

# Sandra E. Safo

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DATE UPDATED April 3, 2023

## CONTACT INFORMATION

Division of Biostatistics  
School of Public Health  
University of Minnesota  
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## MULTI-VIEW DASHBOARD

[https://multi-viewlearn.shinyapps.io/MultiView\\_Modeling/](https://multi-viewlearn.shinyapps.io/MultiView_Modeling/)

## EDUCATION

- The University of Georgia, Athens, GA, PhD Statistics, 2014
  - Dissertation Title: *“Design and Analysis Issues in High Dimension, Low Sample Size Problems”*
- The University of Akron, Akron, OH, MSc. Applied Mathematics, Dec 2009
  - Thesis Title: *“A Game-Theoretic Framework to Competitive Individual Targeting”*
- University of Ghana, Accra, Ghana, BA Economics and Mathematics, May 2006

## CURRENT RESEARCH INTERESTS

### Methodology

- Integrative analysis of data from multiple sources (e.g., genomics, metabolomics, proteomics, EHR)
- Statistical and machine learning (Classification, Discrimination, Clustering, Deep Learning)
- Functional Data Analysis
- Sample Size Methods for high dimensional data

### Applied

- Co-morbidities in HIV (e.g., cardiovascular diseases, COPD)
- Diabetes

## PROFESSIONAL POSITIONS

- **Assistant Professor of Biostatistics- Tenure-Track** Aug 21 2017-  
Division of Biostatistics, University of Minnesota, Minneapolis, MN
- **Data Science Graduate Faculty Member** October 2020-  
University of Minnesota, Minneapolis, MN
- **Assistant Professor of Biostatistics-Research** Feb 2016 - Aug 2017  
Rollins School of Public Health, Emory University, Atlanta, GA
- **Postdoctoral Fellow** Sep 2014 - Jan 2016  
Rollins School of Public Health, Emory University, Atlanta, GA  
Atlanta Veterans Affairs Medical Center, Decatur, GA
- **Statistical Consulting Assistant** Aug 2010 - Jul 2011  
Statistical Consulting Center, Department of Statistics, University of Georgia, Athens, GA

## HONORS, AWARDS

- **McKnight Land-Grant Professor, University of Minnesota**, 2023-2025
- Standing Member, NIH, Analytics and Statistics for Population Research Panel A (ASPA) Study Section, July 2022-June 2026
- NIH Outstanding Investigator Award (MIRA ESI), 2021-2026
- Elected Member, International Statistical Institute (ISI), 2022
- **UMN CTSI KL2 Scholar**, Sep 2018- October 2021
- Emory **BIRCWH** (Building Interdisciplinary Research Career in Women's Health) Scholar, March 2016- July 2017
- NIH NHLBI PRIDE (Programs to Increase Diversity among Individuals Engaged in Health-Related Research) Cardiovascular Genetics Epidemiology Scholar, Washington University, St Louis, 2016-2018

## PROFESSIONAL ACTIVITIES (OUTSIDE UMN)

### Grant Reviewer

- Standing Member, NIH, Analytics and Statistics for Population Research Panel A (ASPA) Study Section, July 2022-June 2026 [4-year term]
- Adhoc Reviewer, NIH, Biostatistical Methods and Research Design (BMRD) Study Section, 2021
- Adhoc Reviewer, NIH, Special Emphasis Panel (U2C grant mechanism), 2021
- Early Career Reviewer, NIH, Biodata Management Analyses (BDMA) Study Section, 2020, 2022

### Advisory

- Elected Member, ENAR (International Biometric Society/Eastern North America Region) Regional Committee (RECOM), 2023-2025 [3-year term]
- Invited Member, Regional Advisory Board (RAB), International Biometric Society/Eastern North America Region, 2020-2022 [3-year term]

### American Statistical Association (ASA) Section on Statistics in Genetics and Genomics (SSGG)

- Membership Engagement Committee (MEC) of the ASA Section on Statistics in Genetics and Genomics (SSGG), 2021-
- Chair, Mentoring Subcommittee, MEC SSGG, 2021-

