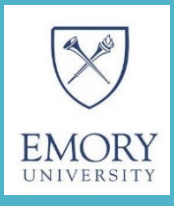




METRIC T32 News and Updates

Multidisciplinary Research Training to Reduce Inequalities in Cardiovascular Health

May 2021



This past year has not been easy. Trapped in our homes, we have developed social disruption and isolation, Zoom fatigue, and increasing imbalance between work and family demands. At times it has been difficult to keep focus and maintain our spirits up. Social connections and learning opportunities through a computer screen have often not matched up with those we were used to, by direct interactions through live seminars and conferences. Despite these difficulties, our fellows and faculty have accrued remarkable achievements. Despite pandemic-related difficulties, this has been an incredibly successful year for our program. The resilience of us all should be celebrated as we get ready for a new academic year—and look forward to a way of living that will bring all of us together again, and to updating the picture below!



METRIC T32—Cycle 2

Our METRIC T32 has been funded for a second cycle, years 6 through 10, beginning July 1, 2021. The new funding will allow us to grow the program to 5 slots for PhD students and 5 slots for postdoctoral fellows each year. The administrative structure of the program has undergone some restructuring as outlined below.

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-Pulmonary), Carmen Marsit (RSPH-EHS), 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 will serve as primary mentors.

An updated list of all core faculty, their affiliations and research interests will be distributed to our fellows.

Welcoming Upcoming METRIC T32 Fellows (July/September 2021)

Postdoctoral Fellows. A whole new group will join this upcoming year!



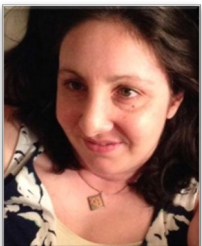
Alexis Okoh, MD

Born and raised in Ghana, Alexis trained as a physician in Turkey and will join the Emory cardiology fellowship program and the METRIC T32 on July 1st. His main research interests include heart failure in Black patients, racial disparities in cardiovascular disease outcomes, and structural and congenital heart diseases. His long-term goals are investigating the link between structural social inequities and other factors that place individual patients at greater risk for cardiovascular diseases.



Shivang Desai, MD

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.



Alison Cammack, PhD

Allison received her MPH and PhD from the Department of Epidemiology at RSPH. She is interested in the intra and inter-generational impact of early life adversity and in strategies to mitigate cardiometabolic risk. A major goal for her upcoming year in METRIC is to revise and resubmit a K99/R00 proposal to study trauma informed approaches to improving diet and reducing obesity risk in Latino/a children whose mothers experienced early life adversity. She will also continue her work on the Boricua Youth Study with Dr. Suglia and hopes to gain more exposure to intervention research.



Rebecca Jones, PhD

Rebecca received an MPH and a PhD in Nutrition and Health Sciences from RSPH. Her dissertation examined dietary change among foreign-born adults 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

Nicole is in the final stages of her dissertation research as a doctoral candidate in 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.

Predocctoral Fellows. We will welcome a new PhD student in the METRIC program: Katie Campbell. Three PhD students will continue from last year (Izzy McKinnon, Ye Ji Kim, and Phenesse Dunlap).



Katie Campbell

Katie is a rising third-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 aims to examine 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.

Congratulations and Best Wishes to METRIC Fellows and Alumni who Have Accepted New Faculty Positions

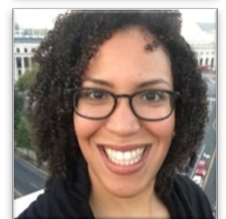
Naser Titu, PhD, current METRIC postdoc (2020-2021), has accepted a tenure track Assistant Professor position in the Division of Epidemiology, Biostatistics, and Environmental Health, School of Public Health, University of Memphis, beginning September 1, 2021. He will continue work on the cardiometabolic health benefits of mineral contents in drinking water, and is working on a K23 application to examine this question in a rural longitudinal cohort study in the Appalachian-Mississippi Delta Region (the NHLBI-funded RURAL study).



Telisa Spikes, PhD, current METRIC postdoc (2019-2021), has accepted a tenure track Assistant Professor position in the Emory Nell Hodgson Woodruff School of Nursing, beginning July 1st, 2021. She will continue her work on stress and cardiovascular risk in young and early middle age African-American women with a focus on the development of culturally-tailored interventions to mitigate the adverse effects of stress on the cardiovascular system in this high-risk group of women.



Danielle Crookes, PhD, current METRIC postdoc (2019-2021), will be starting as a tenure-track Assistant Professor of Health Sciences in the Bouvé College of Health Sciences with a joint appointment in the Department of Anthropology and Sociology in the College of Social Sciences and Humanities at Northeastern University in Boston, MA. This past fall, she was also awarded funding through the NIH Loan Repayment Program from NHLBI for her project entitled “Sociopolitical stressors and the cardiovascular risk factors of Latinos in the US”. Her mentor is Shakira Suglia.

