

The Interplay between Environmental Exposures and Mental Health Outcomes - A Workshop

Committee

Gina M. Solomon

Chair

Gina M. Solomon researches science and policy issues related to toxic chemicals and environmental health. Her current work focuses on drinking water contaminants in areas affected by wildfires, and water quality in socioeconomically disadvantaged communities and those with high rates of breast cancer. She also works to protect public health from toxic chemicals in consumer products and pesticides. Dr. Solomon leads the Achieving Resilient Communities (ARC) project, engaging and empowering California communities to strengthen health despite a changing climate. Dr. Solomon is also a Clinical Professor of Medicine at the University of California San Francisco (UCSF). She served as the Deputy Secretary for Science and Health at the California Environmental Protection Agency (CalEPA) from 2012-2018, and as a senior scientist at the Natural Resources Defense Council from 1996-2012. She was the director of the occupational and environmental medicine residency program at UCSF, and the co-director of the UCSF Pediatric Environmental Health Specialty Unit. She has served on multiple boards and committees of the National Academies, U.S. Environmental Protection Agency, and other federal and state agencies. Dr. Solomon received her bachelor's degree from Brown University, her M.D. from Yale University, and did her M.P.H. and her residency and fellowship training in internal medicine and occupational and environmental medicine at Harvard University.

Margarita Alegria

Member

Margarita Alegria is the Chief of the Disparities Research Unit at the Massachusetts General Hospital (MGH) and The Mongan Institute, the Harry G. Lehnert, Jr. and Lucille F. Cyr Lehnert Endowed MGH Research Institute Chair and a Professor in the Departments of Medicine and Psychiatry at Harvard Medical School. Dr. Alegria is currently the principal investigator of four National Institutes of Health (NIH)-funded research studies: The Impact of Medicaid Plans on Access to and Quality of Substance Use Disorder (SUD) Treatment; Building Infrastructure for Community Capacity in Accelerating Integrated Care; Building Community Capacity for Disability Prevention for Minority Elders; and Latino Youth Coping with

Discrimination: A Multi-Level Investigation in Micro- and Macro-Time. Dr. Alegria has published 300 peer-reviewed papers, and several book chapters, on topics such as improvement of health care services delivery for diverse racial and ethnic populations, conceptual and methodological issues with multicultural populations and ways to bring the community's perspective into the design and implementation of health services. In acknowledgement of her contributions to her field, Dr. Alegria has been widely recognized and cited. Her research has been recognized by the Simon Bolivar Award by the American Psychiatry Association, the Carl Taube Award by the American Public Health Association and the Health Disparities Innovation Award from the National Institute of Minority Health and Health Disparities. In October 2011, she was elected as a member of the National Academy of Medicine. Most recently, Dr. Alegria received the Rema Lapouse Award for Achievement in Epidemiology, Mental Health and Applied Statistics by the American Public Health Association (2020). She was awarded a Ph.D. in Psychology from Temple University, a M.A. in Psychology from University of Puerto Rico, and a B.A. in Psychology from Georgetown University.

Laura Y. Cabrera

Member

Laura Y. Cabrera is Assistant Professor of Neuroethics at the Center for Ethics and Humanities in the Life Sciences at Michigan State University. She is also Faculty Affiliate at Neuroethics Canada, University of British Columbia. She received a BSc in Electrical and Communication Engineering from the Instituto Tecnológico de Estudios Superiores de Monterrey (ITESM) in Mexico City, an MA in Applied Ethics from Linköping University in Sweden, and a PhD in Applied Ethics from Charles Sturt University in Australia. Dr. Cabrera's interests focus on the ethical and societal implications of neurotechnologies used for treatment as well as for enhancement purposes. She has been working on projects at the interface of normative, conceptual and empirical approaches, exploring attitudes and ethical concerns of professionals, patients and members of the public toward brain interventions. Her work has also focused on the ethical and social implications of environmental changes for brain and mental health. Her current work focuses on the responsible use of psychiatric electroceutical interventions, and the timing of deep brain stimulation for Parkinson's Disease. Dr. Cabrera is an honorific member of the Mexican Neuroethics Society, chair of the International Neuroethics Society (INS) Emergent Issues Task Force, member of the Board of Directors of the (INS), and member of the IEEE Brain Neuroethics Subcommittee.