### Conference Session Chair

- Co-chair (Invited), Precision Medicine Session, Cold Spring Harbor Biological Data Science Workshop, November, 2020
- Chair (Invited), International Chinese Statistical Association (ICSA)
  - Title: “Challenges and Recent Developments in Biomarker Research”, 2016

### Program Committee Member

- 2022 IEEE International Conference on Bioinformatics and Biomedicine (reviewed 8 conference papers)

### Editorial Services

#### Journal Referee

- *Statistics and Computing*
- *BMC Medical Research Methodology*
- *IEEE Transactions and Signal Processing*

- *BMC Bioinformatics*
- *Statistics in Medicine*
- *Evolutionary Bioinformatics*
- *Statistical methods in medical research*
- *BMC Medical Research Methodology*
- *Journal of Computational Graphics*
- *Biometrics*

#### Book Review

- The American Statistician, 2018. Expect the Unexpected: A First Course in Biostatistics by Raluca Balan and Gilles Lamothe. World Scientific Publishing Co. Pte. Ltd, 2017 (2nd Edition). ISBN 978-981-3209-05-03Ltd

#### **Other Professional Services**

- ASA Biometrics Byar and JSM Travel Awards Committee

#### **Professional Memberships**

- American Statistical Association
- Eastern North America Region

#### FUNDING HISTORY **Active Funded Projects**

1. **Title:** Statistical and Machine Learning Methods to Address Biomedical Challenges for Integrating Multi-view Data  
**Source:** NIH NIGMS R35  
**Role:** Principal Investigator (and sole investigator on proposal)  
**Period:** September 2021- June, 2026  
**Effort:** 51% annual FTE  
**Direct Award:** \$1,163,935
2. **Title:** The Tale of Two Pandemics- Understanding racial and ethnic disparities from the collision of HIV and COVID-19 in the U.S.  
**Source:** NIH NIMH R01  
**Role:** Subcontract Principal Investigator  
**PI:** Rena Patel, University of Washington  
**Period:** July 2022- June, 2027  
**Effort:** 10% annual FTE
3. **Title:** Understanding the long term impact of COVID-19 on the brain through advanced MR imaging and spectroscopy  
**Source:** NIH NINDS R01  
**Role:** Co-investigator  
**PI:** Gulin Oz, Kejal Kantarci, and Eva-Maria Ratai  
**Period:** July 2021- June, 2026  
**Effort:** 10% annual FTE
4. **Title:** Circuit-based deep brain stimulation for Parkinson's disease  
**Source:** NIH NINDS P50  
**Role:** Co-investigator  
**PI:** Vitek, Jerrold  
**Period:** September 2021- July, 2026

**Effort:** 9% annual FTE (from November, 2021)

5. **Title:** Comprehensive Assessment Of Signal Transduction Pathways In Sarcoidosis  
**Source:** FOUNDATION FOR SARCOIDOSIS RESEARCH  
**Role:** Co-investigator  
**PI:** Bhargava, Maneesh  
**Period:** September 2021- August, 2023  
**Effort:** 1% effort

#### **Completed Funded Projects**

- **Title:** Integrative Omics to Assess Contributions of Nontraditional Risk Factors to CVD in HIV-Infected Men and Women  
**Source:** NIH Clinical and Translational Science Institute at UMN, KL2  
**Role:** Principal Investigator  
**Period:** September 2018- October, 2021  
**Effort:** 75% FTE (2018-Sep 22, 2021), 24% (Sep 23, 2021 -October 2021)  
**Award:** \$100,000 salary support and \$25,000 research costs per year
  
- **Title:** Statistical methods for identifying genetic markers of atherosclerosis in HIV-infected women  
**Source:** NIH Office of Women's Research UMN, BIRCWH  
**Role:** Principal Investigator  
**Period:** March 2016- July, 2017  
**Effort:** 75% FTE  
**Award:** \$100,000 salary support and \$25,000 research costs per year
  
- **Title:** HIV Biomarker Testing  
**Source:** Leidos/NIH R01  
**Role:** Statistician  
**PI:** James Neaton  
**Period:** April 2018- December, 2021  
**Effort:** 10% annual FTE  
**Direct Award:** \$1,200,000
  
