1261.

16. Pugliese DN, Booth JN 3rd, Deng L, Anstey DE, Bello NA, **Jaeger BC**, Shikany JM, Lloyd-Jones D, Lewis CE, Schwartz JE, Muntner P, Shimbo D. Sex differences in masked hypertension: the Coronary Artery Risk Development in Young Adults study. J Hypertens. 2019 Dec;37(12):2380-2388. DOI: 10.1097/HJH.0000000000002175. PMID: 31246891; PMCID: PMC7006727.

17. Roberts LM, **Jaeger BC**, Baptista LC, Harper SA, Gardner AK, Jackson EA, Pekmezi D, Sandesara B, Manini TM, Anton SD, Buford TW. Wearable Technology To Reduce Sedentary Behavior And CVD Risk In Older Adults: A Pilot Randomized Clinical Trial. Clin Interv Aging. 2019 Oct 23;14:1817-1828. DOI: 10.2147/CIA.S222655. PMID: 31695350; PMCID: PMC6815758.

18. Siddiqui M, Judd EK, **Jaeger BC**, Bhatt H, Dudenbostel T, Zhang B, Edwards LJ, Oparil S, Calhoun DA. Out-of-Clinic Sympathetic Activity Is Increased in Patients With Masked Uncontrolled Hypertension. Hypertension. 2019 Jan;73(1):132-141. DOI: 10.1161/HYPERTENSIONAHA.118.11818. PMID: 30571547; PMCID: PMC6309788.

19. Yano Y, Tanner RM, Sakhuja S, **Jaeger BC**, Booth JN 3rd, Abdalla M, Pugliese D, Seals SR, Ogedegbe G, Jones DW, Muntner P, Shimbo D. Association of Daytime and Nighttime Blood Pressure With Cardiovascular Disease Events Among African American Individuals. JAMA Cardiol. 2019 Sep 1;4(9):910-917. DOI: 10.1001/jamacardio.2019.2845. Erratum in: JAMA Cardiol. 2019 Sep 1;4(9):953. PMID: 31411629; PMCID: PMC6694386.

20. Akinyelure OP, Sakhuja S, Colvin CL, Clark D 3rd, **Jaeger BC**, Hardy ST, Howard G, Cohen LP, Irvin MR, Tanner R, Carey RM, Muntner P. Cardiovascular Health and Transition From Controlled Blood Pressure to Apparent Treatment Resistant Hypertension: The Jackson Heart Study and the REGARDS Study. Hypertension. 2020 Dec;76(6):1953-1961. DOI: 10.1161/HYPERTENSION-AHA.120.15890. Epub 2020 Nov 2. PMID: 33131312.

21. Balas N, Yun H, **Jaeger BC**, Aung M, Jolly PE. Factors associated with breast cancer screening behaviors in a sample of Jamaican women in 2013. Women Health. 2020 Oct;60(9):1032-1039. DOI: 10.1080/03630242.2020.1789260. Epub 2020 Jul 12. PMID: 32654623; PMCID: PMC7494050.

22. Bello NA, **Jaeger BC**, Booth JN 3rd, Abdalla M, Anstey DE, Pugliese DN, Lewis CE, Gidding SS, Lloyd-Jones D, Shah SJ, Schwartz JE, Shikany JM, Muntner P, Shimbo D. Associations of awake and asleep blood pressure and blood pressure dipping with abnormalities of cardiac structure: the Coronary Artery Risk Development in Young Adults study. J Hypertens. 2020 Jan;38(1):102-110. DOI: 10.1097/HJH.0000000000002221. PMID: 31464800; PMCID: PMC6941789.

23. Bodduluri S, Nakhmani A, Reinhardt JM, Wilson CG, McDonald ML, Rudraraju R, **Jaeger BC**, Bhakta NR, Castaldi PJ, Sciurba FC, Zhang C, Bangalore PV, Bhatt SP. Deep neural network analyses of spirometry for structural phenotyping of chronic obstructive pulmonary disease. JCI Insight. 2020 Jul 9;5(13):e132781. DOI: 10.1172/jci.insight.132781. PMID: 32554922; PMCID: PMC7406302.

