# **REUBEN ADATORWOVOR**

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#### EDUCATION

University of North Carolina at Chapel Hill	
Ph.D. in Biostatistics	May 2020
Masters in Biostatistics	December 2015
Southern Illinois University, IL	
Ph.D.(ABD) in Mathematics	May 2013
Youngstown State University, OH	
Masters in Mathematics (Actuarial Science)	August 2008
University of Cape Coast, GH	
Bachelor of Education and Mathematics	$June \ 2005$
RESEARCH INTERESTS	

Methods for competing risks data Methods and algorithms for survival analysis Machine learning methods for longitudinal data

#### PROFESSIONAL EXPERIENCE

July 2020 - now: Assistant Professor of Biostatistics, College of Public Health, University of Kentucky

August 2013 - Spring 2020: Graduate research assistant, Department of Biostatistics, University of North Carolina at Chapel Hill

*Fall 2017 - Spring 2020*: Biostatistical analyst and grant reviewer at North Carolina Translational and Clinical Institute, (NC TraCS), Department of Biostatistics, University of North Carolina at Chapel Hill

Spring 2014 - Fall 2019: Statistical consultant, Biometric Consulting Laboratory, Department of Biostatistics, University of North Carolina at Chapel Hill

August 2016 - Spring 2020: Graduate teaching assistant, Department of Biostatistics, University of North Carolina at Chapel Hill

August 2010 - May 2013: Graduate teaching assistant, Department of Mathematics, Southern Illinois University, Carbondale

Summer 2010: Graduate research assistant, Department of Mathematics, Southern Illinois University, Carbondale

January 2009 - August 2010: Director of Student Success Center, Mathematics Instructor and ADA Coordinator, Southeastern Illinois College, Harrisburg

*Fall 2008*: Mathematics Instructor, Department of Maths and Statistics, Youngstown State University, Ohio

Summer 2008: Graduate research assistant, Department of Economics, Youngstown State University, Ohio

January 2007 - August 2008: Graduate teaching assistant, Department of Mathematics and Statistics, Youngstown State University, Ohio

June 2005 - December 2006: Senior research assistant, Department of Science and Mathematics Education, University of Cape Coast, Cape Coast

Spring 2004 - Fall 2008: High school mathematics teacher, Chaney High, Wesley Girls High, st. Augustine's College.

# HONORS AND AWARDS

Faculty Success Program, National Center for Faculty Development and Diversity May 2022 - April 2022

Research Scholars Program, University of Kentucky	May 2022 - April 2022
Wethington Award - Investigator initiated extramural funding, University of H	Kentucky 2022, 2023
Dissertation Completion Fellowship Award, University of North Carolina	2019 - 2020
T32: Ruth L. Kirschstein National Research Service Award	2019 - 2020
Outstanding Incoming Student Alumni Scholarship Award	August 2013

# **CONFERENCES PAPERS**

Adatorwovor, R. and Pan, Y. "A Flexible Copula Model for Bivariate Survival Data with Dependent Censoring". ENAR Spring Meeting, March 2023, Nashville, Tennessee.

Adatorwovor, R. and Pan, Y. "A Flexible Copula Model for Bivariate Survival Data with Dependent Censoring". ISCB43, August 2022, Newcastle University, United Kingdom.

Matthew Robinson and Adatorwovor, R. Novel Diet Development Index (DDI) at 4th Edition - Global Webinar on Endocrinology and diabetes, November 9th, 2021.

Adatorwovor, R. (2020). "A Nonparametric Survival Estimation Method for Dependent Competing Risks: An Application in Relative Survival Analysis". 13th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2020), King's College London, UK.

Contributed paper on statistical methodology: Adatorwovor, R. International Society for Clinical Biostatistics (ISCB), Krakow, Poland, August, 2020.

Contributed paper on statistical methodology: Joint Statistical Meeting, Philadelphia, Pennsylvania, August, 2020

Contributed paper on statistical methodology: WNAR Biometrics Conference, Ankorage, Alaska, June, 2020

Contributed paper on statistical methodology: ENAR Biometrics Conference, Nashville, Tennessee, March, 2020

# COMPUTER SKILLS

# TEACHING AND MENTORING

University of Kentucky 2020:-Present

Graduate Courses: Survival Analysis (BST 661), Analysis of Categorical Data (BST 663)

Ian Boggero, Ph.D.: K23 Mentored Patient-Oriented Research Career Development Award

Aditi Desai, DMD: Graduate thesis committee, 2021-2023.