- **Title:** Advancing Treatment for Pancreatitis: A Prospective Observational Study of TPIAT (POST)  
**Source:** NIH NIDDK R01  
**Role:** Statistician  
**PI:** Melena Bellin  
**Period:** 6/1/16-3/31/22  
**Effort:** 5% annual FTE (funded during last two years of grant)  
**Direct Award:** \$2,230,485

#### **Pending Scientific Review**

- **Title:** Supplement to Statistical and Machine Learning Methods to Address Biomedical Challenges for Integrating Multi-view Data  
**Source:** NIH NIGMS  
**Role:** PI  
**Period:** 07/01/2023-06/30/2024  
**Total Award Amount (including indirect costs):** \$352,062

Effort: 25% FTE

PUBLICATIONS AND  
MANUSCRIPTS

## Peer-Reviewed

Underlined indicates mentored or supervised student author

\* indicates equal contributions

+ indicates senior, corresponding or co-corresponding author

1. +**Sandra E. Safo**, Lillian M. Haine, Jason Baker, Cavan Reilly, Daniel Duprez, James Neaton, Mamta K. Jain, Alejandro Arenas-Pinto, Jiuzhou Wang, Mark N. Polizzotto, Therese Staub [Derivation of a protein risk score for cardiovascular disease for a multiethnic HIV+ cohort](#), *Journal of the American Heart Association* 2023
2. Cavan S Reilly, Álvaro H Borges, Jason V Baker, **Sandra E. Safo**, Shweta Sharma, Mark N Polizzotto, James S Pankow, Xiaojun Hu, Brad T Sherman, Abdel G Babiker, Jens D Lundgren, H Clifford Lane, Investigation of Causal Effects of Protein Biomarkers on Cardiovascular Disease in Persons With HIV, *The Journal of Infectious Diseases*, 2022; jiac496, <https://doi.org/10.1093/infdis/jiac496>
3. Weijie Zhang, Christine. Wendt, Russel Bowler, Craig. P. Hersh, and, +**Sandra E. Safo**, [Robust Integrative Biclustering of Multi-view data](#), *Statistical Methods in Medical Research* 2022
4. Haeleab Hilafu and **Sandra Safo** [Sparse sliced inverse regression for high dimensional data analysis](#), *BMC Bioinformatics* 2022
5. Northrop, E., Wendt, C., Bowler, R., Hersh, C., **Safo, S.**, & Lock, E. [sJIVE: Supervised Joint and Individual Variation Explained](#), 2022, *Computational Statistics and Data Analysis* Preprint available at <https://arxiv.org/abs/2102.13278>
6. Danika Lipman, +**Sandra E. Safo**, & +Thierry Chekouo [Multi-omic analysis reveals enriched pathways associated with COVID-19 and COVID-19 severity](#) , *PLOS ONE*, 2022
7. Migle Gabrielaite , Marc Bennedbæk , Adrian G Zucco , Christina Ekenberg , Daniel D Murray, Virginia L Kan, Giota Touloumi , Linos Vandekerckhove , Dan Turner , James Neaton 7, H Clifford Lane , **Sandra Safo** , Alejandro Arenas-Pinto , Mark N Polizzotto , Huldrych F Günthard , Jens D Lundgren , Rasmus L Marvig , INSIGHT START trial group [Human immunotypes impose selection on viral genotypes through viral epitope specificity](#), *Journal of Infectious Diseases*, 2021
8. Thierry Chekouo, **Sandra E. Safo**\* [Bayesian Integrative Analysis and Prediction with Application to Atherosclerosis Cardiovascular Disease](#), *Biostatistics*, 2021
9. **Safo, S.**, Min, E.J., & Haine, L. [Sparse Linear Discriminant Analysis for Multi-view Structured Data](#). *Biometrics*, 2021
10. Groene, E. A., Valeris-Chacin, R. J., Stadelman, A. M., **Safo, S. E.**, & Cusick, S. E. [Maternal HIV and child anthropometric outcomes over time: an analysis of Zimbabwe demographic health surveys](#). *AIDS* (London, England), 2021
11. Haeleab Hilafu, **Sandra Safo**, Lillian Haine [Sparse reduced-rank regression for integrating omics data](#), *BMC Bioinformatics*, 2020
12. L. R. Staimenz, M. K. Rhee, Y. Deng, **S. E. Safo**, S. M. Butler, B. T. Legvold, S. L. Jackson, C. N. Ford, P. W. F. Wilson, Q. Long, L. S. Phillips. [Retinopathy develops at similar glucose levels but higher HbA1c levels in people with black African ancestry compared to white European ancestry: evidence for the need to individualize HbA1c interpretation](#). *Diabetic Medicine*, 2020