24. Booth JN 3rd, **Jaeger BC**, Huang L, Abdalla M, Sims M, Butler M, Muntner P, Shimbo D. Morning Blood Pressure Surge and Cardiovascular Disease Events and All-Cause Mortality in Blacks: The Jackson Heart Study. Hypertension. 2020 Mar;75(3):835-843. DOI: 10.1161/HYPERTENSION-AHA.119.14233. Epub 2020 Feb 3. PMID: 32008430; PMCID: PMC7035156.

25. **Jaeger BC**, Booth JN 3rd, Butler M, Edwards LJ, Lewis CE, Lloyd-Jones DM, Sakhuja S, Schwartz JE, Shikany JM, Shimbo D, Yano Y, Muntner P. Development of Predictive Equations for Nocturnal Hypertension and Nondipping Systolic Blood Pressure. J Am Heart Assoc. 2020 Jan 21;9(2):e013696. DOI: 10.1161/JAHA.119.013696. Epub 2020 Jan 9. PMID: 31914878; PMCID: PMC7033845.

26. Langford AT, Akinyelure OP, Moore TL Jr, Howard G, Min YI, Hillegass WB, Bress AP, Tajeu GS, Butler M, **Jaeger BC**, Yano Y, Shimbo D, Ogedegbe G, Calhoun D, Booth JN 3rd, Muntner P. Underutilization of Treatment for Black Adults With Apparent Treatment-Resistant Hypertension: JHS and the REGARDS Study. Hypertension. 2020 Nov;76(5):1600-1607. DOI: 10.1161/HYPER-TENSIONAHA.120.14836. Epub 2020 Sep 14. PMID: 32924633; PMCID: PMC7685176.

27. **Jaeger BC**. Tutorial: The Use of Statistical Learning in Pediatric Research. The Journal of Pediatrics. 2020;223:231–3.

28. Muntner P, Hardy ST, Fine LJ, **Jaeger BC**, Wozniak G, Levitan EB, Colantonio LD. Trends in Blood Pressure Control Among US Adults With Hypertension, 1999-2000 to 2017-2018. JAMA. 2020 Sep 22;324(12):1190-1200. DOI: 10.1001/jama.2020.14545. PMID: 32902588; PMCID: PMC7489367.

29. Sakhuja S, Booth JN, Anstey DE, **Jaeger BC**, Lewis CE, Lloyd-Jones DM, Schwartz JE, Shimbo D, Shikany JM, Sims M, Muntner P. Using Predicted Atherosclerotic Cardiovascular Disease Risk for Discrimination of Awake or Nocturnal Hypertension. Am J Hypertens. 2020 Nov 3;33(11):1011-1020. DOI: 10.1093/ajh/hpaa099. PMID: 32657334; PMCID: PMC7608525.

30. Akinyelure OP, **Jaeger BC**, Moore TL, Hubbard D, Oparil S, Howard VJ, Howard G, Buie JN, Magwood GS, Adams RJ, Bonilha L, Lackland DT, Muntner P. Racial Differences in Blood Pressure Control Following Stroke: The REGARDS Study. Stroke. 2021 Dec;52(12):3944-3952. DOI: 10.1161/STROKEAHA.120.033108. Epub 2021 Sep 2. PMID: 34470498.

31. Awad MZ, Vaden RJ, Irwin ZT, Gonzalez CL, Black S, Nakhmani A, **Jaeger BC**, Bentley JN, Guthrie BL, Walker HC. Subcortical short-term plasticity elicited by deep brain stimulation. Ann Clin Transl Neurol. 2021 May;8(5):1010-1023. DOI: 10.1002/acn3.51275. Epub 2021 Apr 7. PMID: 33826240; PMCID: PMC8108424.

32. Bundy JD, **Jaeger BC**, Huffman MD, Knox SS, Thomas SJ, Shimbo D, Booth JN, Lewis CE, Edwards LJ, Schwartz JE, Muntner P. Twenty-Five-Year Changes in Office and Ambulatory Blood Pressure: Results From the Coronary Artery Risk Development in Young Adults (CARDIA) Study. Am J Hypertens. 2021 May 22;34(5):494-503. DOI: 10.1093/ajh/hpaa189. PMID: 33201230; PMCID: PMC8140654.