Julie Tokatlien DMD: Graduate thesis committee, 2022-2024.

Graduated Students:

Samer Sabbagh, DMD: Inflammatory and microbial profiles in African American and Caucasian Children and Adolescents, May 2023.

Lei Fang, Statistics Ph.D. High Dimensional Data Analysis: Variable Screening and Inference: Graduate student, May 2023.

Feitong Lei, BST Ph.D. August, 2022.

Tyler Rubino, DMD: Genetic profile associated with response to treatment in localized aggressive periodontitis: Graduate thesis: May, 2022.

## LEADERSHIP EXPERIENCE OR SERVICE

Fall 2022 - Present : Member, College of Public Health Graduate Committee
Spring 2022 : Chair, search committee to recruit assistant research professor for Center for Population Health (IPH) Spring 2022 : Interim Dean search committee member: College of Public Health, University of Kentucky

Spring 2023 : Student Poster Judge, ENAR Spring Meeting, Nashville, TN

### **PROFESSIONAL MEMBERSHIPS**

- Member, Markey Cancer Center (MCC)
- CCTS/CRSO, University of Kentucky
- American Statistical Association (ASA)
- International Biometric Society (IBS)
- International Society for Clinical Biostatisticians (ISCB)
- Computational and Methodological Statistics (CMStatistics)

## INVITED TALKS

- Department of Mathematical Sciences, New Jersey Institute of Technology, April 2023.
- Center for Clinical and Translational Services, University of Kentucky, November 2022.
- Department of Bioinformatics and Biostatistics, School of Public Health and Information Sciences, University of Louisville, October 2021.