13. **Safo S E**, Long Q. [Sparse linear discriminant analysis in structured covariates space](#). *Statistical Analysis and Data Mining: The ASA Data Science Journal* 2018; 1-14.
14. Eun-Jeon Min, **Sandra E. Safo**, and Qi Long. [Penalized co-inertia analysis with applications to -omics data](#) *Bioinformatics*, 2019 Aug 28. doi: 10.1093/bioinformatics/bty726.
15. **Sandra E. Safo**, Jeongyoun Ahn, Yongho Jeon, Sungkyu Jung. [Sparse generalized eigenvalue problem with application to canonical correlation analysis for integrative analysis of methylation and gene expression data](#). <https://arxiv.org/abs/1611.01066> *Biometrics*, 2018
16. Luiz Gustavo Gardinassi, Jianguo Xia, **Sandra E Safo**, Shuzhao Li. [Bioinformatics tools for the interpretation of metabolomics data](#). *Current Pharmacology Reports*. 2017, DOI 10.1007/s40495-017-0107-0
17. Z. Li, **S. E. Safo**, and Q. Long. [Incorporating biological information in sparse principal component analysis with application to genomic data](#). *BMC Bioinformatics*. 2017 Jul 11;18(1):332. doi: 10.1186/s12859-017-1740-7.
18. Mary K. Rhee, **Sandra E. Safo**, Sandra L. Jackson, Weingiong Xue, Qi Long, Darin E. Olson, Diana Barb, J. Sonya Haw, Anne M. Tomolo, Lawrence S. Phillips. [Inpatient glucose values: Determination of normal and utility in opportunistic diabetes screening](#). *American Journal of Preventive Medicine*. Apr;131(4):443.e11-443.e24. doi: 10.1016/j.amjmed.2017.09.021 (2017)
19. Jackson SL, Staimez LR, **Safo S**, Long Q, Rhee MK, Cunningham SA, Olson DE, Tomolo AM, Ramakrishnan U, Narayan VKM, Phillips LS. [Participation in a national lifestyle change program is associated with improved diabetes control outcomes](#). *Journal of Diabetes Complications*. 2017 Sep;31(9):1430-1436. doi:10.1016/j.jdiacomp.2017.06.001. Epub 2017 Jun 6.
20. **S. Safo**, S. Li, and Q. Long. [Integrative analysis of transcriptomic and metabolomic data via sparse canonical correlation analysis with incorporation of biological information](#). *Biometrics*. 2017 May 8. doi: 10.1111/biom.12715. [Epub ahead of print]
21. S. L. Jackson, **S. Safo**, L. R. Staimez, Q. Long, M. K. Rhee, S. A. Cunningham, D. E. Olson, A. M. Tomolo, U. Ramakrishnan, K. V. Narayan, et al. [Reduced cardiovascular disease incidence with a national lifestyle change program](#). *American Journal of Preventive Medicine*. vol. 52, iss. 4, pp. 459-468, 2017.
22. S. Jackson, **S. Safo**, L. Staimez, D. Olson, K. Narayan, Q. Long, J. Lipscomb, M. Rhee, P. Wilson, A. Tomolo, et al. [Glucose challenge test screening for prediabetes and early diabetes](#). *Diabetic Medicine: A Journal of the British Diabetic Association*. vol. 34, iss. 5, pp. 716-724, 2017.
23. **Sandra E. Safo** and Jeongyoun Ahn. [General sparse multi-class linear discriminant analysis](#). *Computational Statistics and Data Analysis*. 2016, 66, 81-90. <http://www.sciencedirect.com/science/article/pii/S0167947316000207>
24. **Sandra Safo**, Xiao Song and Kevin K. Dobbin. [Sample size determination for training cancer classifiers from microarray and RNA-seq data](#). *Annals of Applied Statistics* 2015, 9 (2) 1053-075 <http://arxiv.org/abs/1509.04897>