33. Cohen LP, Hubbard D, Colvin CL, **Jaeger BC**, Poudel B, Abdalla M, Langford A, Hardy ST, Sims M, Lewis CE, Muntner P, Shimbo D. Lifestyle behaviors among adults recommended for ambulatory blood pressure monitoring according to the 2017 ACC/AHA blood pressure guideline. Am J Hypertens. 2021 Jul 16:hpab110. DOI: 10.1093/ajh/hpab110. Epub ahead of print. PMID: 34270687.

34. Goyal P, Yum B, Navid P, Chen L, Kim DH, Roh J, **Jaeger BC**, Levitan EB. Frailty and Post-hospitalization Outcomes in Patients With Heart Failure With Preserved Ejection Fraction. Am J Cardiol. 2021 Jun 1;148:84-93. DOI: 10.1016/j.amjcard.2021.02.019. Epub 2021 Mar 3. PMID: 33667443.

35. Hardy ST, Chen L, Cherrington AL, Moise N, **Jaeger BC**, Foti K, Sakhuja S, Wozniak G, Abdalla M, Muntner P. Racial and Ethnic Differences in Blood Pressure Among US Adults, 1999-2018. Hypertension. 2021 Dec;78(6):1730-1741. DOI: 10.1161/HYPERTENSIONAHA.121.18086. Epub 2021 Nov 1. PMID: 34719937.

36. Hardy ST, Sakhuja S, **Jaeger BC**, Oparil S, Akinyelure OP, Spruill TM, Kalinowski J, Butler M, Anstey DE, Elfassy T, Tajeu GS, Allen NB, Reges O, Sims M, Shimbo D, Muntner P. Maintaining Normal Blood Pressure Across the Life Course: The JHS. Hypertension. 2021 May 5;77(5):1490-1499. DOI: 10.1161/HYPERTENSIONAHA.120.16278. Epub 2021 Mar 22. PMID: 33745299; PMCID: PMC8564773.

37. Hardy ST, Sakhuja S, **Jaeger BC**, Urbina EM, Suglia SF, Feig DI, Muntner P. Trends in Blood Pressure and Hypertension Among US Children and Adolescents, 1999-2018. JAMA Netw Open. 2021 Apr 1;4(4):e213917. DOI: 10.1001/jamanetworkopen.2021.3917. PMID: 33792732; PMCID: PMC8017470.

38. Harper SA, Bassler JR, Peramsetty S, Yang Y, Roberts LM, Drummer D, Mankowski RT, Leeuwenburgh C, Ricart K, Patel RP, Bamman MM, Anton SD, **Jaeger BC**, Buford TW. Resveratrol and exercise combined to treat functional limitations in late life: A pilot randomized controlled trial. Exp Gerontol. 2021 Jan;143:111111. DOI: 10.1016/j.exger.2020.111111. Epub 2020 Oct 15. PMID: 33068691; PMCID: PMC7855904.

39. **Jaeger BC**, Akinyelure OP, Sakhuja S, Bundy JD, Lewis CE, Yano Y, Howard G, Shimbo D, Muntner P, Schwartz JE. Number and timing of ambulatory blood pressure monitoring measurements. Hypertens Res. 2021 Dec;44(12):1578-1588. DOI: 10.1038/s41440-021-00717-y. Epub 2021 Aug 11. PMID: 34381194.

40. **Jaeger BC**, Cantor R, Sthanam V, Xie R, Kirklin JK, Rudraraju R. Improving Outcome Predictions for Patients Receiving Mechanical Circulatory Support by Optimizing Imputation of Missing Values. Circ Cardiovasc Qual Outcomes. 2021 Sep;14(9):e007071. DOI: 10.1161/CIRCOUTCOMES.120.007071. Epub 2021 Sep 14. PMID: 34517728; PMCID: PMC8455450.

41. Li S, Schwartz JE, Shimbo D, Muntner P, Shikany JM, Booth JN 3rd, Allen NB, **Jaeger BC**, Bress AP, King JB, Clark D 3rd, Butler KR, Correa A, Moran AE, Bellows BK, Zhang Y. Estimated Prevalence of Masked Asleep Hypertension in US Adults. JAMA Cardiol. 2021 May 1;6(5):568-573. DOI: 10.1001/jamacardio.2020.5212. PMID: 33112362; PMCID: PMC7593881.

