INTERNATIONAL DECONTAMINATION RESEARCH AND DEVELOPMENT CONFERENCE

DEC 5-7, 2023 | HYATT PLACE & HYATT HOUSE CHARLESTON HISTORIC DISTRICT | CHARLESTON, SC

SPEAKER BIOGRAPHIES

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U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) INTERNATIONAL DECONTAMINATION RESEARCH AND DEVELOPMENT CONFERENCE

KEYNOTE SPEAKERS



Lance BrooksU.S. Environmental Protection Agency

Lance Brooks is currently the Acting Division Director of the Homeland Security and Materials Management Division, within the U.S Environmental Protection Agency's Center for Environmental Solutions and Emergency Response. Lance was previously at the Defense Threat Reduction Agency (DTRA) leading the Biological Threat Reduction Department within the

Cooperative Threat Reduction Directorate. The Department is focused on protecting the United States and its allies from especially dangerous pathogens. Prior to DTRA, Lance was the Chief for the Chemical/Biological Research & Development Branch within the Science and Technology Directorate of the Department of Homeland Security where work included research, development, testing, and evaluation in Chemical/Biological Detection as well as Chemical/Biological Attack Resiliency. Lance also has 13 years of previous experience as an analytical chemist with the EPA. Lance earned a B.S. in Biochemistry from North Carolina State University.



Mark DurnoU.S. Environmental Protection Agency

Mark Durno received a Bachelor of Science degree in civil engineering from the Rose-Hulman Institute of Technology. At EPA, Mark has served as an On Scene Coordinator, Supervisor, and Deputy Chief in the Emergency Response Branch of the Superfund Program in Region 5 since 1997. He currently serves as Regional Homeland Security Advisor. As part of his Homeland Security work, Mark coordinates Region 5's Continuity of Operations and Disaster Recovery programs. Mark is stationed in EPA's Westlake, Ohio office.

Mark's efforts have included numerous emergency response actions to chemical and oil spills in Region 5; support to national counter-terrorism planning and exercises; and, international biological response planning. Notably, Mark has worked on or coordinated major incidents, including the Capitol Hill Anthrax response in Washington, D.C; Hurricane Katrina/Rita disaster response in Louisiana; the Flint Drinking Water Incident in Michigan; and the East Palestine Train Derailment Emergency in Ohio. For his accomplishments, Mark was named EPA's National On-Scene Coordinator of the Year in 2007, received a Gold Medal for Exceptional Service in 2017, and received EPA's National Homeland Security Award in 2022.



Maureen Gwinn

U.S. Environmental Protection Agency

Dr. Maureen Gwinn is the Principal Deputy Assistant Administrator for Research and Development and Chief Scientist at the U.S. EPA. In these roles, specific duties include providing direction to ORD on overall program goals, objectives, policies, strategies, technical and scientific approaches, and program plans, based on a recognized scientific expertise. She also chairs the Agency Science Technology and Policy Council and oversees the Agency's scientific integrity program. Dr. Gwinn was most recently the National Program Director for

ORD's Sustainable and Healthy Communities (SHC) National Research Program. The SHC program's integrated approach to research supports EPA in order to (1) advance the pace of contaminated site cleanups; (2) return contaminated sites to beneficial use in their communities; (3) protect vulnerable groups, especially children; (4) revitalize the most vulnerable communities; and (5) understand the connections between healthy ecosystems, healthy people, and healthy communities.

Dr. Gwinn was formerly the Director of the Biomolecular and Computational Toxicology Division within ORD's Center for Computational Toxicology Exposure where she focused on research translation of new approach methods, particularly as it relates to hazard characterization and risk assessment for regulatory decision-making. Dr. Gwinn served as the Senior Science Advisor to the Deputy Assistant Administrator for Science focusing on the role of science at the U.S. EPA, and prior to that she served as an Associate National Program Director for Community Public Health in SHC. Dr. Gwinn joined the U.S. EPA in ORD's National Center for Environmental Assessment, where she worked on human health hazard assessments for the Integrated Risk Information System program. She has been a member of the Society of Toxicology since 2005, and has served in many nominated and elected capacities, including on the Education Committee. Dr. Gwinn earned her BS degree in Biology at Bates College in Lewiston, Maine in 1994 and her MS and PhD in Oral Biology at the State University of New York in Buffalo, New York in 1997 and 2001, respectively. She became a diplomate of the American Board of Toxicology in 2007 and was nominated to the Academy of Toxicological Sciences in 2014.



Greg Sayles

U.S. Environmental Protection Agency

Dr. Gregory Sayles directs EPA's Center for Environmental Solutions and Emergency Response (CESER), one of four research centers in the Office of Research and Development. CESER conducts applied, stakeholder-driven research and provides responsive technical support to help solve the Nation's environmental challenges. Dr. Sayles brings over 30 years of experience in hands-on research, strategic planning, and management to this position. Early in his research career, Greg developed bioremediation processes to clean soils and sediments,

and risk management approaches for endocrine disrupting chemicals in the environment. Before standing up CESER, Dr. Sayles directed ORD's National Homeland Security Research Center (NHSRC). Greg earned Bachelors, Masters, and Doctoral degrees in Chemical Engineering from the California Institute of Technology, the University of California at Davis, and North Carolina State University, respectively.



William Steuteville

U.S. Environmental Protection Agency

Bill has worked in U.S. EPA's emergency response and hazardous materials and oil cleanup program for over 37 years. Bill has supported many national efforts to enhance preparedness and planning for radiological disaster cleanup. Bill was one of the lead planners and exercise directors for the 2010 Liberty RadEx National Level Exercise. Most recently, Bill has worked with EPA's National Radiation Preparedness Group to develop a draft *Wide-Area Radiological Disaster Cleanup Strategy*. Before joining EPA, Bill worked in agriculture industry and soil and

water conservation.