# PUBLICATIONS

# A. Collaborative Peer-Reviewed, Journal

- R. Clay Bunn, PhD, Reuben Adatorwovor, PhD, Rebecca R. Smith, PhD, Philip D. Ray, MS, Sarah E. Fields, Alexander R. Keeble, Christopher S. Fry, PhD, Sasidhar Uppugan, MS, Jeffry S. Nyman, PhD, John L. Fowlkes, MD, and Evangelia Kalaitzoglou, MD. Pharmacologic inhibition of myostatin with a myostatin antibody improves the skeletal muscle and bone phenotype of male insulin-deficient diabetic mice. JBMR Plus, June 2023. Under Review
- 2. Feitong Lei, PhD, Michelle R Lofwall, MD, Jana McAninch, MD, MPH, Reuben, Adatorwovor, PhD, Emily Slade, PhD, Patricia R Freeman, PhD, Daniela C Moga, MD, PhD, Nabarun Dasgupta, PhD, MPH, Sharon L Walsh, PhD, Rachel Vickers-Smith, and Svetla Slavova, PhD. Association between the Average Buprenorphine Dose during the First 30 Days of Treatment for Opioid Use Disorder and Mortality. JAMA. June 2023. Under review.
- 3. Kamyar Asadipooya, Artin Asadipooya, and **Reuben Adatorwovor**. SARS-CoV-2 treatment: why targeting receptor is a better idea. Nature communications, June 2023. Second Review.
- 4. Sarah C. Vos, Ph.D., Reuben Adatorwovor, Ph.D., Michelle K. Roberts, M.S., Deanna Sherman, Delaney Bonds, M.P.H., Madeline N. Dunfee, M.S., M.P.H., Bonnie Spring, Ph.D., Nancy E. Schoenberg, Ph.D. "Community engagement through social media: A promising low-cost strategy for rural recruitment?" Journal of Rural Health, April 2023. Under review
- 5. James W Keck,, Reuben Adatorwovor, Matthew Liversedge1, Blazan Mijotavich3, Cullen Olsson1, William Strike, Atena Amirsoleimani3, Ann Noble3, Soroosh Torabi, Alexus Rockward4, Mohammad Dehghan Banadaki3, Ted Smith5, Parker Lacy, Scott Berry. "Performance of wastewater surveillance for identifying SARS-CoV-2 infections in Kentucky long-term care facilities, 2021-2022". Plos One, April 2023. Under review.
- Andriankaja, O. M., Levine, M. M., Kantarci, A., Hasturk, H., Shaddox, L. M., Adatorwovor, R., Ramirez-Vick, M., Graves, D. T. Elevated or increase in gingival crevicular fluids (GCF) of inflammatory markers and bone related factors and Periodontitis Occurrence in Hispanics with Diabetes (II). June 2023. Under review.
- 7. Andriankaja, O. M., Levine, M., Kantarci, A., Hasturk, H., Shaddox, L. M., **Adatorwovor, R.**, Graves, D. T. Elevated or increase in serum and gingival crevicular fluids (GCF) of inflammatory markers and Periodontitis Occurrence in Hispanics with Diabetes (I). April 2023.
- Andriankaja, O. M., Levine, M. A., Kantarci, A., Hasturk, H., Shaddox, L. M., Adatorwovor, R., Graves, D. T. (in press). Elevated Inflammatory Markers and Periodontitis Occurrence in Hispanics with Diabetes. Journal of Dental Research, may 2023 Accepted.
- Laneshia Cornnor, and Reuben Adatorwovor. Looking for HIV Risk in All the Wrong Places: Predictors of HIV Risk Among Older Adults by U.S. Regions", Scientific Reports, April 2023. Under Review.
- 10. Valle, Natercia; Sommer, Max; Guo, Yi; Ritzhaupt, Albert; Muller, Keith; Maldonado-Molina, Mildred; Salloum, Sandra; Shenkman, Elizabeth; Zamperlini, Michelle; Campbell, Cyndi; Umans, Jason; Adatorworvor, Reuben; Nikitin, Ruslan; Alegria, Margarita; Dimarzio, Karissa; Cicutto, Lisa; Shaw, Jessica; Wynia, Matthew; Coors, Marilyn; Glueck, Deborah. "Workshop on Power and Sample Size Analysis for Health Science Researchers: Using a Collaborative Design Pedagogy to Promote Problem-Centered Instruction". Journal of Pedagogy in Health Promotion. under Review
- 11. James W Keck, Jess Lindner, Matthew Liversedge, Blazan Mijatovic, Cullen Olsson, William Strike, Anni Noble, **Reuben Adatorwovor**, Parker Lacy, Ted Smith, Scott M Berry. "Wastewater Surveillance for SARS-CoV-2 in Long-Term Care Facilities: Mixed Methods Evaluation". July 2023. JMIR: Acepted.