42. Muntner P, **Jaeger BC**, Hardy ST, Foti K, Reynolds K, Whelton PK, Bowling CB. Age-specific prevalence and factors associated with normal blood pressure among US adults. Am J Hypertens. 2021 Oct 2:hpab154. DOI: 10.1093/ajh/hpab154. Epub ahead of print. PMID: 34599824.

43. Sakhuja S, Colvin CL, Akinyelure OP, **Jaeger BC**, Foti K, Oparil S, Hardy ST, Muntner P. Reasons for Uncontrolled Blood Pressure Among US Adults: Data From the US National Health and Nutrition Examination Survey. Hypertension. 2021 Nov;78(5):1567-1576. DOI: 10.1161/HYPERTENSIONAHA.121.17590. Epub 2021 Oct 13. PMID: 34644171.

44. Segar MW, **Jaeger BC**, Patel KV, Nambi V, Ndumele CE, Correa A, Butler J, Chandra A, Ayers C, Rao S, Lewis AA, Raffield LM, Rodriguez CJ, Michos ED, Ballantyne CM, Hall ME, Mentz RJ, de Lemos JA, Pandey A. Development and Validation of Machine Learning-Based Race-Specific Models to Predict 10-Year Risk of Heart Failure: A Multicohort Analysis. Circulation. 2021 Jun 15;143(24):2370-2383. DOI: 10.1161/CIRCULATIONAHA.120.053134. Epub 2021 Apr 13. PMID: 33845593.

45. Segar MW, Patel KV, Vaduganathan M, Caughey MC, **Jaeger BC**, Basit M, Willett D, Butler J, Sengupta PP, Wang TJ, McGuire DK, Pandey A. Development and validation of optimal phenomapping methods to estimate long-term atherosclerotic cardiovascular disease risk in patients with type 2 diabetes. Diabetologia. 2021 Jul;64(7):1583-1594. DOI: 10.1007/s00125-021-05426-2. Epub 2021 Mar 13. PMID: 33715025.

46. Zhang Y, Schwartz JE, **Jaeger BC**, An J, Bellows BK, Clark D 3rd, Langford AT, Kalinowski J, Ogedegbe O, Carr JJ, Terry JG, Min YI, Reynolds K, Shimbo D, Moran AE, Muntner P. Association Between Ambulatory Blood Pressure and Coronary Artery Calcification: The JHS. Hypertension. 2021 Jun;77(6):1886-1894. DOI: 10.1161/HYPERTENSIONAHA.121.17064. Epub 2021 Apr 26. PMID: 33896192; PMCID: PMC8119358.

47. **Jaeger BC**, Sakhuja S, Hardy ST, Akinyelure OP, Bundy JD, Muntner P, Whelton PK. Predicted cardiovascular risk for United States adults with diabetes, chronic kidney disease, and at least 65 years of age. J Hypertens. 2022 Jan 1;40(1):94-101. DOI: 10.1097/HJH.0000000000002982. PMID: 34420013.

48. Kim J, Arora P, Kwon SY, Parcha V, Levitan EB, **Jaeger BC**, Soliman EZ, Howard VJ. Relation of Abdominal Obesity to Risk of Atrial Fibrillation (From the Reasons for Geographic and Racial Differences in Stroke [REGARDS] Study). Am J Cardiol. 2022 Jan 1;162:116-121. DOI: 10.1016/j.amjcard.2021.08.065. PMID: 34903337.

49. Long DL, Guo B, McClure LA, **Jaeger BC**, Tison SE, Howard G, Judd SE, Howard VJ, Plante TB, Zakai NA, Koh I, Cheung KL, Cushman M. Biomarkers as MEDiators of racial disparities in risk factors (BioMedioR): Rationale, study design, and statistical considerations. Ann Epidemiol. 2021 Nov 3;66:13-19. DOI: 10.1016/j.annepidem.2021.10.010. Epub ahead of print. PMID: 34742867.

