Speakers' and Panelists' Biographies

Lena Ciric

Lena Ciric is Associate Professor in Environmental Engineering at the UCL Department of Civil, Environmental and Geomatic Engineering where she took up a permanent position in 2012. She is a molecular microbial ecologist and leads the Healthy Infrastructure Research Group which investigates how microbes are distributed around the built environment and how these can be manipulated with engineering solutions.

Kit Conway

Kit Conway is a Manager, Strategy and Policy at Washington Metropolitan Area Transit Authority (Metro) in Washington, DC. Kit's work focuses on developing strategies and policies that drive change to make Metro better for riders and more valuable for the region, while delivering initiatives to improve the agency's operational effectiveness. Kit graduated with his Master's degree in Business Administration from the University of Chicago, supported by the Civic Scholars program which emphasizes the value of equipping public sector leaders with business fundamentals, evidence-based research, and practical experience to bolster their work.

Jennifer DeBruhl

Jennifer DeBruhl, AICP, PMP, was appointed the Director for the Virginia Department of Rail and Public Transportation in June 2022 by Governor Youngkin. She also serves as a member of the Commonwealth Transportation Board, chair of the Virginia Passenger Rail Authority board, and as a board member for several transit organizations around the Commonwealth. Ms. DeBruhl joined DRPT as the Chief of Public Transportation in 2016 following over 20 years of distinguished public service to the transportation community, at the Virginia Department of Transportation (VDOT) and Federal Highway Administration (FHWA). At DRPT, Ms. DeBruhl played a significant role in the development and implementation of Virginia's Making Efficient + Responsible Investments in Transit (MERIT) program increasing accountability in public transportation funding, launching the Virginia Breeze intercity bus service, and spearheading the new Transit Ridership Incentive Program to expand regional connectivity and reduce barriers to transit use. Ms. DeBruhl has an undergraduate degree in Urban Studies, a master's degree in Urban and Regional Planning, and a Certificate in Public Management, all from Virginia Commonwealth University. She is a member of the American Institute of Certified Planners, Leadership APTA Class of 2018, Chair of the APTA State Affairs Committee and member of the Board of Directors, Vice Chair of the AASHTO Multi-state Transit Technical Assistance Program Steering Committee, and is a certified Project Management Professional.

Jason DeGraw

Jason W. DeGraw is a member of the research and development staff of Oak Ridge National Laboratory. Prior to joining ORNL, he was a mechanical engineer at the National Renewable Energy Laboratory in Golden, CO. He holds a BS in Mechanical Engineering from the University of Houston and MS and PhD degrees in Mechanical Engineering from the Pennsylvania State University. Dr. DeGraw's research work has focused on the numerical simulation of thermo-fluid flow phenomena at a variety of scales and in several different application areas. His recent work in building performance simulation has applications in indoor air quality and building security and resilience. He has also done consulting in scientific computing and geographical information systems and collaborated on several BIM-related projects. Dr. DeGraw is

currently a member of the development team of EnergyPlus, the U.S. DOE's flagship building energy simulation engine. He is an active member of ASHRAE, was the first chair of ASHRAE TC 2.10 Resilience and Security, and was a member of the ASHRAE Epidemic Task Force.

Nathan Edwards

Nathan Edwards is the Director of Government Development at U.S. Partnership for Assured Electronics. Over the past 2-1/2 years, he led a team that conducted over 200 field experimental runs with aerosol dispersion and control on public transit and school buses (bus-in-motion studies), indoor work environments, and with improvised masks as part of COVID-19 rapid response work. His recent work has been published in peer review journals, and he has been asked to participate in national panels with the National Academies of Sciences, Engineering, and Medicine; U.S. Dept of Homeland Security; and the National Association for Pupil Transportation. Mr. Edwards has over 15 year experience in science and technology, with research efforts resulting in several patents and publications. He previously worked at MITRE Corporation, U.S. Dept of Energy Sandia National Laboratories, Boeing, and Medtronic. He has a prior career in public health and safety serving as a fire officer and mobile intensive care paramedic. Mr. Edwards as an MS in Electrical and Computer Engineering from the University of Illinois and a BS in Computer Systems Engineering from Arizona State University.