Dana Tulis

U.S. Coast Guard

Ms. Tulis assumed the duties of the Director, Emergency Management (CG-5RI) in January, 2016. She is responsible for establishing, developing and implementing policies, strategies and goals to meet Coast Guard's incident preparedness and response mission. She provides strategic programmatic oversight for the Offices of Search and Rescue Policy, Emergency Management and Disaster Response, and Marine Environmental Response Policy.

Prior to this position, Ms. Tulis served as both the Deputy Office Director and Acting Office Director for the Office of Emergency Management, Office of Solid Waste and Emergency Response (OSWER) for the Environmental Protection Agency (EPA). She managed a \$250 million budget and 75 staff, chaired the 15-Agency National Response Team and provided direction to the Regional Response Teams and the Agency's National Incident Coordination Team for preparedness and response for large scale national emergencies. She provided leadership to EPA's preparedness and response programs for chemical, biological, and radiological and nuclear agents including the management of mobile analytical assets. She also provided strategic direction



to the Agency's chemical and regulatory prevention programs. During the Deepwater Horizon response, Ms. Tulis served as the Agency's National Incident Coordinator; overseeing the Headquarters' Emergency Operations Center and coordinating with USCG, NOAA and EPA leadership. She provided Agency guidance to responses such as Super Sandy, Hurricanes Katrina and Rita, Joplin Tornado, Yellowstone River Oil Spill, Midwest flooding as well as day-to-day Emergency Responses and Removal actions.

Prior to OEM, Ms. Tulis served as the Center Director, Analytical and Operations/Data Quality Center, Office of Emergency and Remedial Response at EPA. In this role, she directly supported the World Trade Center response and ensured the sampling and interpretation of over 235,000 laboratory analyses and supported the risk assessment and cleanup efforts.

Ms. Tulis' prior positions at EPA included serving as the Director of the Implementation Division and Chief of the Operations Branch in the Office of Underground Storage Tanks, OSWER.

Ms. Tulis is a native New Yorker; possesses bachelor degrees in Biology and Psychology from Colby College and a Master's Degree in Environmental Engineering from Duke University.

Ms. Tulis has received Special Commemorative Awards for the National Anthrax Cleanup, the World Trade Center response and Hurricanes Katrina and Rita; five EPA Agency Awards including the Science Award for *Bacillus Anthracis* and seven EPA Bronze Medals.



Marcus Martin
Institute for Diversity and Inclusion in Emergency Management

Marcus Martin serves as the Chief of Operations for the Institute for Diversity and Inclusion in Emergency Management (I-DIEM) where he leads the implementation of nationwide programs dedicated to diversity, equity, and inclusion (DEI) in emergency management and community-based adaption projects. In his role, he oversees Programs and Services including the Bridging Support for Underserved and Indigenous Populations in Landfall Disasters (BUILD) Program, HERricane Program, and coordination, and deployment of I-DIEM Equity Response Teams.

Mr. Martin is a tenured and accomplished emergency management professional with over 23 years' experience in Disaster Response and Recovery Planning. Previous experiences include role as Division Director of Preparedness and Recovery with Hillsborough County Fire Rescue, Office of Emergency Management, Emergency Management consulting in the private sector and serving as a professional Firefighter/Paramedic with the Orange County Fire Rescue Department and the Town of Eatonville Volunteer Fire Department in Orlando, FL. Mr. Martin received his Master of Science (M.S.) degree in Emergency Management from Jacksonville State University and Bachelor of Arts (B.A) in Public Relations from the University of South Carolina.

Mr. Martin is also a Diversity, Equity, and Inclusion professional with a DEI certificate from Cornell University, who has worked with organizations at the local, state, and federal levels on assessing policy and plan reviews and developing and implementing strategies to improve organizational DEI.

Mr. Martin enjoys providing advocacy for our communities and now uses his experience to advocate for professional parity for women, people of color and other marginalized groups.



CONFERENCE CHAIRS



Judy Ancharski

U.S. Environmental Protection Agency

Judy Ancharski graduated from The Pennsylvania State University with a Bachelor of Arts degree in Journalism/Advertising. She married her college sweetheart and have two children, Kyle is a University of North Carolina- Chapel Hill graduate and Tiffany is a University of South Carolina graduate.

Judy began her Federal Government career as a Department of Defense Intern with the U.S. Army Materiel Command (AMC), U.S. Army Communications-Electronics Command (CECOM)

located in Fort Monmouth, New Jersey. Her position as a Contract Specialist for the Army provided acquisitions skills that led to major defense contracts negotiations and equipment purchases.

Judy continued my contracting career with the U.S. Department of Agriculture (USDA) preparing Construction and Architectural & Engineering (A&E) type contracts in Greenbelt, Maryland. Next, she worked for the U.S. EPA in the Procurement Operations Division in Durham, North Carolina and was responsible for the negotiations, award, and monitoring contractual terms/requirements for supply and services contracts.

She currently served as a Program Analyst for the Center for Environmental Solutions and Emergency Response (CESER), Homeland Security & Material Management Division (HSMMD) with the EPA, assisting staff and HSMMD leadership successfully and efficiently to implement several programs to ensure that HSMMD needs are effectively met.



