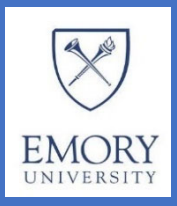




METRIC T32 News and Updates

Multidisciplinary Research Training to Reduce Inequalities
in Cardiovascular Health

September 2022



METRIC T32 Cycle 2, Year 7

The METRIC T32 was funded for a second cycle, years 6 through 10, beginning July 1, 2021. The new funding allowed us to grow the program to 5 slots for PhD students and 5 slots for postdoctoral fellows each year.

Program Director: Viola Vaccarino, MD, PhD

Program Co-Director for MD Postdoctoral Training: Arshed Quyyumi, MD

Program Co-Director for PhD Postdoctoral Training: Tené Lewis, PhD

Program Co-Director for Predoctoral Training: Shakira Suglia, PhD

Executive Committee:

Drs. Viola Vaccarino, Arshed Quyyumi, Tené Lewis, Shakira Suglia, Alvaro Alonso, Herman Taylor

Internal Advisory Board:

Drs. David Guidot (SOM), Carmen Marsit (RSPH), Gianluca Tosini (MSM)

External Advisory Board:

Drs. Michelle Albert (UCSF), Philip Greenland (Northwestern U), Neil Schneiderman (U Miami), Karen Matthews (U Pittsburgh)

Program Coordinator:

Lucy Shallenberger, MPH

Program Faculty:

35 core faculty from a variety of departments and schools, who serve as primary mentors

Fellows Appointed to Date:

11 predocs, 18 postdocs

By our METRIC Fellows:

- 107 research publications
- 6 predoctoral fellowship grants
- 1 K award
- 6 research-intensive faculty positions
- 7 other primarily research/public health positions





Shivang Desai, MD, Postdoctoral Fellow

Shivang studied biochemistry and molecular biology at Brown University before completing his M.D. training at the New York University School of Medicine. Since moving to Emory to complete residency training in internal medicine, his research interests have grown to include the study of biomarkers as predictive tools in cardiovascular health and prevention. As part of the METRIC program, he intends to examine how biomarkers can be used to better predict cardiovascular disease and to mitigate differences in outcomes between populations with different socioeconomic background.



Rebecca Jones, PhD, Postdoctoral Fellow

Rebecca received an MPH and a PhD in Nutrition and Health Sciences from RSPH. Her dissertation examined dietary change among foreign-born adults who moved to the US. Her current research interests center around the characterization of obesogenic environment within and across national borders that address diet- and weight-related cardiovascular health disparities. Within METRIC she is particularly interested in further training in the genetics and epidemiology of the key cardiovascular health outcomes that directly result from her exposures of interest (diet and weight status).



Nicole Fields, PhD, Postdoctoral Fellow

Nicole received her PhD in Epidemiology from the Department of Biostatistics and Epidemiology at the University of Massachusetts Amherst. She received her MPH in Health Behavior and Society from the University of Kentucky. Her dissertation focused on the association between psychological distress and adiposity primarily in Black women and how psychosocial factors such as interpersonal racism and social relationships affect mental and physical health. She is also interested in studying how resiliency factors may counteract stress and serve as potential intervention strategies to improve cardiometabolic health in marginalized populations.



Katie Campbell, Predoctoral Fellow

Katie is a fourth-year PhD student in Epidemiology at Emory University. She completed her bachelor's degree in Biology at the University of Maryland, followed by a MPH in Epidemiology from the University of Maryland, Baltimore. She then worked for three years as a research program coordinator for school-based health promotion studies at the University of Maryland School of Medicine in the Growth and Nutrition division. As a METRIC trainee, Katie is examining spatio-temporal trends in cardiovascular disease and health equity, as well as risk factors for cardiovascular disease as they relate to maternal and child health.



Jasmine Aqua, Predoctoral Fellow

Jasmine is a PhD student in Epidemiology at Emory University, where she also earned her BA in English and her MPH in Global Epidemiology. Prior to joining the doctoral program, she worked as an epidemiologist for the Georgia Department of Public Health. Her research focuses on the intersection of social epidemiology and immigrant health. As a METRIC trainee, she is interested in studying how immigrant experiences (migration, acculturation, racial discrimination, etc.) impact cardiometabolic outcomes through a stress pathway.

New METRIC T32 Fellows (July/September 2022)



Maggie Wang, MD, Postdoctoral Fellow

Maggie is a cardiology fellow in the Emory Division of Cardiology. Prior to coming to Emory, she studied integrative biology and nutritional sciences at the University of California Berkeley, earned her medical degree from the University of California Davis School of Medicine, and completed her internal medicine residency at Cedars-Sinai Medical Center. Her research interests are in heart failure and heart transplantation. As part of the METRIC program, Maggie will investigate the relationship between mental stress reactivity and heart failure outcomes, particularly amongst women and underserved populations.