Robyn Gershon

Robyn Gershon is a Clinical Professor and researcher at the NYU School of Global Public Health. She received her doctorate in public health from the Johns Hopkins University, School of Public Health and has served as Professor at several leading institutions including UCSF, where she first met her longterm collaborator Lewis Kraus. Her research focuses on barriers and facilitators to disaster preparedness–especially with respect to vulnerable populations and essential workers. For the past several years, she and Lewis have been exploring the important role that ADA-Coordinators play with respect to emergency management and now, more recently, in terms of assuring the inclusion of people with disabilities.

Susan Grant-Muller

Susan is Chair in Technologies and Informatics at the Institute for Transport Studies, University of Leeds, UK and a Fellow of the Alan Turing Institute. A statistician by discipline, Susan leads a programme of research into large-scale data analytics and the role of novel data in developing sustainable transport policy. As part of the national research council (EPSRC) funded Transport Risk Assessment for COVID-19 Knowledge (TRACK) project, she is leading a programme of work to improve knowledge of user behaviour and exposure (or contribution) of different population demographic to COVID-19 transmission on surface public transport.

Jody Holton

Jody Holton is the Chief Planning & Strategy Officer at SEPTA. She has over 20 years of experience in community and transportation planning in the Philadelphia region, working closely with municipalities, developers, and public agencies to achieve their vision for the built environment. She chairs the State Transportation Advisory Commission and serves on the Delaware Valley Regional Planning Commission Board. Prior to joining SEPTA, Ms. Holton was the Executive Director of the Montgomery County Planning Commission and she has worked at the consulting firms of KSK, Inc. and URS Corporation. She has a BA in Geography from the University of Colorado at Boulder, a certificate in Real Estate Development from the Urban Land Institute, and she is a certified planner by the American Institute of Certified Planners. She lives in Narberth, PA with her husband and two kids.

Yuguo Li

Yuguo Li is a Chair Professor of Building Environment, and Honorary Professor of School of Public Health, the University of Hong Kong, currently serves as Associate Dean (Research) of Engineering, and was the former Head of Department. He serves as Editor-in-Chief of the international journal Indoor Air. Li was a Principal Research Scientist and the team leader of indoor environments at CSIRO Australia, prior to 2000 when he joined the University. His current research topics include city climate/environment, environment studies of infection and indoor environment. His work led to the findings of the roles played by airflow in the 2003 Amoy Gardens SARS outbreak. He carried out research on hospital ventilation in preparation for influenza pandemics for Hospital Authority and WHO. He contributed to the dynamic theory of natural ventilation and hospital ventilation. He published over 200 journal articles in engineering, environment, climate and health journals including Indoor Air, Climate Dynamics, PNAS and New England Journal of Medicine with over 4500 SCI citations (SCI h-index = 39). He led and co-authored 2009 WHO guidelines on natural ventilation. His research has been supported by 2 RGC CRF, 12 RGC GRF, 1 Horizon2020, 4 RFCID and 3 NSFC grants as PI since 2000 (>HK$40m). WHO, Boeing and Microsoft, have also supported his work.

Liora Malki-Epshtein

Liora Malki-Epshtein is an Associate Professor in Urban Fluid Mechanics and Air Quality, in the Department of Civil, Environmental and Geomatic Engineering at University College London. During the Covid-19 pandemic, Liora worked with Veolia to identify and mitigate risks to municipal waste collection crews, and has been working with Transport for London since April 2020, first on protection for bus drivers and then to reduce risks to passengers as an investigator on project VIRAL. These studies identified the need to introduce ventilation standards and improve ventilation on vehicles, as well as provide enhanced protection to bus drivers. She is Co-Investigator and field studies lead on project AIRBODS, which was set up as a rapid response COVID-19 project and in 2021, Liora led the largest Environmental Study of its kind worldwide for the UK Government's Covid-19 Events Research Programme, a study of air quality and transmission risks that enabled the UK to improve safety and finally re-open events in culture, music and sports industries. These projects have all quantified existing indoor air quality in a wide range of settings and highlighted the importance of improving and reducing overcrowding in public spaces. The projects have at the same time identified the key challenges in implementing ventilation systems that are suitable for infection control yet can also maintain thermal comfort with low energy use.