50. Levitt EB, Patch DA, Mabry S, Terrero A, **Jaeger BC**, Haendel MA, Chute CG, Quade JH, Ponce B, Theiss S, Spitler CA, Johnson JP. Association Between COVID-19 and Mortality in Hip Fracture Surgery in the National COVID Cohort Collaborative (N3C): A Retrospective Cohort Study. J Am Acad Orthop Surg Glob Res Rev. 2022 Jan 4;6(1):e21.00282. DOI: 10.5435/JAAOSGlobal-D-21-00282. PMID: 34982060; PMCID: PMC8735795.

51. **Jaeger BC**, Sakhuja S, Hardy ST, Akinyelure OP, Bundy JD, Muntner P, Whelton PK. Predicted cardiovascular risk for United States adults with diabetes, chronic kidney disease, and at least 65 years of age. J Hypertens. 2022 Jan 1;40(1):94-101. DOI: 10.1097/HJH.0000000000002982. PMID: 34420013.

52. Long DL, Guo B, McClure LA, **Jaeger BC**, Tison SE, Howard G, Judd SE, Howard VJ, Plante TB, Zakai NA, Koh I, Cheung KL, Cushman M. Biomarkers as MEDiators of racial disparities in risk factors (BioMedioR): Rationale, study design, and statistical considerations. Ann Epidemiol. 2022 Feb;66:13-19. DOI10.1016/j.annepidem.2021.10.010. Epub 2021 Nov 3. PMID: 34742867; PMCID: PMC8920757.

53. Gabriel KP, **Jaeger BC**, Sternfeld B, Dooley EE, Carnethon MR, Jacobs Jr DR, Lewis CE, Hornikel B, Reis JP, Schreiner PJ, Shikany JM. Factors Associated with Age-related Declines in Cardiorespiratory Fitness from Early Adulthood through Midlife: CARDIA. Medicine & Science in Sports & Exercise. 2022 Feb 28.

54. Sakhuja S, **Jaeger BC**, Akinyelure OP, Bress AP, Shimbo D, Schwartz JE, Hardy ST, Howard G, Drawz P, Muntner P. Potential impact of systematic and random errors in blood pressure measurement on the prevalence of high office blood pressure in the United States. J Clin Hypertens (Greenwich). 2022 Mar;24(3):263-270. DOI: 10.1111/jch.14418. Epub 2022 Feb 9. PMID: 35137521; PMCID: PMC8925005.

55. Bundy JD, Rahman M, Matsushita K, **Jaeger BC**, Cohen JB, Chen J, Deo R, Dobre MA, Feldman HI, Flack J, Kallem RR, Lash JP, Seliger S, Shafi T, Weiner SJ, Wolf M, Yang W, Allen NB, Bansal N, He J; CRIC Study Investigators. Risk Prediction Models for Atherosclerotic Cardiovascular Disease in Patients with Chronic Kidney Disease: The CRIC Study. J Am Soc Nephrol. 2022 Mar;33(3):601-611. DOI: 10.1681/ASN.2021060747. Epub 2022 Feb 10. PMID: 35145041; PMCID: PMC8975076.

56. Yano Y, Poudel B, Chen L, Sakhuja S, **Jaeger BC**, Viera AJ, Shimbo D, Clark DT, Anstey DE, Lin FC, Lewis CE, Shikany JM, Rana JS, Correa A, Lloyd-Jones DM, Schwartz JE, Muntner P. Impact of asleep and 24-hour blood pressure data on the prevalence of masked hypertension by race/ethnicity. Am J Hypertens. 2022 Mar 18:hpac027. DOI: 10.1093/ajh/hpac027. Epub ahead of print. PMID: 35303061.

57. Murchison CF, **Jaeger BC**, Szychowski JM, Cutter GR, Roberson ED, Kennedy RE. Influence of Subject-Specific Effects in Longitudinal Modelling of Cognitive Decline in Alzheimer's Disease. J Alzheimers Dis. 2022 Mar 21. doi: 10.3233/JAD-215553. Epub ahead of print. PMID: 35342087.