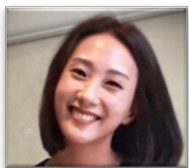


Samaah Sullivan, PhD, previous METRIC postdoc (2016-2018), has accepted a position as a tenure-track Assistant Professor in the Department of Epidemiology, Human Genetics, and Environmental Sciences at the School of Public Health of the University of Texas Health Sciences Center at Houston (UTHealth), in the Dallas Campus, with start date August 2021. Dr. Sullivan is a recipient of a NIH K01 award, and will continue her research on cardiovascular disease in women and sex/gender differences with her mentor, Dr. Vaccarino, and her other collaborators at Emory, while also beginning new collaborations at UTHealth.



Congratulations to our Current METRIC Predocs for Recent Milestones and Funding for Dissertation Research

Zerleen Quader, current METRIC predoc, was awarded an AHA predoctoral fellowship, and her NIH F31 application received a fundable score (7th percentile). They were both titled “Examining the role of school characteristics in childhood obesity, physical activity, and health promotion.” Because of her new funding, this will be Zerleen’s last year on the METRIC program.



Ye Ji Kim, current METRIC predoc, has entered candidacy for her dissertation proposal entitled “Understanding health services utilization and health mechanism among U.S. immigrant children and adolescents” and is now in Candidacy as of May 3rd. She also resubmitted her dissertation project in April for an F31-Diversity grant. Her dissertation committee includes Shakira Suglia (Chair), Michael Kramer, M. Doug Livingston, and E. Kathleen Adams.

Phenese Dunlap, current METRIC predoc, successfully defended her dissertation proposal in April 2021, entitled “An Evaluation of Primary and Secondary CVD Prevention Strategies for Socially Vulnerable Populations Across Life Stages” and submitted a NIA Dissertation Award in February 2021. Her dissertation committee includes Kelli Komro (Chair), Amit Shah, Regine Haardoerfer, and Melvin Livingston.



Izraelle (Izzy) McKinnon, current METRIC predoc, is making strides on her dissertation work, entitled “Residential and Activity Space Racial Composition and Cardiovascular Risk in Black Women.” Izzy also got a new first-author paper accepted in the journal Psychosomatic Medicine, entitled “Everyday Discrimination and Mental Stress-Induced Myocardial Ischemia.”

Congratulations to METRIC Postdocs who Successfully Completed the Master of Science in Clinical Research (MSCR) Program



Kasra Moazzami, MD (METRIC postdoc, 2018-2020) successfully completed the MSCR program this Spring. Currently, Kasra is continuing his cardiology fellowship clinical training at Emory. In February he submitted a K23 application, entitled “Acute Mental Stress and Cognitive Decline in Coronary Artery Disease.”



Mariana Garcia, MD (METRIC postdoc, 2019-2021) successfully completed the MSCR program this Spring. Mariana is completing her second year on the METRIC T32 and on July 1st she will continue her cardiology fellowship clinical training at Emory. Mariana has another achievement to share: She will give birth to her second child soon!

Recent Publications from Fellows and Alumni (Since Last Newsletter, Nov 2021)

Young A, Garcia M, Sullivan SM, Liu C, Moazzami K, Ko YA, Shah AJ, Kim JH, Pearce B, Uphoff I, Bremner JD, Raggi P, Quyyumi A, Vaccarino V. [Impaired Peripheral Microvascular Function and Risk of Major Adverse Cardiovascular Events in Patients With Coronary Artery Disease.](#) *Arterioscler Thromb Vasc Biol.* 2021 May 5;41(5):1801-1809. doi: 10.1161/ATVBAHA.121.316083. Epub 2021 Mar 18. PubMed PMID: 33730873; PubMed Central PMCID: PMC8062308.

Moazzami K, Wittbrodt MT, Lima BB, Kim JH, Almuwaqqat Z, Shah AJ, Hajjar I, Goldstein FC, Levey AI, Nye JA, Bremner JD, Vaccarino V, Quyyumi AA. [Neurobiological Pathways Linking Acute Mental Stress to Impairments in Executive Function in Individuals with Coronary Artery Disease.](#) *J Alzheimers Dis Rep.* 2021 Feb 2;5(1):99-109. doi: 10.3233/ADR-200287. PubMed PMID: 33782663; PubMed Central PMCID: PMC7990469.

Naser AM, He FJ, Rahman M, Campbell NRC. [Spot Urine Formulas to Estimate 24-Hour Urinary Sodium Excretion Alter the Dietary Sodium and Blood Pressure Relationship.](#) *Hypertension.* 2021 Apr 5;:HYPERTENSIONAHA12016651. doi: 10.1161/HYPERTENSIONAHA.120.16651. [Epub ahead of print] PubMed PMID: 33813848.

Crookes DM, Stanhope KK, Kim YJ, Lummus E, Suglia SF. [Federal, State, and Local Immigrant-Related Policies and Child Health Outcomes: a Systematic Review.](#) *J Racial Ethn Health Disparities.* 2021 Feb 8;. doi: 10.1007/s40615-021-00978-w. [Epub ahead of print] Review. PubMed PMID: 33559110; PubMed Central PMCID: PMC7870024.