- 12. Davarpanah MA, Adatorwovor R, Mansoori Y, Ramsheh FSR, Parsa A, Hajiani M, Faramarzi H, Kavuluru R, Asadipooya K. Combination of spironolactone and sitagliptin improves clinical outcomes of outpatients with COVID-19: a prospective cohort study. J Endocrinol Invest. 2023 Jun 24. doi: 10.1007/s40618-023-02141-0. Epub ahead of print. PMID: 37354247.
- Glover LM, Martin CL, Green-Howard A, Adatorwovor R, Loehr L, Staley-Salil B, North KE, Sims M. Cumulative socioeconomic status and incident type 2 diabetes among African American adults from the Jackson heart study. SSM Popul Health. 2023 Mar 28;22:101389. doi: 10.1016/j.ssmph.2023.101389. PMID: 37168250; PMCID: PMC10165449.
- 14. Marshall NE, Blanton MB, Doratt BM, Malherbe DC, Rincon M, True H, McDonald T, Beauregard C, Adatorwovor R, Messaoudi I. SARS-CoV-2 vaccine booster elicits robust prolonged maternal antibody responses and passive transfer to the offspring via the placenta and breastmilk. Am J Obstet Gynecol MFM. 2023 Feb;5(2):100830. doi: 10.1016/j.ajogmf.2022.100830. Epub 2022 Nov 30. PMID: 36462615; PMCID: PMC9710099.
- 15. Tabaa M, Adatowovor R, Shabila A, Morford L, Dawson D, Harrison P, Aukhil I, Huang H, Stromberg A, Goncalves J, Shaddox LM. Pattern of grade C molar-incisor pattern periodontitis in families. J Periodontol. 2022 Nov 12. doi: 10.1002/JPER.22-0317. Epub ahead of print. PMID: 36370032.
- 16. Abbasi, F., **Adatorwovor, R.**, Davarpanah, M. A., Mansoori, Y., Hajiani, M., Azodi, F., ... & Asadipooya, K. (2022). A Randomized Trial of Sitagliptin and Spironolactone With Combination Therapy in Hospitalized Adults With COVID-19. Journal of the Endocrine Society, 6(4), bvac017.
- 17. Castle, J. T., Adatorwovor, R., Levy, B. E., Marcinkowski, E. F., Merritt, A., Stapleton, J. L., & Burke, E. E. (2022). Completion Lymph Node Dissection for Melanoma Before and After the Multicenter Selective Lymphadenectomy Trial-II in the United States. Annals of Surgical Oncology, 1-10.
- Adatorwovor R, Sharma N, McCoy D, Wasserstrom S, Robinson M, Nyenhuis J, Suryanarayanan S. The Efficacy of Plant-Based Dietary Program in Patients with Diabetes: A Pilot Study. Diabetology. 2021; 2(4):259-271. https://doi.org/10.3390/diabetology2040024.
- Eshghi, M, Adatorwovor, R., Preisser, J.S., Crais, E.R., Zajac, D.J. Lexicogrammatical Skills in Two-Year-Old Children with Repaired Cleft Palate, Children with Otitis Media, and Typically Developing Children. Journal of Clinical Linguistics & Phonetics, July 15, 2021.
- 20. Dunham, C, Adatorwovor, R., Brame, J, White, B, A and Weintraub J. Teledentistry Knowledge, Attitudes and Curriculum Recommendations Among Dental and Dental Hygiene Students. Journal of Dental Hygiene. October 2021.
- 21. Davis, S., Ross, M. S. H., Adatorwovor, R., and Wei, H. "Telehealth and Mobile Health Interventions in Adults with Inflammatory Bowel Disease: A Mixed Methods Systematic Review". "Research in Nursing & Health. Vol 44, Feb 2021, 155-172.
- 22. Zajac, D. J., Vallino, L. D., Baylis, A. L., Adatorwovor, R., Preisser, J. S., and Vivaldi, D. "Emergence of Prevocalic Stop Consonants in Children with Repaired Cleft Palate. Journal of Speech, Language, and Hearing Research, (2020): 1-10.
- 23. Weintraub, J. A., Edwards, L. R., Brame, J. L., Lampiris, L., White, B.A., Adatorwovor, R., Matthews, N.S.. Teledentistry Knowledge and Attitudes Before and After a Statewide Summit: Perspectives on the role of dental hygienists. Journal of Dental Hygiene, (2020), 94-4, 13-21.
- 24. Eshghi, M, Adatorwovor, R., Preisser, J.S., Crais, E.R., Zajac, D.J. Vocabulary Growth From 18 -24 Months of Age in Children with Repaired Cleft Palate. JSLHR. (2019); 1-18.
- 25. Berry, D. C., McMurray, R. G., Schwartz, T. A., Adatorwovor R. Benefits for both African

American and White Low-Income 7-10-Year-Old. Children and their Parents Taught Together in a Community-Based Weight Management Program in the Rural Southeastern United States. BMC Public Health, (2018) 18:1107.

- 26. Berry, D. C., McMurray, R. G., Schwartz, T. A., Hall E. G., Neal,M. N., Adatorwovor, R., A cluster randomized controlled trial for child and parent weight management: children and parents randomized to the intervention group have correlated changes in adiposity. BMC Obesity, 2017(4:39), Dec 04,2017.
- 27. Anderson J. J. B, Adatorwovor R., et al. Lack of Influence of Calcium-to-Phosphorus Ratio on Hip and Lumbar Bone Mineral Density in Older Americans: NHANES 2005-2006 Cross-sectional Data. J. Endocr. Soc. (2017) 1 (5): 407-414.
- 28. Berry, D. C., Hall E. G., Neal, M. N., Adatorwovor, R., et al. Final Results of the Optimizing Outcomes in Women with Gestational Diabetes Mellitus and their Infants Cluster Randomized Controlled Pilot Study: Lessons Learned. Journal of NBNA, December 2016, Vol. 27 Number 2.
- 29. Stuebe, A. M., Bonuck, K. Adatorwovor, R. et al. A cluster randomized trial of tailored breastfeeding support for women with gestational diabetes. Breastfeeding Medicine, 11.10 (2016): 504-513.
- 30. Adatorwovor, R., Roggenkamp, K., and Anderson, J.J.B. Intakes of Calcium and Phosphorus and Calculated Calcium-to-Phosphorus Ratios of Older Adults: NHANES 20052006 Data. Nutrients 7:9633-9639, 2015.