58. Muntner P, **Jaeger BC**, Hardy TS, Foti K, Reynolds K, Whelton PK, Bowling CB. Age-Specific Prevalence and Factors Associated With Normal Blood Pressure Among US Adults, American Journal of Hypertension, Volume 35, Issue 4, April 2022, Pages 319–327, DOI: 10.1093/ajh/hpab154

Presentations at Professional Meetings

1. Narang GL, Smith AB, **Jaeger BC**, Pinheiro L, Edwards LJ, Pruthi R, et al. Changes in Health-Related Quality of Life Among Older Adults with Prostate Cancer: A Case-Control Study. Journal of the American College of Surgeons. 2017;225(4):e105.

2. Smith A, Jaeger B, Pinheiro L, Edwards L, Reeve B. MP14-13 CHANGES IN HEALTH-RELATED QUALITY OF LIFE AMONG OLDER ADULTS WITH PROSTATE CANCER: A CASE-CONTROL STUDY. The Journal of Urology. 2017;197(4S):e166–7

3. **Jaeger BC**, LJ Edwards, MJ Gurka. An R-squared Statistic for Covariance Model Selection in the Linear Mixed Model. ENAR Spring Meeting, Atlanta, GA 2018.

4. **Jaeger BC**, LJ Edwards, MJ Gurka. An R-squared Statistic for Covariance Model Selection in the Linear Mixed Model. Joint Statistical Meeting, Vancouver 2018

5. LC Baptista, **Jaeger BC**, SD Anton, AA Bavry, EM Handberg, et al. Change in Metabolic and Inflammatory Biomarkers after a 24-Week Multimodal Intervention. 9th International Conference on Frailty and Sarcopenia Research, Miami, FL 2019

6. **Jaeger BC**, DL Long, DM Long, M Sims, J Szychowski, Y Min, et al. Oblique Random Survival Forests. ICSA Applied Statistics Symposium, Raleigh, NC 2019.

7. D Gupta, **Jaeger BC**, R Cantor, D Koehl, N Bansal, Prolonged Hospital Length Of Stay After Pediatric Heart Transplantation And Its Impact On Outcomes: A PHTS Database Analysis. AHA Scientific Sessions, Philadelphia, PA 2019.

8. Butler M, Kalinowski J, Shimbo D, Sims M, Booth JN, Bress AP, Tanner RM, **Jaeger BC**Fredericks S, Ogedegbe G, Spruill TM. Abstract P179: Hypertension Awareness is Associated With Negative Psychosocial Outcomes in Africans Americans in the Jackson Heart Study (JHS). Circulation. 2019;139(Suppl_1):AP179–AP179

9. Roberts LM, **Jaeger BC**, Baptista LC, Harper SA, Jackson E, Gardner AK, et al. Wearable Technology To Reduce Sedentary Behavior And CVD Risk In Older Adults: A Pilot Trial: 3620 Board no. 308 June 1 9: 30 AM-11: 00 AM. Medicine and Science in Sports and Exercise. 2019;51(6S):1004.

10. Siddiqui M, **Jaeger BC**, Judd E, Dudenbostel T, Pollock DM, Pollock J, et al. Novel 24-hour blood pressure profile in patients with resistant hypertension. Journal of the American College of Cardiology. 2019;73(9S1):1818–1818.

11. Siddiqui M, **Jaeger BC**, Gaddam K, Dudenbostel T, Judd E, Pollock D, et al. Spironolactone does not change 24 hour blood pressure circadian pattern in resistant hypertensive patients. Journal of Hypertension. 2019;37:e313.

12. **Jaeger BC**, Cantor RS, Sthanam V, Rudraraju R. Improving Mortality Predictions for Patients With Mechanical Circulatory Support Using Follow-Up Data and Machine Learning. Circulation: Genomic and Precision Medicine. 2020;13(4):e002877.

13. Sakhuja S, Hardy ST, Akinyelure P, **Jaeger BC**, Shimbo D, Bress AP, et al. Abstract P335: Using Cardiovascular Disease Risk Versus Blood Pressure To Guide The Initiation Of Antihypertensive Medication Among Us Adults. Circulation. 2020;141(Suppl_1):AP335–AP335.

14. Segar MW, **Jaeger BC**, Patel KV, Nambi V, Ndumele CE, Correa A, et al. Development and Validation of Machine Learning-based Race-specific Models to Predict 10-year Risk of Heart Failure: A Multi-cohort Analysis. Circulation. 2020;142(Suppl_3):A196–A196.