Moazzami K, Sullivan S, Lima BB, Kim JH, Hammadah M, Almuwaqqat Z, Shah AJ, Hajjar I, Goldstein FC, Levey AI, Bremner JD, Quyyumi AA, Vaccarino V. [Mental stress-induced myocardial ischemia and cognitive impairment in coronary atherosclerosis.](#) *J Psychosom Res.* 2021 Feb;141:110342. doi: 10.1016/j.jpsychores.2020.110342. Epub 2020 Dec 25. PubMed PMID: 33360843; PubMed Central PMCID: PMC7857648.

Islam SJ, Kim JH, Baltrus P, **Topel ML, Liu C, Ko YA, Mujahid MS, Vaccarino V, Sims M, Mubasher M, Khan A, Ejaz K, Searles C, Dunbar S, Pemu P, Taylor HA, Quyyumi AA, Lewis TT.** [Neighborhood characteristics and ideal cardiovascular health among Black adults: results from the Morehouse-Emory Cardiovascular \(MECA\) Center for Health Equity.](#) *Ann Epidemiol.* 2020 Dec 5;. doi: 10.1016/j.annepidem.2020.11.009. [Epub ahead of print] PubMed PMID: 33285258; NIHMSID:NIHMS1689345.

Kim JH, Islam SJ, **Topel ML, Ko YA, Mujahid MS, Vaccarino V, Liu C, Sims M, Mubasher M, Searles CD, Dunbar SB, Pemu P, Taylor HA, Quyyumi AA, Baltrus P, Lewis TT.** [Individual Psychosocial Resilience, Neighborhood Context, and Cardiovascular Health in Black Adults: A Multilevel Investigation From the Morehouse-Emory Cardiovascular Center for Health Equity Study.](#) *Circ Cardiovasc Qual Outcomes.* 2020 Oct;13(10):e006638. doi: 10.1161/CIRCOUTCOMES.120.006638. Epub 2020 Oct 7. PubMed PMID: 33023334; PubMed Central PMCID: PMC8059442.

Raskind IG, Patil SS, Tandon N, Thummalapally S, Kramer MR, Cunningham SA. [Household Chores or Play Outdoors? The Intersecting Influence of Gender and School Type on Physical Activity Among Indian Adolescents.](#) Health Educ Behav. 2020 Oct;47(5):682-691. doi: 10.1177/1090198120931040. Epub 2020 Jun 9. PubMed PMID: 32517521; PubMed Central PMCID: PMC7774806.

Wittbrodt MT, **Moazzami K**, Shah AJ, Lima BB, Hammadah M, Mehta PK, Quyyumi AA, Vaccarino V, Nye JA, Bremner JD. [Neural responses during acute mental stress are associated with angina pectoris.](#) J Psychosom Res. 2020 Jul;134:110110. doi: 10.1016/j.jpsychores.2020.110110. Epub 2020 Apr 11. PubMed PMID: 32345456; PubMed Central PMCID: PMC8082434.

Almuwaqqat Z, Wittbrodt M, **Young A**, Lima BB, Hammadah M, **Garcia M**, Elon L, Pearce B, Hu Y, **Sullivan S**, Mehta PK, Driggers E, Kim YJ, Lewis TT, Suglia SF, Shah AJ, Bremner JD, Quyyumi AA, Vaccarino V. [Association of Early-Life Trauma and Risk of Adverse Cardiovascular Outcomes in Young and Middle-aged Individuals With a History of Myocardial Infarction.](#) JAMA Cardiol. 2020 Nov 13;. doi: 10.1001/jamacardio.2020.5749. [Epub ahead of print] PubMed PMID: 33185652; PubMed Central PMCID: PMC7666433.

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>

Other Program Updates and Announcements

Upcoming METRIC Events

- 5/21/2021, METRIC Seminar, Shakira Suglia
- 5/28/2021, METRIC Seminar, K.M. Venkat Narayan
- 6/9/2021, METRIC Research in Progress, Zerleen Quader and Ye Ji Kim
- 6/18/2021, METRIC Seminar, Laurence Sperling
- 9/1/2021, METRIC Orientation
- 9/8/2021, METRIC Research in Progress, Phenesse Dunlap
- 9/15/2021, METRIC Career Development Conversation Series, TBD

• METRIC Seminars

- 5/21/2021, Shakira Suglia
- 5/28/2021, K.M. Venkat Narayan
- 6/18/2021, Laurence Sperling

• METRIC Research in Progress Series

- 6/9/2021, Zerleen Quader and Ye Ji Kim
- 9/8/2021, Phenesse Dunlap

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

• METRIC Career Development Conversation Series

- 9/15/2021, TBD

Please provide suggestions for career development topics here: https://docs.google.com/spreadsheets/d/1Qu_-RFc60I4WZDEF66W6ULMeoO6uh3H4mpx_w03buE/edit?usp=sharing

Please send any news and updates for next newsletter to Lucy Shallenberger (Ishalle@emory.edu) by November 1, 2021.