# B. Methodological Statistics Peer-reviewed, Journal

- 1. **Reuben Adatorwovor** and Yinghao Pan. A Flexible Copula Model for Bivariate Survival Data with Dependent Censoring. June 2023, Journal of Biostatistics.
- 2. Adatorwovor, Reuben, Latouche, Aurelien and Fine, Jason P.. "A parametric approach to relaxing the independence assumption in relative survival analysis" The International Journal of Biostatistics, vol., no., 2022. https://doi.org/10.1515/ijb-2021-0016
- 3. Adatorwovor, R., Little, P. and Fine, J., P. Dependence Competing Risk in Relative Survival Analysis with dMrs Package". Journal of Statistical Software. April 2023. Under Review.
- 4. Adatorwovor, R. and Latouche, A., A Nonparametric Survival Estimation Method for Dependent Competing Risks: An Application in Net Survival Analysis. J of Stats in Medicine. March 2023. Under review.
- 5. Adatorwovor, R., and Fine, J., P. Covariate Effect for Dependence Competing Risk in Relative Survival Analysis. In preparation.

### C. Abstracts

- 1. Evangelia Kalaitzoglou, **Reuben Adatorwovor**, Rebecca Smith , Philip Ray , Alexander Keeble, Christopher Fry, Sasidhar Uppuganti , Jeffry Nyman, John Fowlkes, R. Clay Bunn. Pharmacologic inhibition of myostatin with a myostatin antibody protects against muscle and bone loss in an STZinduced mouse model of type 1 diabetes. 11th International Meeting for Pediatric Endocrinology (IMPE). March 4th-7th.
- Castle, J. T., Adatorwovor, R., Levy, B. E., Marcinkowski, E. F., Merritt, A., Stapleton, J. L., & Burke, E. E. Multicenter Selective Lymphadenectomy Trial-II's Impact on Completion Lymph Node Dissection Rates. ASC20230120 18th Annual Academic Surgical Congress. February, 2023, Houston, TX.
- 3. Andriankaja,oelisoa, Hatice Hasturk, Alpdogan. Kantarci, Michael Levine, Reuben Adatorwovor, Dana T Graves, Jorge Duconge Soler Margarita Ramirez, Kai Guo, Shaddox, Luciana