Zachary Martin, PhD, Postdoctoral Fellow

Zachary has received extensive training in human cardiovascular physiology. After completing a B.S. in Exercise Science and an M.S. in Exercise Physiology, he went on to complete a Ph.D. on integrative cardiovascular physiology from The University of Texas at Arlington. His dissertation investigated elevated cardiovascular disease risk in Black women and the impact of psychosocial stress and novel preventive strategies. Zac joined the METRIC program to acquire more training in psychosocial determinants of health, to serve his long-term goal of leading studies that address critical knowledge gaps contributing to persistent population disparities in cardiovascular health and function.



Melissa Chapnick, Predoctoral Fellow

Melissa is a third-year PhD student in the Nutrition and Health Sciences Program. She is interested in the role of early life nutrition on adult chronic disease risk, and works with Dr. Aryeh Stein and investigators from the Institute of Nutrition of Central America and Panama. Prior to her doctoral training, Melissa was a research manager at Washington University in St. Louis where she supported several maternal and infant nutrition studies in Haiti, Ecuador, and Kenya. Ms. Chapnick is a Registered Dietitian and holds a Master of Science in Nutrition and Dietetics and a Master of Public Health from Saint Louis University.



Jorge Gonzalez Mejia, Predoctoral Fellow

Jorge is a second-year PhD student in Epidemiology. He earned a BA in Psychology and an MPH in Research in Practice at the University of Virginia. Prior to joining the doctoral program, he worked as a clinical research coordinator at the University of Virginia Center for Public Health Genomics. His research interests lie at the intersection of immigrant health, type 2 diabetes, and cardiometabolic outcomes across the lifespan. As a METRIC trainee, he will examine intergenerational psychosocial risk factors of immigrant populations and the role of potential mediators in reducing the risk of diabetes-related outcomes.



Rachel Parker, Predoctoral Fellow

Rachel is a fourth-year PhD student in Biostatistics. She obtained her BS in Applied Mathematics from the University of Central Arkansas and her MPH with a concentration in Biostatistics from Boston University. After completing her MPH, she worked as a Data Analyst for the U.S Department of Veterans Affairs as part of the Cardiology Consortium Research Team. Her research interests include the assessment of reproducibility and reliability of imaging biomarkers, latent class analysis, and latent growth modeling of longitudinal data. She will apply some of these methods to a study of ambulatory blood pressure in African American women.

Congratulations to METRIC Fellows who Have Begun New Positions or were Awarded New Grants



Kasra Moazzami, MD, former METRIC postdoc, was appointed *Assistant Professor at Emory University, Division of Cardiology* as of July 2022. Kasra was a METRIC postdoc in 2018-2020, successfully completed the MSCR program during that time and then completed his cardiology training in June 2022. He will continue his research on mechanisms of stress on cardiovascular and cognitive outcomes among patients with coronary disease, including brain influences on cardiometabolic risk.



An Young, MD, former METRIC postdoc, has begun a new job as a *cardiologist at Northside Hospital*. She will work in preventive cardiology with a focus on cardiovascular disease in women and pregnancy. She was a METRIC postdoc in 2018-2020, and then completed her cardiology training in June 2022.



Alexis Okoh, MD, METRIC postdoc, as of July, 2022, is the *inaugural fellow of the newly-funded American Heart Association Strategically Focused Research Network on the science of Diversity in Clinical Trials*. He joined the Emory cardiology fellowship program and the METRIC T32 in July 2021. Born and raised in Ghana, Alexis trained as a physician in Turkey and his main research interests include heart failure in Black patients, racial disparities in cardiovascular disease outcomes, and structural and congenital heart diseases.



Izraelle (Izzy) McKinnon, METRIC predoc, has graduated from the Epidemiology PhD program in May 2022 with a dissertation entitled “Residential and Activity Space Racial Composition and Cardiovascular Risk in Black Women.” She is now *a part of the Epidemic Intelligence Service (EIS) Class of 2022 at CDC, at the National Center for HIV, Viral Hepatitis, STD, and TB Prevention Division of Adolescent and School Health*.



Zerleen Quader, METRIC predoc, has graduated from the Epidemiology PhD program in May 2022 with a dissertation entitled “Examining the role of school characteristics in childhood body mass index, physical activity, and health promotion.” She is now *a part of the Epidemic Intelligence Service (EIS) Class of 2022 at CDC at the National Center for Injury Prevention and Control Division of Overdose Prevention*. During the METRIC program, she was awarded an AHA predoctoral fellowship and an NIH F31 predoctoral fellowship grant.



