Integrating the Science of Aging and Environmental Health Research: A Workshop

Committee

Murat Acar

Member

Murat Acar is a Systems Biologist who combines experimental and computational approaches in his research using yeast as a model organism. He was trained as a physicist (Ph.D., Physics, M.I.T., 2007; B.S., Physics, Bogazici University, 2000). Prof. Acar is an Associate Professor at the Departments of Molecular Cellular & Developmental Biology and of Physics at Yale, and he is a member of the Yale Systems Biology Institute. Prof. Acar started his faculty position at Yale as an Assistant Professor in January 2012 after a postdoctoral position at CalTech. His Ph.D. and postdoctoral studies focused on understanding structure-function relationships in gene networks while his current research efforts are focusing on understanding aging and lifespan determinants at the single-cell level. Among the awards and honors Prof. Acar has received are a 2014 New Innovator Award by the NIH and a 2013 New Scholar in Aging Award by the Ellison Medical Foundation.

Jiu-Chiuan Chen

Member

Jiu-Chiuan (JC) Chen, MD, MPH, ScD. is an Associate Professor of Preventive Medicine and Neurology at the Keck School of Medicine of USC. A physician-epidemiologist with formal training in internal medicine, environmental and occupational medicine, environmental health sciences, and epidemiology (clinical, environmental, and occupational), Dr. Chen is interested in examining whether and how environmental stressors in workplaces and communities affect development and progression of chronic diseases as well as the quality of life as people age. Over the last few years, his primary research effort has focused on studying environmental contributions to neurodevelopment and brain aging across the life span. To better understand the impact of air pollution on dementia, Dr. Chen's research team and their collaborators take the team-sciences approach that integrates state-of-the-art knowledge and tools in neurobiology of Alzheimer's disease, population & clinical neuroimaging, neuroinformatics and highdimensional data analyses, brain vascular biology, inhalation exposure assessment and neurotoxicology.

Katherine A. James

Member

Katherine A. James received her B.S. degree in biological systems engineering from Virginia Polytechnic Institute & State University, and her Ph.D. degree in epidemiology from the University of Colorado. Dr. James is an epidemiologist and engineer who specializes in environmental and climate risk factors and health in vulnerable populations. Dr. James, is an Associate Professor in the Department of Environmental and Occupational Health in the Colorado School of Public Health. Her research investigates the association between environmental exposure to naturally occurring metals and agrochemicals and related adverse outcomes in a US rural population (San Luis Valley, Colorado). Her study cohorts are vulnerable populations including children, occupational cohorts, and the aging population. Recently, her work has expanded to include the interaction between changing climate and the environmental exposure through dust and water. Dr. James is also the PI for The Attitudes and Behaviors Study a repeated population-based survey of tobacco and marijuana use and other public health issues

Kristen Malecki

Member

Kristen Malecki is an Associate Professor in the Department of Population Health Sciences. She has a PhD in Environmental Epidemiology and Health Policy and Masters of Public Health from Johns Hopkins University Bloomberg School of Public Health. Dr. Malecki serves as the Director for the Survey of the Health of Wisconsin (SHOW), overseeing survey implementation efforts and ancillary study development. Her current research aims to identify biological mechanisms underlying persistent health disparities and examines combined chemical (air pollution, water pollution), physical and social stressors, and their influence on adult chronic disease and childhood development. She is a member of the University of Wisconsin National Institute for Environmental Health Breast Cancer and the Environment Research Program (coordinating center). Her transdisciplinary work includes the identification of biomarkers of expression and response using epigenetics, transcriptomics and examines the role of the gut microbiome in environmental health. She also serves as the Principal Investigator and directs research funded by the National Institute of Aging that examines the impact of individual and neighborhood level disadvantage across the life course on epigenetic markers of accelerated biological aging.

Donna Mendrick

Member

Donna L. Mendrick is the Director of the Division of Systems Toxicology at the National Center for Toxicology Research (NCTR), a research arm of the FDA. This division incorporates toxicogenomics, proteomics, metabolomics, bioinformatics and spectral modeling groups to answer the needs of the FDA in terms of drug and food safety and improving the understanding of human disease. Prior to joining the FDA, she was a Scientific Fellow and Vice President of Pharmacogenomics at Gene Logic where she oversaw pharmacogenomics and spearheaded its toxicogenomics effort. For the latter, she formed a pharmaceutical consortium to help guide the development of the program. Dr. Mendrick has over 25 years of experience in the fields (in alphabetical order) of immunology, pathology, pharmacogenomics, pharmacology, toxicology and toxicogenomics employing small molecule drugs, recombinant therapeutic proteins and monoclonal antibodies. She was an Assistant Professor of Pathology at Harvard Medical School and Brigham and Women’s Hospital prior to joining Human Genome Sciences in 1995.

Gary Miller

Member

Gary Miller, Ph.D., is a 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

Mary Ann Ottinger

Member

Mary Ann Ottinger is a professor of biology at the University of Houston. Previously, she served as Associate Vice Chancellor for Research for the University of Houston System and Associate Vice President for Research at the University of Houston. Before her move to Houston, Ottinger was a tenured Professor at the University of Maryland Department of Animal and Avian Sciences where she is now Emeritus Professor, and served as Associate Vice President of Research and Interim Associate Dean of the Graduate School. Ottinger has also held ositions in the U.S. Department of Agriculture and the National Science Foundation. Dr. Ottinger's research incorporates interdisciplinary and comparative biology approaches to understand the impacts of environmental chemicals, specifically endocrine disruptors (EDCs) on neural systems, behavior and aging. Her studies have utilized a spectrum of species, ranging from birds to non-human primates, providing expertise in translational studies across model systems. Ottinger utilizes an interdisciplinary approach and builds teams to address complex research problems facing us at regional, national and global scales, with a focus on aging and a One Health perspective, specifically considering the interrelationship of human-wildlife-ecosystem components. She received her Ph.D. in Zoology, from the University of Maryland, College Park.