Michael Pirhalla

U.S. Environmental Protection Agency

Michael Pirhalla is a Physical Scientist in EPA's Office of Research and Development (ORD) in the Homeland Security and Materials Management Division (HSMMD) of the Center for Environmental Solutions and Emergency Response (CESER). Michael has a BS in meteorology from Plymouth State University, an MS in atmospheric science from the University of Alaska Fairbanks, and a PhD in atmospheric science from North Carolina State University. He started his EPA career as a Pathways Intern while working on his dissertation in flow and dispersion

within EPA's Fluid Modeling Facility meteorological wind tunnel laboratory. After graduation, Michael has continued his research of dispersion in urban and built environments using data from the wind tunnel and Large Eddy Simulations (LES) to improve formulations in dispersion models. Recently, he has been involved in the interagency Analysis of Coastal Operational Resiliency (AnCOR) project as a sampling and analysis co-lead and continues to work on improved sampling and analysis methods for surfaces contaminated with biological agents.



Viktoriya Plotkin
U.S. Environmental Protection Agency

Ms. Viktoriya Plotkin is the State Engagement Lead for Emergency Management. Ms. Plotkin began her career at EPA in 2010 as an assistant in grants management in the Office of Research and Development's (ORD) National Center for Environmental Research. Starting in 2012, Ms. Plotkin served as a special assistant for several executives in ORD for the next five years, including the Associate Assistant Administrator, Deputy Assistant Administrator for Management, Assistant Administrator for Science, and the Assistant Administrator. Ms. Plotkin

joined the National Homeland Security Research Center in 2018, coordinating policy implementation, state engagement, and interagency engagement. Viktoriya earned a B.S. in accounting and marketing and a master's in public policy with a specialization in international security and economic policy from the University of Maryland (College Park).





Erin Silvestri-NiemerU.S. Environmental Protection Agency

Erin Silvestri-Niemer is the branch supervisor for the Materials Management and Oil Spill Branch, within the U.S Environmental Protection Agency's (EPA), Center for Environmental Solutions and Emergency Response, Homeland Security and Materials Management Division (HSMMD). Prior to joining MMOSB, she has 16 years previous experience supporting EPA's Homeland Security Research Program as both an environmental health scientist and biologist. Her more recent research focused on development of sampling protocols for pathogens, leading

the Environmental Sampling and Analytical Methods Program, and leading sampling and analysis efforts for the Analysis for Coastal Operational Resiliency (AnCOR) Wide Area Demonstration project. She holds a Master's in Public Health in Occupational and Environmental Epidemiology from the University of Michigan School of Public Health and a certificate in Geographic Information Systems from Northern Kentucky University.

COMMITTEE CHAIRS

John Archer

U.S. Environmental Protection Agency

John Archer is a Research Industrial Hygienist within EPA's Center for Environmental Solutions and Emergency Response (CESER), Homeland Security and Materials Management Division (HSMMD). His current research areas include testing and evaluation of emergency responder chemical, biological and radiological (CBR) agent and toxic industrial chemical detectors, novel bioaerosol sampling methods and strategies, exposure assessment to CBR threats, and chemical/biological decontamination of responder personal protective equipment (PPE). Mr. Archer holds an M.S. in Environmental Sciences and Engineering from the University of North Carolina at Chapel Hill and is also a Certified Industrial Hygienist (CIH).

Char Bowling

U.S. Environmental Protection Agency

Bio not available.

Worth Calfee

U.S. Environmental Protection Agency

Dr. Worth Calfee is senior research microbiologist with EPA's Homeland Security and Materials Management Division within the Center for Environmental Solutions and Emergency Response. He has over 25 years of research experience with 15 years at the U.S. EPA in decontamination and consequence management of Chemical, Biological, and Radiological (CBR) agents. His research foci include sampling, decontamination, and management of wastes from CBR contamination incidents. Dr. Calfee earned his Ph.D. in 2007 from East Carolina University, where he studied the impacts of anthropogenic disturbance on estuarine microbial communities. He also earned a B.S. in molecular biology from East Carolina University in 1999. Prior to joining the U.S. EPA, Dr. Calfee studied quorum sensing, regulation of carbohydrate metabolism, and virulence factor expression in the opportunistic pathogen Pseudomonas aeruginosa, at East Carolina University's Brody School of Medicine.

Jamie Falik

U.S. Environmental Protection Agency

Jamie Falik is a researcher with the U.S. EPA Office of Research and Development, Center for Environmental Solutions and Emergency Response, Homeland Security and Materials Management Division. Her research focuses on data management, scientific applications and spatial analysis. Jamie holds a Master of Applied Science from Johns Hopkins University, School of Public Health with a focus on Spatial Analysis for Public Health.



Chelsea L. Hintz

U.S. Environmental Protection Agency

Chelsea is a Biologist with the U.S. EPA in Homeland Security and Materials Management Division. She received her PhD in 2022 from the Department of Biological Sciences at the University of Cincinnati as a member of the Booth lab. She is broadly interested in stream ecology. Her dissertation work focused on determining the impact of stream burial on stream ecosystems and evaluating the near-term impacts of stream daylighting (restoration) in urban streams. She conducts research that informs policy and management of water resources.

Kiara Lech

U.S. Environmental Protection Agency

Dr. Kiara Lech is a biologist at the U.S. EPA Office of Research and development in Cincinnati, OH and leads the biodegradation studies within the Oil Research Program. Her interdisciplinary background developed in the public and private sectors with expertise in contaminant biodegradation, environmental microbiology, and water quality chemistry.

Amelia McCall

U.S. Environmental Protection Agency

Bio not available.