### Submitted Manuscripts Currently Under Review/Revision

1. +**Sandra E. Safo**, Han Lu [Scalable Randomized Kernel Methods for Multiview Data Integration and Prediction](#), 2023
2. Seth D Koenig, **Sandra Safo**, Kai J Miller, Alexander B Herman, David P Darrow [Flexible Multi-Step Hypothesis Testing of Human ECoG Data using Cluster-based Permutation Tests with GLMEs](#) bioRxiv 2023.03.31.535153; doi: <https://doi.org/10.1101/2023.03.31.535153>
3. Wang, H., Han Lu, +Sun, J., +**Safo, S E**. [Interpretable Deep Learning Method for Multi-view Learning](#). 2023- <https://arxiv.org/abs/2302.07930>

4. [Danika Lipman](#), <sup>+</sup>[Sandra E. Safo](#), & Thierry Chekouo [Integrative multi-omic analysis reveals enriched pathways associated with COVID-19 and COVID-19 severity](#) , 2022-
5. [Wang, J.](#), <sup>+</sup>[Sandra E. Safo](#), [Deep IDA: A Deep Learning Method for Integrative Discriminant Analysis of Multi-View Data with Feature Ranking–An Application to COVID-19 severity](#), 2021-, Preprint available <https://arxiv.org/abs/2111.09964>
6. [Sandra Castro-Pearson](#), [Sarah Samorodnitsky](#), [Kaifeng Yang](#), [Sahar Lotfi-Emran](#), [Nicholas E. Ingraham](#), [Carolyn Bramante](#), [Sarah Greising](#), [Emma K. Jones](#), [David Wacker](#), [Michael Puskarich](#), [Elizabeth Luszczyk](#), <sup>+</sup>[Sandra Safo](#), [Christopher J Tignanelli](#), [Proteomic pathways associated with developing severe disease for patients with COVID-19: a biologic analysis of data from two multicenter randomized controlled trials encompassing 13 U.S. hospitals](#) 2022-

## Manuscripts In Progress

1. [Butts, J.](#), [Wendt, C.](#), [Bowler, R.](#), [Hersh, C.](#), [Long, Q.](#), [Eberly, L.](#), & <sup>+</sup>[Safo, S.](#) [Accounting for data heterogeneity in integrative analysis and prediction methods: An application to Chronic Obstructive Pulmonary Disease \(COPD\)](#), 2021-,
2. [Miranda Kunz](#), [Kollin Rott](#) , [Lillian Haine](#), [Eric Hurwitz](#) , [Ken Kunisaki](#) , [Jessica Y Islam](#) , [Jing Sun](#), [Kenneth Wilkins](#) , [Rena C. Patel](#) , <sup>+</sup>[Sandra E. Safo](#) [The Intersections of COVID-19 and HIV: Machine Learning Methods to Identify and Evaluate Risk Factors in a Large National Dataset](#)
3. <sup>+</sup>[Safo, S E.](#) , [Wang, H.](#), [Han Lu](#), [Sun, J.](#) [Extensions to Interpretable Deep Learning Method for Multi-view Learning.](#) 2022-
4. [Tanvi Mehta](#), [Lillian M. Haine](#), [Jason Baker](#), [Cavan Reilly](#), [Daniel Duprez](#), [James Neaton](#), [Mamta K. Jain](#), [Alejandro Arenas-Pinto](#), [Jiuzhou Wang](#), [Mark N. Polizzotto](#), [Therese Staub](#), <sup>+</sup>[Sandra E. Safo](#), [Genetic and proteomic risk scores for cardiovascular disease in persons living with HIV](#), 2022-
5. [Sarthak, Jain](#), <sup>+</sup>[Sandra E. Safo](#), [Exploring the use of Euler Characteristics, Functional Principal Component Analysis, and Deep Learning for Longitudinal Multi-view Integration](#) , 2022-