M. Lipid-lowering Agents, Endothelial Function, and Inflammation in Type 2 Diabetes. Abstract October 2022.

- 4. Jennifer Castle, MD, **Reuben Adatorwovor, Ph.D.**, Brittany Levy, Emily Marcinkowski, MD, Allison Merritt, Jerod Stapleton, Ph.D., Erin Burke, MD, MS. Completion Lymph Node Dissection for Melanoma Before and After the Multicenter Selective Lymphadenectomy Trial-II in the United States. September 2022, KY ACS Oral Presentation.
- 5. Feitong Lei, Daniela Moga1, Emily Slade, Lindsey Hammerslag1, Nabarun Dasgupta2, Michelle Lofwall1, Patricia R. Freeman1, Bethany DiPrete, **Reuben Adatorwovor** and Svetla Slavova. Patterns of Buprenorphine Initiation Treatment for Opioid Use Disorder and Association with Opioid-related Overdose Deaths, ispe ICPE 2022, Denmark.
- 6. **Reuben Adatorwovor** and Yinghao Pan. A Flexible Copula Model for Bivariate Survival Data with Dependent Censoring. ISCB 43, Newcastle, UK.
- 7. OM Andriankaja, MA. Levine, A. Kantarci, H. Hasturk, LM. Shaddox, R. Adatarwovor, and DT. Graves. "Elevated Inflammatory Markers and Periodontitis Risk (Occurrence?) in Hispanics with Diabetes". submitted for presentation consideration at the 2022 IADR/APR General Session & Exhibition.
- 8. Thakur, K.\*, Adatorwovor, R., McFarlin, J., Stapleton, J. L., & Grigorian, A. (2021, October). Utilization of palliative care in management of inpatients with decompensated cirrhosis at an academic tertiary care center. Poster session at the 2021 Liver Meeting of the American Association for the Study of Liver Diseases, Anaheim, CA.
- 9. Jennifer Castle, MD, **Reuben Adatorwovor, Ph.D.**, Emily Marcinkowski, MD, Allison Merritt, Jerod Stapleton, Ph.D., Erin Burke, MD, MS. "Completion Lymph Node Dissection for Melanoma Before and After the Multicenter Selective Lymphadenectomy Trial-II in the United States". December 2021, SSO Abstract, Annals of Surgical Oncology.
- LaShaunta M. Glover, MS; Chantel Martin, Ph.D., MS PH; Reuben Adatarwovor Ph.D.; Laura Loehr, MD, Ph.D., MS; Brooke Staley-Salila; Kari E. North, Ph.D.; Mario Sims, Ph.D., MS. The Association Of Cumulative Socioeconomic Status And Incident Type 2 Diabetes Among African Americans: The Jackson Heart Study. EPI 2022. Number 478.
- 11. Tabaa M, Morford L, Stromberg A, **Adatarwovor, R**, Shaddox LM. Pattern of Grade C Molars and Incisors Periodontitis (C-MIP) in Families," submitted for presentation consideration at the 2022 AADOCR/CADR Annual Meeting & Exhibition.
- 12. Adatarwovor, Reuben Ph.D., and Latouche, Aurelien, Ph.D. and Fine, Jason, Ph.D.. Relaxing the Independence Assumption in Relative Survival Analysis: A Parametric Approach. JSM 2020.
- Kshitij Thakur MD, Jessica McFarlin MD, Alla Grigorian MD Ph.D., Adatarwovor, Reuben Ph.D., Jerod Stapleton Ph.D.. Utilization of Palliative Care in Management of Inpatients with Decompensated Cirrhosis at an Academic Tertiary Care center. UK college of medicine, March 2021.
- Rubino, T., Dawson, D., Hartsfield, J., Morford, L., Adatarwovor, R., Judge, S., Segerstrom, S., & Shaddox, L. "Genetic Profile Associated with Treatment Response Grade-C Molar-Incisor-Pattern Periodontitis". 2021 IADR/AADR/CADR General Session-Abstract, Boston, Mass, USA.
- Dunham, C., Adatorwovor, R., Brame, J, White, B., A. and Weintraub J. Dental and Dental Hygiene Students Knowledge and Attitudes Regarding Teledentistry. 2020 ADEA Annual Session & Exhibition, National Harbor, MD.
- 16. S.A. Dua, L.R. Edwards, **R. Adatorwovor**, N.S. Matthews. The Integration of Telehealth and Interprofessional Collaboration in a Virtual Clinic Model for the Management of Patients with

Juvenile Idiopathic Arthritis. 2019 ADEA annual session, Chicago IL.

- 17. Jane A. Weintraub, Leiana Edwards, Jennifer Brame, Lewis Lampiris, B. Alex White, Reuben Adatorwovor, N. Shaun Matthews. Teledentistry Knowledge and Attitudes of Stakeholders Before and After a Statewide Teledentistry Summit. 2019 IADR/AADR/CADR General Session-Abstract, Vancouver, BC, Canada.
- 18. Marziye Eshghi, **Reuben Adatorwovor**, John S. Preisser, Elizabeth R. Crais, David J. Zajac. Vocabulary Growth from 18 to 24 Months of Age in Children with and without Repaired Cleft Palate. Abstract submitted in April 2018 to ACPA. Published in ASHA convention, Sep 2018.
- 19. Alison M. Stuebe, K Bonuck, **Reuben Adatorwovor** et. al. A tailored breastfeeding support intervention for women with gestational diabetes. Published abstract AJOG, vol 214, ps68, 2016