Phensee Dunlap, METRIC predoc, was awarded a *NIH R36 Dissertation Award* entitled “Evaluation of a mHealth Cardiac Rehabilitation Intervention in Older Veterans” which started in June 2022. She has entered candidacy for her dissertation proposal in April 2021, entitled “An Evaluation of Primary and Secondary CVD Prevention Strategies for Socially Vulnerable Populations Across Life Stages.”



Ye Ji Kim, METRIC predoc, was awarded an *NIH F31 predoctoral fellowship grant* entitled “Understanding health services utilization and health mechanism among U.S. immigrant children and adolescents”, which started in July 2022. She has entered candidacy for her dissertation proposal in May 2021, with the same title.

Recent Publications from Fellows and Alumni

- Jones RE**, Patil S, Datar A, Shaikh NI, Cunningham SA. [Food Choices in the Context of Globalizing Food Options among Adolescents in Rural Southern India.](#) *Ecol Food Nutr.* 2022 Jul-Aug;61(4):422-441. doi: 10.1080/03670244.2021.2020113. Epub 2022 Jan 19. PubMed PMID: 35044285; PubMed Central PMCID: PMC9294073.
- Crookes DM**, Stanhope KK, Suglia SF. [Immigrant-Related Policies and the Health Outcomes of Latinx Adults in the United States: A Systematic Review.](#) *Epidemiology.* 2022 Jul 1;33(4):593-605. doi: 10.1097/EDE.0000000000001480. Epub 2022 Apr 12. PubMed PMID: 35439769; PubMed Central PMCID: PMC9156534.
- Angley M**, Drews-Botsch C, Lewis TT, Badell M, Lim SS, Howards PP. [Adverse Perinatal Outcomes Before and After Diagnosis of Systemic Lupus Erythematosus Among African American Women.](#) *Arthritis Care Res (Hoboken).* 2022 Jun;74(6):904-911. doi: 10.1002/acr.24848. Epub 2022 Apr 5. PubMed PMID: 34931482; PubMed Central PMCID: PMC9133027.
- Kim YJ**, Levantsevych OM, Elon L, Lewis TT, Suglia SF, Bremner JD, Quyyumi AA, Pearce B, Raggi P, Vaccarino V, Shah AJ. [Early life stress and autonomic response to acute mental stress in individuals with coronary heart disease.](#) *J Trauma Stress.* 2022 Apr;35(2):521-532. doi: 10.1002/jts.22766. Epub 2022 Jan 15. PubMed PMID: 35032417; PubMed Central PMCID: PMC9109683.
- Spikes TA**, Isiadinso I, Mehta PK, Dunbar SB, Lundberg GP. [Socioeconomic characteristics of African American women attending community blood pressure screenings.](#) *Am Heart J Plus.* 2022 Jan;13. doi: 10.1016/j.ahjo.2022.100123. Epub 2022 Mar 23. PubMed PMID: 35441153; PubMed Central PMCID: PMC9014812.
- Garcia M**, Almuwaqqat Z, Moazzami K, Young A, Lima BB, Sullivan S, Kaseer B, Lewis TT, Hammadah M, Levantsevych O, Elon L, Bremner JD, Raggi P, Shah AJ, Quyyumi AA, Vaccarino V. [Racial Disparities in Adverse Cardiovascular Outcomes After a Myocardial Infarction in Young or Middle-Aged Patients.](#) *J Am Heart Assoc.* 2021 Sep 7;10(17):e020828. doi: 10.1161/JAHA.121.020828. Epub 2021 Aug 25. PubMed PMID: 34431313; PubMed Central PMCID: PMC8649258.
- Moazzami K**, Garcia M, Young A, Almuwaqqat Z, Lima BB, Martini A, Alkhalaf M, Shah AJ, Goldstein FC, Hajjar I, Levey AI, Bremner JD, Quyyumi AA, Vaccarino V. [Association between symptoms of psychological distress and cognitive functioning among adults with coronary artery disease.](#) *Stress Health.* 2021 Aug;37(3):538-546. doi: 10.1002/smi.3018. Epub 2020 Dec 26. PubMed PMID: 33319483; PubMed Central PMCID: PMC8395370.
- McKinnon II**, Shah AJ, Lima B, **Moazzami K**, **Young A**, **Sullivan S**, Almuwaqqat Z, **Garcia M**, Elon L, Bremner JD, Raggi P, Quyyumi AA, Vaccarino V, Lewis TT. [Everyday Discrimination and Mental Stress-Induced Myocardial Ischemia.](#) *Psychosom Med.* 2021 Jun 1;83(5):432-439. doi: 10.1097/PSY.0000000000000941. PubMed PMID: 34080584; PubMed Central PMCID: PMC8225242.
- Okoh A**, Morris AA. [Data in a Vacuum? The Desperate Need for a Paradigm Shift to Prevent Heart Failure in Black Americans.](#) *J Am Heart Assoc.* 2021 May 4;10(9):e021048. doi: 10.1161/JAHA.121.021048. Epub 2021 Apr 21. PubMed PMID: 33880933; PubMed Central PMCID: PMC8200755.
- Sullivan S**, **Young A**, Hammadah M, Lima BB, Levantsevych O, Ko YA, Pearce BD, Shah AJ, Kim JH, **Moazzami K**, Driggers EG, Haffar A, Ward L, Herring I, Hankus A, Lewis TT, Mehta PK, Bremner JD, Raggi P, Quyyumi A, Vaccarino V. [Sex differences in the inflammatory response to stress and risk of adverse cardiovascular outcomes among patients with coronary heart disease.](#) *Brain Behav Immun.* 2020 Nov;90:294-302. doi: 10.1016/j.bbi.2020.09.001. Epub 2020 Sep 8. PubMed PMID: 32916271; PubMed Central PMCID: PMC7872132.
- Moazzami K**, **Young A**, **Sullivan S**, Kim JH, **Garcia M**, Johnson DA, Lewis TT, Shah AJ, Bremner JD, Quyyumi AA, Vaccarino V. [Racial disparities in sleep disturbances among patients with and without coronary artery disease: The role of clinical and socioeconomic factors.](#) *Sleep Health.* 2020 Oct;6(5):570-577. doi: 10.1016/j.sleh.2020.07.004. Epub 2020 Aug 18. PubMed PMID: 32819889; PubMed Central PMCID: PMC7704917.