CONFERENCES,  
SYMPOSIUMS,  
WORKSHOPS, AND  
MEETINGS

## Invited Oral Presentations and Seminars

- Sex Matters V-RIP: SCORE’s Virtual Research In Progress Meeting, Emory University, March 2023
- Advances in Statistical and Computational Methods for Analysis of Biomedical, Genetic, and Omics Data (In honor of Dr. Shili Li, Ohio State University) The University of Texas at Dallas, Richardson, Texas, United States, March 2023
- Probability and Statistics Conference at Southern Illinois University, October 2022
- CHARGE (Cohorts for Heart and Aging Research in Genomic Epidemiology) Proteomics Working Group, University of Washington, October 2022
- Udall Working Group Meeting, University of Minnesota, July 2022
- Biostatistics Program, Public Health Sciences Division, Fred Hutchinson Cancer Research Center, April 2022
- School of Public Health Research Day 5-Minute Lightning Round Presentations, University of Minnesota, April 2022
- IMA (Institute of Mathematical Analysis), University of Minnesota, February, 2022
- University of South Carolina, Department of Statistics, October 2021
- International Chinese Statistical Association (ICSA) Conference, September 2021
- University of Calgary, Department of Mathematics and Statistics, July 2021
- University of Massachusetts, Lowell, Department of Biology, April 2021

- Carnegie Mellon University (CMU), Computational Biology Department, Joint CMU and University of Pittsburgh Seminar Speaker, April 2021
- Stanford University, Stanford Center for Biomedical Informatics Research (BMIR), Feb 2021
- Cold Spring Harbor Laboratory, Biological Data Science Workshop, Nov 2020
- University of North Carolina at Chapel Hill, Department of Biostatistics, Nov 2020
- University of Minnesota, Department of Electrical Engineering and Computer Science, Machine Learning Seminar Series, Oct 2020
- University of Iowa, Department of Biostatistics, 2020
  - Due to COVID-19 related travel cancellation, this invited presentation was not given.
- Ucare, MN, 2020
- Joint Statistical Meetings, Colorado, 2019
- 47th Annual Meeting of the Statistical Society of Canada, 2019
- University of Pennsylvania, Department of Biostatistics, Epidemiology, and Bioinformatics, 2018
- University of St Thomas, Applied Probability and Statistics Seminar Series, 2018
- University of Minnesota, Summer Institute of Biostatistics (SIBS), 2018
- University of Minnesota, Division of Biostatistics, 2017
- Summer Research Conference of the Southern Regional Council on Statistics (SRCOS), 2017
- Emory University, Department of Biomedical Informatics exchange series, 2016
- Augusta University, 2016
- University of Rochester, Department of Biostatistics and Computational Biology, 2016
- International Chinese Statistical Association (ICSA) 2016 Applied Statistics Symposium, 2016
- Emory University, Department of Biostatistics and Bioinformatics, 2015
- SAMSI Bioinformatics: Statistical and Computational Challenges in Omics Data Integration Working Group, 2015

#### **Selected Contributed Oral and Poster Presentations**

- CHARGE (Cohorts for Heart and Aging Research in Genomic Epidemiology) Workshop, University of Washington, Seattle, October, 2022
- COPD Working Group, Virtual, April 2022
- Conference on Retroviruses and Opportunistic Infections (virtual CROI), Science Spotlight presentation at virtual CROI, 2021
- Translational Science 2021 Conference
- CTSI Annual Poster Session and Video Presentation, University of Minnesota, 2020, 2021
- 3 Minute Thesis (3MT) Competition UMN and University of Michigan, 2020
- IEEE DSAA 2016 Conference, Montreal, Canada, Oct 2016



UNIVERSITY  
SERVICE

**Division of Biostatistics**

- Faculty Development Committee, 2022-
- Tenure-track Faculty Search Committee, 2021-2022
- Research Committee, Division of Biostatistics, 2020-2022
- Student Paper Awards Committee, 2019
- Admissions Committee, 2017-
- Steering Committee Member, Biostatistics in Genetics and Genomics Training Program

