

SYNTHETIC TURF SCIENTIFIC ADVISORY PANEL

The Synthetic Turf Scientific Advisory Panel (the Panel) is a group of expert scientists invited by the Office of Environmental Health Hazard Assessment (OEHHA) to provide advice on the design and implementation of OEHHA's synthetic turf study. The study aims to characterize the exposures and health risks from playing on synthetic turf and playground mats made from recycled tire materials. Members of the Panel were selected for their expertise in the following areas of specialization: exposure science, laboratory science and analytical chemistry, environmental monitoring, biostatistics, medicine, public health, and children's health.

The Panel will meet during the study to advise OEHHA on study plans, study progress, and reporting study results. All Panel meetings are open to the public.

At each Panel meeting, there will be:

1. Opportunities for panel members to provide scientific advice and guidance on the study design and implementation.
2. Opportunities to hear from the public on study design and progress.

OEHHA intends to webcast all Panel meetings, but this is contingent on webcast facility availability.

Synthetic Turf Scientific Advisory Panel Members

- **Edward Avol** is a Professor of Clinical Preventive Medicine, Keck School of Medicine, University of Southern California, and has expertise in exposure assessment and acute/chronic respiratory and cardiovascular effects of airborne pollutants in populations at risk including children, athletes, and subjects with compromised lung function. He was the Deputy Director of the Children's Health Study and is a key investigator in multiple ongoing investigations of the effects of environmental exposures on human health. He is the co-Director of the Exposure Assessment and Geographical Information Sciences Facility Core in the National Institute for Environmental Health Sciences (NIEHS)-supported Southern California Environmental Health Sciences Center, co-Director of the Exposure Assessment and Modeling Core in the NIEHS/US Environmental Protection Agency-supported Children's Environmental Health Center, and is the principal investigator on several National Institutes of Health and regionally funded studies to assess the association of air pollution with children's

respiratory and cardiovascular health. Professor Avol is also actively involved in the centers' community outreach efforts, particularly with regard to the health and air quality impacts of the Los Angeles/Long Beach Port expansions. Professor Avol received his M.S. from the California Institute of Technology.

- **John Balmes** is a Professor of Medicine at the University of California, San Francisco and the Chief of the Division of Occupational and Environmental Medicine at the San Francisco General Hospital and the Director of the Human Exposure Laboratory. He is also a Professor of Environmental Health Science at the University of California, Berkeley and the Director of the Northern California Center for Occupational and Environmental Health and the Center for Environmental Public Health Tracking. His research focuses on the adverse respiratory and cardiovascular effects of air pollutants including ozone, tobacco smoke and particulate matter. He received his M.D. from the Mount Sinai School of Medicine and completed a residency in Internal Medicine at Mount Sinai Hospital and a fellowship in Pulmonary Medicine at Yale University.
- **Deborah Bennett** is an Associate Professor in the Department of Public Health Sciences at the University of California, Davis. Her research is focused on the fate, transport, and exposure of chemicals. She uses field and modeling studies to assess and predict exposure to particulate matter and organic compounds in indoor and outdoor environments. Dr. Bennett received her B.S. in Mechanical Engineering from the University of California, Los Angeles and her M.S. and Ph.D. in Mechanical Engineering from the University of California, Berkeley.
- **Sandy Eckel** is an Assistant Professor in the Division of Biostatistics, at the Keck School Medicine, University of Southern California. Her research is on statistical methods and applications in environmental epidemiology, exhaled breath biomarkers, and clinical trials for pediatric brain tumors. She completed her Ph.D. in the Department of Biostatistics at the Johns Hopkins Bloomberg School of Public Health.
- **Amy Kyle** is on the faculty in Environmental Health Sciences at the School of Public Health at the University of California, Berkeley. Her recent research focuses on cumulative impacts, chemicals policies, persistent and bioaccumulative chemicals, children's environmental health, biomonitoring, and air pollution standards. Dr. Kyle serves as a leader of the Research Translation Core of the Berkeley Superfund Research Program funded by the National Institute for Environmental Health Sciences. She previously served as an Associate Director of the Berkeley Institute for the Environment. She has served

in senior positions in environmental protection in the State of Alaska working on a wide range of environmental, health, and natural resources issues. She has served on a variety of advisory groups focused on children's health and environmental disparity, including for the US Environmental Protection Agency, World Health Organization, Centers for Disease Control and Prevention, and National Academy of Sciences. Her M.P.H. and Ph.D. in environmental health sciences and policy are from the University of California, Berkeley and B.A. in environmental sciences is from Harvard College.

- **Thomas McKone** is an international expert on exposure science and risk analysis. He retired from the position of senior staff scientist and Division Deputy for Research at Lawrence Berkeley National Laboratory and as a Professor of Environmental Health Sciences at the University of California, Berkeley, School of Public Health, but continues to work at both institutions. Dr. McKone's research interests are in the development, use, and evaluation of models and data for human-health and ecological risk assessments and in the health and environmental impacts of energy, industrial, and agricultural systems. He has authored 160 journal papers, has served on the US Environmental Protection Agency Science Advisory Board, worked with several World Health Organization committees, served on many California state advisory panels, and been a member fifteen US National Academy of Sciences committees. He is a fellow of the Society for Risk Analysis and a former president of the International Society of Exposure Science. Dr. McKone earned a Ph.D. in engineering from the University of California, Los Angeles.

- **Linda Sheldon** is an international expert in exposure assessment. She retired from the position of Associate Director for Human Health in the US Environmental Protection Agency's National Exposure Research Laboratory. Her research focuses on measuring and modeling how chemicals move through the environment and how people, particularly children, come in contact with these chemicals in their everyday lives, as well as the associated health hazards. She has served on advisory committees for international and national research centers and on workgroups for the World Health Organization in the area of exposure assessment. She earned her Ph.D. in environmental chemistry from the University of Michigan.