Emily Freeman

Member

Emily Freeman is a health geographer by training and has worked closely on the impact of environment and health as a contributing factor to psychological growth. She has studied the geography of everyday life in relation to: (a) social determinants of health and the built environment, (b) the importance of physical place in everyday life on health, (c) the relationships between everyday life and socio-structural constraints of the built environment (i.e., proximity to environmental hazards, impact of natural disasters), and (d) risk perceptions of the physical environment on well-being. Currently, Dr. Freeman is working on the integration of the lived experience of patients into drug development and the development of outcome measures that reflect the lived experience on behavioral health and mental health outcomes. She received her Ph.D. degree in Health Geography from McMaster University with postdoctoral training in Palliative Care and Psychosocial Oncology from the University of Toronto Faculty of Psychiatry.

Erika M. Manczak

Member

Erika M. Manczak is an Assistant Professor at the University of Denver in the Department of Psychology, having completed her Ph.D. at Northwestern University, clinical internship at the University of Illinois-Chicago, and postdoctoral fellowship at Stanford University. Her program of research seeks to identify novel biological and environmental contributors to the development of depressive symptoms in youth and their parents, with particular emphasis on transactions between the immune system and psychological processes. She has authored more than 30 articles, which have been published in leading psychology journals such as Psychological Science and Journal of the American Academy of Child and Adolescent Psychiatry. In recent years, she has become particularly interested in the role of environmental pollution on youth mental health, with work identifying water contaminants, ambient ozone, and particulate matter (PM2.5) exposures as predictors of adolescent mental health symptoms. She is currently involved in several projects investigating these exposures across the lifespan including during the prenatal period, adolescence, and adulthood.

Gary Miller

Member

Gary Miller is Professor of Environmental Health Sciences and Vice Dean for Research Strategy and Innovation at Columbia University. He completed his doctoral training in Pharmacology and Toxicology and postdoctoral training in Molecular Neuroscience. His research has focused on environmental factors involved in the development of neurodegenerative conditions, such as Parkinson's disease. His laboratory works at the interface of neuroscience and toxicology, using a wide variety of experimental techniques. Dr. Miller previously served as Director of the Emory HERCULES center, an NIEHS-funded center focused on the exposome, the environmental analogue to the genome. He also served as Director of Emory's NIEHS-funded T32 Training Grant in Environmental Health Sciences and Toxicology. Dr. Miller received the Achievement Award from Society of Toxicology and previously was Editor-in-Chief of Toxicological Sciences, the official journal of Society of Toxicology.

Aaron Reuben

Member

Aaron Reuben is a clinical psychology scientist-practitioner in-training and independent science writer. His research focuses on the link between environmental health and human psychology, cognitive health, and aging. Mr. Reuben writes about nature, neuroscience, and public health. It aims to fuse the fields of clinical neuropsychology, mental health and degenerative disease epidemiology, and environmental quality and natural resource conservation. He completed Masters in Environmental Management from the Yale School of Forestry & Environmental Studies and a Bachelors in Neuroscience & Behavior and English Literature from Wesleyan University. Currently, he is a Doctoral degree student in Duke University's Department of Psychology & Neuroscience and a former study coordinator for Columbia University's Taub Institute for Research on Alzheimer's Disease and the Aging Brain. Before joining Duke University, Mr. Reuben worked at the intersection of environmental stewardship and public health as an environmental policy researcher at the Yale Center for Environmental Law & Policy, an environmental policy intern at the White House Council on Environmental Quality, and a science communicator and advocate at the International Union for the Conservation of Nature. He has contributed new reporting to Mother Jones, VICE, Outside, Wired, Scientific American and the Atlantic, among others. Previously, he has also worked as a study coordinator, researcher, analyst, and communications officer for a variety of institutions, at universities, international NGOs, and governmental agencies.

Patrick H. Ryan

Member

Patrick Ryan is Professor of Pediatrics and Environmental Health at Cincinnati Children's Hospital Medical Center and the University of Cincinnati, College of Medicine. He obtained a B.S. in Mathematics from Xavier University and M.S. and Ph.D. degrees in Epidemiology from the University of Cincinnati, Department of Environmental Health. In 2013, he joined the faculty of Cincinnati Children's Hospital Medical Center and currently serves as the Associate Director for Research in the Division of Biostatistics and Epidemiology, Co-Director of the Graduate Program in Clinical and Translational Research, and Director of the Translational Workforce Development Core for the Center for Clinical and Translational Science and Training. Dr. Ryan's research program focuses on the role of indoor and outdoor environmental toxicants on pediatric health, with specific focus on the impact of air pollutants on respiratory health, neurobehavioral development, and adolescent mental health. In addition, his research includes the use of personal air monitors and health sensors in epidemiologic studies and the impact of naturally occurring elongated mineral fibers on pulmonary disease in the western United States.