15. Thomas SJ, Booth III JN, **Jaeger BC**, Hubbard D, Sakhuja S, Abdalla M, et al. Association of sleep characteristics with nocturnal hypertension and nondipping blood pressure in the CARDIA study. Journal of the American Heart Association. 2020;9(7):e015062.

16. Wisotzkey BL, Asante-Korang A, Kirklin JK, Cantor R, Koehl D, **Jaeger BC**, et al. Risk Factors for One-year Mortality and Allograft Loss in Pediatric Heart Transplant Patients Using Machine Learning: Analysis of the Pediatric Heart Transplant Society Database. Circulation. 2020;142(Suppl_3):A14239–A14239.

17. Yano Y, Poudel B, Chen L, Sakhuja S, **Jaeger BC**, Viera A, et al. Abstract P173: The Impact of Asleep Blood Pressure on the Prevalence of Masked Hypertension by Race/ethnicity: Analysis of Pooled Population-and Community-based Studies. Circulation. 2020;141(Suppl_1):AP173–AP173.

18. Butts RJ, Kirklin J, Cantor R, Zhao H, **Jaeger BC**, Nandi D, et al. Congenital Heart Disease Classification Improves SRTR Risk Estimation of Waitlist and Early Post-Transplant Mortality for Pediatric Heart Transplantation. Circulation. 2021;144(Suppl_1):A11567–A11567

19. Tajeu GS, Colvin C, Hardy ST, Gaye B, Bress AP, **Jaeger BC**, et al. Prevalence, Risk Factors And Cardiovascular Outcomes Associated With Persistent Blood Pressure Control: The Jackson Heart Study. Circulation. 2021;143(Suppl_1):A064–A064.

20. Turkson-Ocran R-AN, Miller ER, Zhao D, Pilla S, Duan D, **Jaeger BC**, et al. Abstract MP14: The Effect Of Time-restricted Feeding On 24-hour Ambulatory Blood Pressure: Results From The Time-restricted Intake Of Meals (TRIM) Study. Circulation. 2021;143(Suppl_1):AMP14–AMP14.

21. S Sakhuja, **Jaeger BC**, Y Yano, D Shimbo, CE Lewis, et al. Abstract P117: Association Of Ambulatory Blood Pressure Monitoring Parameters With Left Ventricular Hypertrophy: Analysis Of Pooled Population- And Community-based Studies. Circulation 145 (Suppl_1), AP117-AP117.

22. Akinyelure OP, **Jaeger BC**, Oparil S, Carson AP, Safford M, Howard G, Muntner P, Hardy ST. Social Determinants Of Health And Uncontrolled Blood Pressure In A National Cohort Of Black And White US Adults. Circulation. 2022 Mar 1;145(Suppl_1):A052-.

Invited Extramural Presentations

1. September 28, 2021 **Jaeger BC**. Happier Version Control using Git and GitHub with Rstudio. American Statistical Assocation Statistical Learning and Data Science Webinar. Slides here

2. April 20, 2022 **Jaeger BC**. Introduction to R. Biostatistics, Epidemiology, and Research Design (BERD): Lunch & Learn. Slides here

3. June 21, 2022 **Jaeger BC**. Oblique random survival forests version 2.0: faster and more interpretable. Invited speaker at the International Chinese Statistical Association. Slides here

R Packages

1. r2glmm: Computes the model R^2 and semi-partial R^2 with confidence limits for the linear and generalized linear mixed model. Total downloads from CRAN: 41,010

2. table.glue: Translate double and integer valued data into character values formatted for tabulation in manuscripts or other types of academic reports. Total downloads from CRAN: 6,876

3. obliqueRSF: Oblique random survival forests incorporate linear combinations of input variables into random survival forests. Regularized Cox proportional hazard models are used to identify optimal linear combinations of input variables. Total downloads from CRAN: 19,258

4. aorsf: Fit, interpret, and make predictions with oblique random survival forests. Oblique decision trees are notoriously slow compared to their axis based counterparts, but 'aorsf' runs as fast or faster than axis-based decision tree algorithms for right-censored time-to-event outcomes. aorsf is not on CRAN yet and is currently under review at ROpenSci