Logan Rand

U.S. Environmental Protection Agency

Logan Rand is a chemist in the ORD CESER Homeland Security and Materials Management Division's Disaster Characterization Branch. He conducts research in chemical threat methods for the Environmental Sampling and Analytical Methods Program (ESAM). Logan completed his Bachelor's in Chemistry at Pacific Lutheran University, his PhD in Geochemistry at Colorado School of Mines, and conducted postdoctoral research with Paul Westerhoff at Arizona State University and more recently with Todd Luxton in the CESER Land Remediation and Technology Division. His interest areas include environmental fate and transport, aqueous geochemistry, and analytical chemistry, with research experience in inorganic quantification and characterization methods and environmental chemistry of nanoparticles and colloids.

Katherine Ratliff

U.S. Environmental Protection Agency

Dr. 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 numerical models, lab, and field-scale studies to develop and evaluate tools for remediating environmental contaminants, including leading EPA's research to evaluate the efficacy of different air treatment technologies against airborne pathogens. 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.

Amy Schwarber Krause

U.S. Environmental Protection Agency

Mrs. Amy Krause is a scientist in Research and Development at the EPA working in the Waste Management and Oil Spill Branch. Her research focuses on landfill microbiology, debris generated from disasters, contaminants in landfills, and other current waste management issues. She also participates in lab and field work throughout the United States. Mrs. Krause has a master's in environmental toxicology from the University of South Alabama, and degrees in biology and art from Bellarmine University.



Sanjiv Shah

U.S. Environmental Protection Agency

Dr. Sanjiv R. Shah is a Senior Microbiologist in the Homeland Security & Materials Management Division within the U.S. EPA's Office of Research and Development. Since 1998, while working for the U.S. Army's Edgewood Chemical Biological Center (ECBC) and the EPA-ORD, he has been actively contributing to biodefense research, especially, in the development of analytical methods; and development, and test and evaluation of biosensors technologies for rapid, specific, sensitive, and high-throughput detection of biothreat agents in environmental and water samples. He has been involved in several biodefense research collaborations at the national and international level. As a member of many interagency biodefense/homeland security expert panels, committees, and work groups, he has been contributing to many national programs, including the White House Office of Science and Technology Policy. Prior to 1998, he worked at premier research institutions such as the NIH, and the University of Maryland Medical School, and also, in pharmaceutical industries, to enrich his basic and applied research experience in microbiology, molecular biology, molecular neurobiology, industrial microbiology, and antibiotic fermentations. He holds B.S., M.S., and Ph.D. degrees in Microbiology. He has published his research in international journals and reports. He has received many prestigious awards from the U.S. Army, EPA, and other highly reputed scientific institutions for his contributions to biodefense research.

Josh Steenbock

U.S. Environmental Protection Agency

Josh Steenbock is a researcher in EPA's Office of Research and Development's Center for Environmental Solutions and Emergency Response, Homeland Security and Materials Management Division. His research focuses on novel water quality sensors and portable water decontamination systems. Josh holds a B.S. in Biology from Wheeling Jesuit University and an M.S. in Environmental Science from Duquesne University.

Sheryl Thomas

U.S. Environmental Protection Agency

Bio not available.

LAST NAMES A-F

Lamis Amer

University of Miami

Lamis Amer is currently a PhD candidate in Industrial and Systems Engineering (ISE) at the University of Miami. Her research is uniquely positioned at the nexus of operations research, risk and resilience assessment and decision modeling for climate mitigation and adaptation. In her doctoral work, Lamis has concentrated on the development of adaptive decision-making models to enhance resilience in the face of sea-level rise, specifically targeting the wastewater treatment and disposal systems. This research, aimed at fortifying infrastructure against the challenges posed by climate change. During her master's studies, Lamis demonstrated her commitment to sustainable practices by designing environmentally friendly transportation systems. She focused on optimizing cold distribution activities using reefer trucks, a critical contribution to green logistics. For this exemplary work, she was nominated for the EthOR and IFORS awards in 2015 and 2017, both of which emphasize the role of operations research in building a sustainable and ethical future. Lamis has actively shared her ongoing research with the wider scientific and environmental community, presenting at conferences such as the American Geophysical Union Fall meeting and The UM Climate and Health Symposium. Her involvement showcases her commitment to disseminating knowledge that is vital to addressing the climate crisis. Beyond her academic achievements, Lamis has shown a passion for climate advocacy. She has volunteered in events aimed at raising awareness about climate change and is a committed member of the Resilience Youth Network (RYN). Among her contributions to the RYN is the development of a fellowship curriculum on resilience and climate adaptation, illustrating her dedication to educating the next generation of climate-conscious advocates. Her work symbolizes



a bridge between academic research and practical solutions, underscoring her position as a forward-thinking scholar in climate change.

Lt. Michael H. Ames

U.S. Air Force

1st Lieutenant Michael Ames is an active duty Bioenvironmental Engineer and Flight Commander currently assigned to the 4th Operational Medical Readiness Squadron, Seymour Johnson AFB, North Carolina. He has over 17 years of occupational, environmental, and radiological health experience, to include MARSSIM site surveillance and radiological instrumentation. He holds a B.S in Environmental Science from American Military University (Charles Town, West Virginia) and a dual M.S. in Environmental Engineering and Science & Industrial Hygiene from the Air Force Institute of Technology (Dayton, Ohio). He is also a Certified Industrial Hygienist and Registered Radiation Protection Technologist.

Harsh Anand

University of Virginia

Harsh Anand is a final-year Ph.D. candidate in Systems Engineering at the University of Virginia, focusing on using Data Science and Operations Research to improve emergency management, particularly in evaluating the effectiveness of hurricane evacuation orders. He holds a Master's degree in Data Science and Analytics from Penn State University and has over six years of experience in Strategic Operations and Advanced Analytics through consulting roles. He serves on the Editorial Board of INFORMS ORMS Student Magazine and is a peer reviewer for journals and conferences such as the Transportation Research Board.