**School of Public Health**

- SPH Recognition, Award and Honors (RAH) Committee, 2022-2025 (3-year term)
- Division Head Search Committee, Division of Biostatistics, School of Public Health, 2018-2020

**University-Wide**

- Multi-omics Data Task Force, Medical School (2022)
  - Member of an 8-member committee to identify the strengths and weaknesses of the Medical School’s capabilities in multi-omics analyses and to make recommendations to Dean of Medical School
- Co-organizer, Machine Learning Seminars, College of Science and Engineering, 2022-

TEACHING HISTORY  
(100%  
RESPONSIBILITY  
UNLESS OTHERWISE  
NOTED)

**Formal Teaching at University of Minnesota**

- PubH 8432, Probability Models for Biostatistics, Fall 2018, Fall 2019, Fall 2020, Fall 2021, Fall 2022
- PubH 6451, Biostatistics II, Fall 2021 (Co-teaching with Ann Brearley)
- PubH 7402, Biostatistics Modeling and Methods, Spring 2018

**Guest Lectures at Emory University**

- Gave two lectures on “A Short Introduction to Functional Data Analysis (FDA)” to 10 doctoral students, 2015, 2016
- Gave two lectures on “Introduction to Multivariate Analysis” to 8 doctoral students. 2015

**Formal Teaching at University of Georgia**

- STAT 2000: Introductory Statistics, 2013

**Formal Teaching at University of Akron**

- College Algebra, 2008 - 2009

**Independent Study**

- Directed Research, PUBH 8494, Summer 2018, Health Policy and Management MS Student

ADVISING AND  
FORMAL  
MENTORING

**PhD Dissertations, Chair/Co-chair**

- Kaifeng Yang, Biostatistics, PhD student, Summer 2022-
- Jessica Butts, (Co-advising with Lynn Eberly), Biostatistics PhD student, 2019-
  - Best student paper, Division of Biostatistics, 2021
- Elise Palzer, (Co-supervised with Eric Lock), Biostatistics PhD student, Completed, 2022

**Masters Thesis/ Data Science Capstone, Chair**

- Sarthak Jain, Data Science, 2022-
- Robert Aidoo, Biostatistics MS, (Completed 2023)

- Miranda Kuntz, Biostatistics MS, (Completed 2021)
- Weijie Zhang, Biostatistics MS, (Completed 2020)

#### **PhD Committees in Non-Chair Role**

- Sarah Samorodnitsky, Biostatistics PhD, 2022-
- Zhiyu Kang, Biostatistics PhD, 2021-
- Prince Boakye, Food Science, PhD, 2021-2022
- Clara Drew, Biostatistics PhD, 2021-2022

#### **MS Committees in Non-Chair Role**

- Dani Lipman, Biostatistics, University of Calgary, Canada (Co-supervising with Thierry Chekouo), 2021-
- Damon Leach, Biostatistics MS, 2021
- Mingqian Duan, Data Science MS, 2021
- Rui Cao, Biostatistics MS, 2021
- Connor Theisen, Data Science MS, 2021
- Raphael Mwangi, Data Science MS, 2021
- Xiang He, Biostatistics MS, 2020
- Mosunmoluwa Oyenuga, Epidemiology MS, 2018
- Abayomi Oyenuga, Epidemiology MS, 2018

#### **Undergraduate Students**

- Francine Legba, Carleton University, CTSI PrEP Scholar, Summer 2021
- Dani Lipman, Biostatistics, University of Calgary, Canada (Co-supervising with Thierry Chekouo), 2020-2021
- Chiran Li, School of Statistics, 2022-
- Jinsu An, University of Calgary, Canada (Co-supervising with Thierry Chekouo), Summer 2022

#### **High School**

- Orthniel Amanyi, Gwinnett School of Mathematics, Science, and Technology, GA, Summer 2022