Please continue to submit your papers to PubMed Central and make sure **T32HL130025** is included as funding.
<https://www.nihms.nih.gov/db/sub.cgi>

Upcoming Program Events and Announcements

Upcoming METRIC Events

(more information will be provided closer to the event)

- **METRIC Seminars**

- 9/23/2022, Lobsang Tenzin Negi
- 11/18/2022, Manoj Bhasin
- 1/27/2023, Rebecca Hasson (University of Michigan)
- 3/17/2023, Doug Bremner
- 3/24/2023, Tanya Spruill (Columbia University)
- 4/21/2023, Alvaro Alonso

- **METRIC Research in Progress Series (2nd Wednesday of the month, 12pm)**

- 9/14/2022, Orientation
- 10/12/2022:
 - Zac Martin: Blunted Vascular Endothelial Function in Black Females: Examining the Impact of Psychosocial Stress Exposure Versus Internalization and Coping
 - Maggie Wang: Heart Rate Variability During Mental Stress Predicts Heart Failure Events in Patients with Coronary Artery Disease
- 11/9/2022, Speaker and Topic TBD
- 12/14/2022, Speaker and Topic TBD

All current METRIC trainees are required to sign up: [METRIC Research In Progress Roundtable Sign-Up Sheet.gsheet.xlsx \(sharepoint.com\)](#)

- **METRIC Career Development Conversation Series (3rd Wednesday of the month, 12pm)**

- 10/19/2022, Brainstorming Session for Future Topics
- 11/16/2022, Speaker and Topic TBD
- 12/21/2022, Speaker and Topic TBD

Please provide suggestions for career development topics here: [METRIC Career Development Series \(sharepoint.com\)](#)

- **METRIC and ECCRI Journal Club (1st Friday of the month, 10am)**

- 10/7/2022, Zac Martin, Topic TBD
- 11/4/2022, Jasmine Aqua and Nicole Fields, Topic TBD
- 12/2/2022, Melissa Chapnick, Topic TBD
- 1/6/2023, Rachel Parker, Topic TBD
- 2/3/2023, Rebecca Jones-Antwi and Jeffrey Wang, Topic TBD
- 3/3/2023, Jorge Gonzalez, Topic TBD
- 4/7/2023, Hiroki Ueyama, Topic TBD
- 5/5/2023, Katie Campbell, Topic TBD
- 6/2/2023, Maggie Wang, Topic TBD

All current METRIC trainees are required to sign up: [ECCRI-METRIC Journal Club Sign-up Sheet \(sharepoint.com\)](#)

Please send any news and updates for next newsletter to Lucy Shallenberger (Ishalle@emory.edu)