Cindy Andujar

Air Force Institute of Technology

Bio not available.

Veronica Aponte-Morales

U.S. Environmental Protection Agency

Veronica Aponte-Morales is a Physical Scientist at the Environmental Protection Agency's Office of Water, Water Infrastructure & Cyber Resilience Division (WICRD). The WICRD's focus is on enhancing the preparedness and resiliency of the nation's drinking water and wastewater infrastructure. As a member of the Water Laboratory Alliance Team, Verónica is the Program Manager for the Water Contaminant Information Tool (WCIT), a database that provides information on contaminants of concern for drinking water and wastewater systems. The information is useful for guiding various activities in Emergency Response. She has also developed technical documents for the water sector that focus on the remediation and clean-up phases following a contamination incident. Veronica has an interdisciplinary educational background with a B.S. in Chemistry, an MS in Environmental Science, and a PhD in Environmental Engineering.

Madeline Beal

U.S. Environmental Protection Agency

Madeline Beal joined EPA's Office of the Administrator, Office of Public Affairs as Senior Risk Communication Advisor in 2019. She coordinates and informs risk communication efforts across the agency with a focus on creating needed infrastructure and tools to support the diversity of issues EPA communicates about. She joined EPA from the National Science Foundation (NSF) where she oversaw communications for the Social, Behavioral and Economic Sciences Directorate. There she focused on using the science of science communication to improve the reach and content of a wide variety of NSF products. Her career also includes communication-roles at the U.S. Health Resources and Services Administration and the U.S. Interagency Council on Homelessness, as well as bench science roles at the National Institutes of Health and the U.S. Department of Agriculture. Madeline earned a Master of Public Health from Johns Hopkins where she focused on environmental health and risk communication and a Bachelor of Science in Biology from Tufts University.



Tyson Bernthal

DryDeon™ Defense

Tyson Bernthal is an entrepreneur and C-suite level consultant with 15 years of experience advancing Janitorial Sanitation companies nationwide. He has supported the development and implementation of sprayers, foggers, ionization, and several other decontamination technologies. His efforts have helped establish best practices for pathogen, microbe, viral, and sporicidal elimination. Tyson received his B.S. from the College of Charleston.

Diego Mauricio Rojas Blanco

Los Alamos National Laboratory

Diego Rojas is a postdoctoral research associate at Los Alamos National Laboratory (LANL) working with the Countering weapons of mass destruction (CWMD) team. He was trained as a mechanical engineer at Universidad de Los Andes, Colombia; and earned a PhD in Earth Science and Engineering from the King Abdullah University of Science and Technology, Saudi Arabia in 2021. His interests are computational mechanics, numerical modeling, computational fluid dynamics and atmospheric pollutant transport. He is currently working on the Quick Urban Industrial Complex (QUIC) code suite, a fast solver for atmospheric pollutant transport in the urban landscape with application to CBR incidents and wildland fire.

Timothy Boe

U.S. Environmental Protection Agency

Timothy Boe is a Geographer with the U.S. EPA's ORD. Timothy's work primarily focuses on response and cleanup issues following chemical, biological, radiological and nuclear (CBRN) incidents. He has also been developing computer-based decision support tools to aid decision makers in responding to wide-area contamination incidents. Before joining the EPA, Timothy worked as an Oak Ridge Institute for Science and Education Fellow where he conducted research on wide area CBRN remediation. Timothy has an M.S. and a B.S. in Applied Science from Arkansas Tech University.

Veera M. Boddu

U.S. Environmental Protection Agency

Veera is a Senior Scientist (Remediation Research) with the U.S. EPA, at Research Triangle Park, North Carolina. He is with the Wide Area and Infrastructure Decontamination Branch, Homeland Security Research Program, of Center for Environmental Solutions and Emergency Response (CESER), Office of Research and Development (ORD).

In the past, he worked for the U.S. Dept of Agriculture, in Peoria, and for the U.S. Army Corps of Engineers, Engineer Research & Development Center (ERDC), in Champaign, IL. He has diverse research experience, has published about 90 peer reviewed journal articles, 20 Army Technical reports, edited/co-authored 4 books, 5 patents, and about 100 conference presentations. His research focused on Military explosives properties and synthesis, Wastewater Treatment, Air pollution control, Biopolymers, Biocomposites, and Biochar.

Dr. Boddu is a Chemical Engineer, a Registered Professional Engineer (PE) in the state of Missouri) and a Board-Certified Environmental Engineer by the American Academy of Environmental Engineers, and a Fellow of the American Institute of Chemical Engineers.

Christopher Bowers

XCMR Inc.

Christopher Bowers, a Computational Analyst in Modeling and Simulations at XCMR is completing his PhD at the University of North Carolina at Chapel Hill, with a focus on complex fluid dynamics. He has extensive experience in computational fluid dynamics, using open-source software to model flow in porous media on high-speed supercomputers. Christopher also has experience in experimental techniques that span a variety of engineering disciplines, including chemical analysis of water and wastewater, observation well drilling, and bench-scale radioactive tracer studies.



Christopher brings his computational experience to XCMR, using ray-tracing and fluid dynamic modeling software to aid in design of UV disinfection technology. By using such simulation techniques, new prototypes can be designed and tested more efficiently than if we only used physical experiments.

Mr. Bowers has received his BSE in environmental engineering from the University of Michigan, Ann Arbor with a minor in mathematics. He has given several presentations at international scientific conferences, and published papers in the best environmental engineering and physics journals.