#### **Research Assistants Supervised**

- Hengkang Wang, Computer Science PhD, Spring 2023
- Limeng Liu, Biostatistics PhD, Spring 2023
- Kody DeGolier, Biostatistics Msc, Spring 2023
- Monica Iram, Biostatistics Msc, Fall 2022
- Tiankai Xie, Biostatistics PhD, Fall 2022-
- Kollin Rott, Biostatistics PhD, Summer 2022-
- Kaifeng Yang (with Christopher Tignanelli), Biostatistics PhD, June 2021-
- Han Lu, Biostatistics PhD, 2021-
- Sarah Samorodnitsky (with Christopher Tignanelli), Biostatistics PhD, June 2021-August 2022
- Sandra Castro Pearson (with Christopher Tignanelli), Biostatistics PhD, September 2021-Spring 2022
- Andres Arguedas (with Lynn Eberly), Biostatistics MSc June 2021- Fall 2021

- Jessica Butts, Biostatistics PhD, 2019-
- Jiuzhou Wang, Biostatistics PhD, 2019-Summer 2021
  - Best PhD Poster for work on Deep IDA, Division of Biostatistics, 2022
- Ellise Palzer, Biostatistics PhD, (Fall 2019-Spring 2020, Summer 2022)

#### **Other Mentoring**

- Jianfeng Wang, Biostatistics, MSc (Volunteering) Fall 2022-
- Tanvi Mehta, Biostatistics, PhD (T32 Mentor), 2021-
- Hengkang Wang, Computer Science PhD (Co-supervising with Ju Sun, Computer Science), 2020-2022
- Lillian Haine, Biostatistics PhD (Volunteering), 2018-
- Chen Haoyou, Statistics MS (Volunteering), 2019-2021

#### **Academic Advising**

- Jialing Liu, Biostatistics MS, 2021-
- Zhiyu Kang, Biostatistics PhD, 2020-
- Michelle Sonnenberger, Biostatistics PhD, 2019-
- Damon Leach, Biostatistics MS, 2020-2022
- Rui Cao, Biostatistics MS , 2019-
- Weijie Zhang, Biostatistics MS, 2018-2020

#### **PROFESSIONAL Building Up Study**

##### **DEVELOPMENT ACTIVITIES**

Organized by University of Pittsburg, Sep 2020-2022

The purpose of this research study is to understand what factors contribute to career success. Approximately 220 post-doctoral researchers and junior faculty from 26 academic health centers across the country were invited to participate in this study. Participants attend monthly career development sessions.

#### **Hogan Leadership Assessment**

CTSI KL2 requirement, August 2019.

The Hogan Leadership Forecast Series includes three development-focused assessments. Each report, the Hogan Personality Inventory, Hogan Development Survey, and Motives, Values, Preferences Inventory, offers information regarding the characteristics, competencies, and values that underlie how a leader approaches work, leadership, and interaction with others in the workplace.

#### **Career Development Webinars/Seminars- Selected**

- Mentoring and Networking, 2022
- Social Media in Research, KL2, 2021
- Interviews and Interacting with the News, 2021
- PI Primer, KL2, 2021
- Building a National Reputation, 2020
- Managing your career in extraordinary times, 2020
- Creating an Academic Identity, 2019
- Assessing your mentoring relationship, 2019
- Dissemination and Data Sharing, 2019
- Creating a Micro-Agenda

- Science of Team Science, 2017
- Laying a Solid Foundation for a Lasting Academic Career, 2017
- Laying a Solid Foundation for a Lasting Academic Career, BIRCWH, 2017
- Achieving relevance and visibility in an academic research career -opportunities and potential pitfalls, Emory BIRCWH, 2017

### **Teaching**

- Early Career Teaching Program, University of Minnesota, 2017-2018
- Getting- and Then Keeping- Students Engaged. Presented by Mike Roberto, professor (Bryant University) and author of numerous simulations and multimedia cases
  - Organized by Harvard Business Publishing Education (March 31, 2021)

### **Certification**

- Early Career Teaching Program, University of Minnesota, 2017-2018
- Mentoring certificate, Atlanta Society of Mentors (ASOM) Mentoring series,” Atlanta, Georgia, August - October 2016
  - <http://www.atlantamentors.org/p/experinced-mentors.html>  
The series focused on faculty-trainee mentor relationships on the following topics: Conflict Management, Communication, Setting Expectations, Trainee Progress, Diversity and Inclusion, and Professional Development.