Catherine Noakes

Cath Noakes is Professor of Environmental Engineering for Buildings in the School of Civil Engineering at the University of Leeds. She is currently Deputy Director of Leeds Institute for Fluid Dynamics and Co-Director for the EPSRC Centre for Doctoral Training in Fluid Dynamics. Cath is a chartered mechanical engineer, with a background in fluid dynamics. She leads research into ventilation, indoor air quality and infection control in the built environment. Her research group carry out experimental and modelling based studies, to explore the transport of airborne pathogens, the influence of indoor airflows and effectiveness of engineering approaches to controlling airborne disease transmission.

Since April 2020 she has been involved in the UK COVID-19 response, including co-chairing the Environment and Modelling sub-group of the UK Scientific Advisory Group for Emergencies (SAGE) focusing on the science underpinning environmental transmission of COVID-19. Cath is a Fellow of the Royal Academy of Engineering, Institution of Mechanical Engineers (IMechE), Institute of Healthcare Engineering and Estates Management (IHEEM) and Honorary Fellow of the Chartered Institution of Building Services Engineers (CIBSE). She was awarded an OBE in 2020 for services to the Covid-19 pandemic.

Madeleine Parker

Madeleine Parker is a PhD Candidate in City and Regional Planning at the University of California, Berkeley. Her research focuses on the intersection of travel behavior, public transit, land use, and housing. She received a Master in Public Affairs from Princeton University and previously worked in New York City government.

Katherine Ratliff

Katherine Ratliff is a principal investigator at the U.S. Environmental Protection Agency's Office of Research and Development, working under EPA's Homeland Security Research Program in the Center for Environmental Solutions and Emergency Response. She uses modeling, laboratory, and field-scale studies to develop and evaluate decontamination and sampling strategies for environmental contaminants, including bioaerosols. She is currently leading EPA's research to evaluate the efficacy of different air treatment technologies against airborne pathogens and to inform test method development for these technologies. Dr. Ratliff received her B.A. in Earth and Environmental Sciences from Vanderbilt University and a Ph.D. in Earth and Ocean Sciences from Duke University.

Christopher Sales

Christopher M. Sales is an Associate Professor in the Civil, Architectural, and Environmental Engineering Department at Drexel University. He spearheaded the formation of a partnership between Drexel researchers and the Southeastern Pennsylvania Transportation Authority (SEPTA) to address the impacts that COVID-19 was having on the mass transit industry. Through this partnership, SEPTA and Drexel were able to successfully secure funding from the Federal Transit Administration (FTA) of the Department of Transportation (DOT) for a research project aimed at evaluating how air ventilation and air purification technologies could be used to reduce COVID-19 transmission risks in mass transit vehicles. Dr. Sales has research expertise in environmental microbiology, environmental biotechnologies, and environmental remediation technologies. He is also an Affiliated Researcher of the C&J Nyheim Plasma Institute of Drexel University, collaborating on the research and development of innovative non-thermal plasma technologies for food safety, public health, and environmental applications. He received his B.S.E. in Chemical and Biomolecular Engineering and B.A. in Environmental Studies from the University of Pennsylvania and his M.S. and Ph.D. in Civil and Environmental Engineering from the University of California, Berkeley.

Brian Sherlock

Brian Sherlock began work in transit as a part-time operator in 1979, driving for King County Metro in Seattle. He spent several decades in a variety of local elected and appointed union positions, with a heavy emphasis on safety. About a decade ago, he began working for the ATU International intermittently and in 2015, moved to Washington DC, to take on the full-time job of representing over 200,000 front-line employees, covering their safety issues in the US and Canada. A team he assembled recently won a grant from the Federal Transit Administration seeking a redesign of the bus operator's workstation, to resolve a wide range of issues, including elimination of blind spots causing pedestrian injuries and deaths, designing assault and respiratory protections, reducing ergonomic harm, improving cognitive loading and distraction issues, and improving access. The next stage is to build what has become called the "Bus of the Future".