Adam Burdsall

U.S. Environmental Protection Agency

Dr. Burdsall received a Bachelor of Science degree in geology with a minor in chemistry from Wittenberg University specializing in sedimentology. He earned a Master's degree in Earth and Environmental Sciences and a Ph.D. in Environmental Sciences from Wright State University studying geochemistry and remediation using iron oxide minerals. Dr. Burdsall completed a 3 year ORISE Post Doc at the Air Force Institute of Technology at Wright Patterson Airforce Base studying bioaerosols and advanced oxidation methods. He is now an EPA post-doc continuing to study bioaerosol release and biosolids decontamination for pathogen destruction.

Anne Busher

CSS Inc.

Ms. Busher brings more than 30 years of experience supporting EPA with performing and developing improved approaches for emergency response and environmental assessment, investigation, and remediation projects. Ms. Busher is a recognized expert in addressing contamination from chemical warfare agents (CWAs), toxic industrial chemicals (TICs), and biological agents. She began supporting EPA's NDT/CMAD at the start of the DATS I contract in 2007, became DATS Program Manager in 2010, and continued to serve as Program Manager under the STACM contract. Ms. Busher has a B.S and M.S. in Biology and an M.S, in Environmental, Safety and Health Management and has worked for Consolidated Safety Solutions (CSS) for over 17 years.

Jon Calomiris

Sotiria Science

As a Microbiologist of Sotiria Science, Jon Calomiris's current efforts include: 1) developing novel methods for effective disinfection of recalcitrant microbes; 2) treatment of complex samples to enhance PCR and nanopore sequencing; and 3) processing of environmental samples to improve quantification and disinfection of microbes associated with suspended sediment.

Previous efforts, as a Senior CWMD Advisor with U.S. Army Headquarters, included: 1) guidance to Army Senior Leadership to develop policy, plans, and operations for COVID-19 pandemic response; 2) advancing Army field capability with PCR and genetic sequencing; and 3) support for the U.S./Republic of Korea Biological Cooperative Threat Reduction Program. He received the Legionnaire Award (Chemical Corps Order of the Dragon) for serving as Biodefense Advisor during field exercises in the U.S., Republic of Korea, and U.K. He established a comprehensive biodefense course for CBRN specialists and authored journal articles on decon, detection, biosurveillance, and the anthrax spore.

Prior to the Army, as a PI of the Air Force Research Lab he directed research to develop systems for decon, sampling, and rapid identification of bioagents of water, surfaces, and air. Efforts included 1) self-decontaminating military fabric, 2) novel treatment to sensitize the anthrax spore to disinfectants, 3) disinfection of anthrax spores on drinking water pipe biofilm, and 4) prototype for rapid sampling and PCR identification of bioagents in complex samples.

Prior to DoD, he worked at NASA on the Viking Mission search for life on Mars. While a Ph. D. student at Johns Hopkins University, he also worked at Johns Hopkins Medical School investigating 1) autoimmune disease; 2) drug-resistant pathogens; and 3) *Legionella* bacteria of cooling towers and buildings. He received the Cornelius Kruse Award from Johns Hopkins University and the American Water Works Association Academic Achievement Award for his thesis research.



Jorge Camacho

DryDeon™ Defense

Bio not available.

Thomas Cellucci

JPI International

Dr. Tom Cellucci has been a senior executive in both the private and public sectors for over 35 years. He served as the U.S. Government's first-ever Chief Commercialization Officer in the Executive Branch, working with both President George W. Bush and President Barack Obama. He continues to assist President Biden's team and the Joint Chiefs of Staff regularly. Tom has authored or co-authored 30 scholarly books and over 426 high-tech business and peer-reviewed scientific articles. Cellucci earned a PhD in Physical Chemistry from the University of Pennsylvania (1984), an MBA from Rutgers University (1991) and a B.S. in Chemistry from Fordham University.

How-Yi Chang

U.S. Centers for Disease Control and Prevention

Dr. How-Yi Chang is a microbiologist who works in the Biological Rapid Response and Advanced Technology (BRRAT) Laboratory at the Centers for Disease Control and Prevention (CDC). Collaborating with subject matter experts, she contributes to research, design, and development of rapid and advanced technologies for use in the Laboratory Response Network. Her and her team's efforts ensure biothreat preparedness and support for public health responses. Dr. Chang holds a Ph.D. in Microbiology from the University of Georgia. She has more than 20 years of experience working with infectious disease pathogens. Before joining BRRAT Laboratory, Dr. Chang implemented whole-genome sequencing workflows in the CDC Bacterial Meningitis Laboratory. This implementation continues to help with outbreak investigations and inform public health responses. She looks forward to presenting findings from a multi-agency collaboration which are in efforts to further support biothreat preparedness.

Sang Chung

CSS, Inc.

Bio not available.

Matthew Collins

U.S. Army

Dr. Matthew Collins is originally from Maryland and graduated from the University of Maryland: College Park with a B.S. in chemistry (minor in Nanoscience & Technology) in 2014. Afterwards, he received his Ph.D. under Dr. Ayusman Sen at Penn State University in 2020 studying the interaction-driven transport of molecules and colloids in microfluidic devices. Afterwards, he started working at U.S. Army DEVCOM CBC for the Chemical Analysis & Physical Properties Branch. His current work involves studying the development of active matter/micromotor applications for the DoD.

Sean Collins

UK Health Security Agency

Sean Collins is a Biosafety Research Scientist in the Biosafety, Air and Water Microbiology group at the UK Health Security Agency. He has been part of the group for over 2 years. Sean has worked on many projects while working for the Biosafety group. This includes environmental microbiology, decontamination, aerobiology, water microbiology as well as virus work which includes helping carry out diagnostics in the mpox outbreak response. Sean was involved in investigating how different viruses such as mpox and SARS-CoV-2 persist as aerosols in the environment. Sean has also taken part in air sampler validation work to ensure when these samples are taken on sampling trips that the use of the equipment is optimised. Sean has also processed and analysed samples taken from different environments such as hospitals and workplaces



Tod Companion

U.S. Department of Homeland Security

Dr. Tod Companion is the Director of the Plum Island Animal Disease Center (PIADC). The lab and its staff of nearly 400 employees provide a host of high-impact, preparedness, and response capabilities, including vaccine research and development, diagnostics, training, and bioforensics. Prior to joining PIADC, Dr. Companion was Director of Program Management for the Department of Homeland Security (DHS) Science and Technology (S&T) Mission Capability Support, leading a large team to deliver capabilities to DHS components. Tod's 20 years of experience in civil service includes strategic thinking and planning, emergency management, science and technology policy, standards, public health, and spaceflight mission planning.

In the last few years, Tod led the revitalization of S&T program and project management and led the DHS research and development response to COVID-19, receiving the Secretary's Pandemic Heroism citation. Tod has also been recognized by DHS for his commitment to Joy in the Office, Service and Leadership. Tod joined DHS in 2005 after beginning federal service at NASA, following graduate work in immunology, biochemistry, and public health.

Stephen Michael Davis

Battelle

Dr. Stephen Davis has been a materials engineer at Battelle Memorial Institute for the last five years. He earned his Ph.D. from the New Mexico Institute of Mining and Technology in 2015 and completed his post-doctoral studies at the Los Alamos National Laboratory. His research interests include various aspects of explosives and combustion.

Jordan Deagan

U.S. Environmental Protection Agency

Jordan Deagan is a Software Development Contractor with Oak Ridge Associated Universities, currently working with the US EPA's ORD. Jordan's primary work has been assisting in the development of computer-based decision support tools to aid decision makers in responding to wide-area contamination incidents. He has also been developing virtual reality applications as a demonstration of their effectiveness as a training tool. Jordan has a B.A. in Computer Science from New College of Florida.

Steven Demers

Savannah River National Laboratory

Dr. Demers is a Staff Scientist in the nuclear effluent analysis group in the Global Security Directorate at Savannah River National Laboratory. He received his B.S. in physics from Duke University and then his M.S. and PhD in physics from Rice University. While Steven has been a part of many varied projects during his time at SRNL, the project he is going to be presenting is an LDRD that focused on the creation of a multiplexed DNA-biosensor for CBRN detection.

Nykki Marie Dunaway

U.S. Army

Nykki Dunaway currently serves as a Program Manager for the U.S. Army Chemical Biological Center (CBC) Chemical Biological Applications and Risk Reduction (CBARR) business unit. Nykki is currently the program manager on the project planning and execution for Pueblo Chemical Depot GPL igloo closure. Nykki also works on chemical agent contaminated waste management from ACWA sites and from Department of Homeland Security. She has also participated in the creation and implementation of pre-deployment briefs and other tasks for various projects in Australia. Before her role at CBARR, Nykki worked with water quality testing with industrial sites throughout Maryland. Nykki previously obtained a bachelor's degree in environmental science with an Aquatic Concentration from Colby-Sawyer College. She also obtained a master's degree in environmental management from the University of Maryland Global Campus.



Leigh Durden

Air Force Institute of Technology

Bio not available.

Evan Durnal

MRIGlobal

Evan Durnal is a Chemist and Program Manager at MRIGlobal with over 18 years of experience in the test and evaluation of COTS and emerging chemical detection and decontamination products. He is well versed on the development and validation of chemical collection devices and CBRNE-related detection and decontamination products. In addition to holding multiple hazardous chemical handling and response certifications, Mr. Durnal has experience in chemical agent handling, as well as the synthesis, detection, and decontamination of fentanyl and numerous analogs. In addition to multiple peer-reviewed publications and professional presentations, he has been recognized internationally in the Economist and has been the recipient of multiple MRIGlobal awards. In 2021, he was named one of Ingram's magazine's "40 Under 40" and in 2014, he co-founded and developed CBRNE Tech Index, an online CBRNE-related product database powered by MRIGlobal that now hosts over 6,000 users per month as an unbiased source for CBRNE product information. Mr. Durnal holds a B.S. in Molecular Bioscience from Baker University in Baldwin City, Kansas and an M.S. in Criminal Justice from the University of Central Missouri in Warrensburg, Missouri.

Kyle Eckhoff

Air Force Institute of Technology

Bio not available.

Janlyn Hope Eikenberg

U.S. Army

Ms. Janlyn Eikenberg is a chemist in the Decontamination Sciences Branch with over 13 years of experience. She holds a B.A. in chemistry and political science from St. Mary's College of Maryland and an M.S. in Environmental Engineering and Science from the Johns Hopkins University. She is responsible for the development of the mini-panel approach to increase sample through-put and efficiency in developmental and formulaic screening studies. She has done extensive work using the chemical resistance method (CARM) analysis for evaluation of mitigation technologies. Ms. Eikenberg is the author/co-author of over 17 publications, including 2 open literature, peer-reviewed articles.

Thomas Fowler

CSS Inc.

Thomas Fowler holds a B.S. in chemistry from the University of California, Berkeley. Thomas has worked in environmental testing laboratories for 36 years and has held positions from bench chemist to laboratory director.

LAST NAMES G-N

Lindsay Gabbert

U.S. Department of Homeland Security

Lindsay Gabbert is a Microbiologist with the Department of Homeland Security Science and Technology Directorate and has conducted research on transboundary animal disease (TAD) viruses at the Plum Island Animal Disease Center (PIADC) for over 13 years. She holds a graduate degree in Homeland Security with a specialization in Agricultural Biosecurity & Food Defense from Penn State University. As a subject matter expert for the design of applied biosecurity studies to assess viral inactivation, much of her recent work has focused on decontamination and disinfection of select agent TADs including African swine fever and foot-and-mouth-disease



virus by chemical and physical means. Prior to her work with DHS, Lindsay worked for the U.S. Centers for Disease Control and Prevention studying the pathogenesis of arthropod-borne zoonotic viruses.

James Garcia

CSS Inc.

James Garcia possesses a Master's Degree in Applied Natural Science (chemistry) and Bachelors in Chemistry and Biology. He currently serves as a Senior Chemist with U.S. EPA's PHILIS Program. He has worked for more than 15 years with analytical chemistry and methods development in the environmental, pharmaceutical, and oil and gas industries.

Ehsan Gazi

U.K. Defence Science and Technology Laboratory

Ehsan Gazi is a Principal Scientist in CBR Hazard Management at the UK's Defence Science and Technology Laboratory (Dstl) and is a chartered chemist with the Royal Society of Chemistry. He obtained his PhD in Chemistry from the University of Manchester in 2004, where he developed spectroscopic and mass spectrometric methods for subcellular imaging of tumour cells and classifying disease states of cancer tissue biopsies. Ehsan then took a 3-year post-doctoral scientist position at the Paterson Institute for Cancer Research (Manchester) where he further developed these techniques and in-vitro culture methods to understand the biomolecular role of lipids in tumorigenesis, publishing more than 20 peer-reviewed papers in these areas. In 2010, he joined the CBR Hazard Management team at Dstl, where he developed analytical methods and empirical models to determine the mass-transport of chemical warfare agents in porous materials. Since 2013, Ehsan has been driving the defence provision for logistically viable methods of decontaminating wide areas of Bacillus anthracis using agricultural approaches, firstly under a US DTRA funded programme and more recently as part of the UK's National Technical Advisory Group for Recovery. During this period, he has led a multidisciplinary team of agricultural spray equipment manufacturers, formulation scientists and microbiologists to develop capabilities for remediating wide open spaces to complex urban environments.

Willie Harper

Air Force Institute of Technology

Dr. Harper is an internationally-renowned expert in the area of water and sewage treatment processes. Dr. Harper's scholarly duties include research and teaching in the general area of environmental engineering and science and with a particular focus water quality. Before entering academia, Dr. Harper served in professional practice as a process engineer with CH2M Hill, Inc. Dr. Harper's research activity leverages traditional research approaches, such as mathematical modeling and laboratory-scale experimentation, augmented with modern tools from chemistry, microbiology, and computational chemistry.

Alisha Helm

Air Force Institute of Technology

Alisha Helm earned her BS in Environmental Engineering from Central State University. She completed her MS in Industrial Hygiene at the Air Force Institute of Technology in 2023.

Jennifer Hensley

Air Force Institute of Technology

Jennifer Hensley is currently a masters student at Wright State University studying Earth and Environmental Science, and a research assistant at the Air Force Institute of Technology working on a project researching the decontamination of PFAS species in water with activated carbon, and classifying non-hazardous surrogates to help with treatment processes. Ms. Hensley has a Bachelors of Science degree in Earth Science from Wright State University, and an Associates of Science degree in Geology from Sinclair Community College. She has worked on projects pertaining to nutrient pollution in Beavercreek and Little Beavercreek watershed with Wright State University and Little Miami Network for a Nine Elements Plan the EPA was implementing. She also worked as an Environmental Technician for Ardent Environmental Services helping with emergency responses such as



environmental oil spills, bird flu outbreaks, and other environmental emergency response situations as well as in a lab as a quality chemist with Cargill making sure food products were up to safety standards. Ms. Hensley will graduate in April 2024 and hopes to continue in the environmental field helping with preserving biodiversity, decontamination of water, soil, and air pollutants, and just enhancing and protecting everyone's quality of life.

Kent Hofacre

Battelle

Mr. Hofacre has been with Battelle for 36 years conducting research in the areas of aerosol science with an emphasis on applications to CBRNE defense and homeland security. Mr. Hofacre has a B.S. degree in Chemical Engineering from the University of Akron and a M.S. degree in Chemical Engineering from the Ohio State University. Mr. Hofacre has supported EPA in research areas of air monitoring technology assessments, air purification technology assessments, and most recently, biological agent sampling and analysis assessments.

Megan W. Howard

Battelle Memorial Institute

Dr. Meg Howard is a Senior Scientist with Battelle National Security. She started working on Coronaviruses in 2002 and has continued in global emerging infectious disease research ever since. Her experience is interdisciplinary, often crossing fields, and she has contributed to science for over 20 years in the areas of decontamination, field operations, emerging and zoonotic infectious disease, international biosafety and biosecurity biosurveillance, computational analysis and biomedical science. She has extensive experience leading research on Human and Agricultural biothreat agents, including Select Agents. She has worked across CENTCOM, EUCOM and PACOM supporting efforts for the EPA, DTRA, DHS, NIH and other organizations and has published >18 peer-reviewed papers, numerous reports and holds multiple patents.

Scott Hudson

U.S. Environmental Protection Agency

Scott has worked as a health physicist for the federal government since 1995, first with the Army and later joining EPA in 2005. Scott has experience in applied health physics in the medical, industrial and NBC arenas; he joined EPA when the National Decon Team was formed and has just recently joined ORD's Homeland Security and Materials Management division. Scott passed his certification exam in health physics in 2003 and is accredited by the American Academy of Health Physics. His work has focused on radiation safety, decontamination, and training.

Matthew Huyser

U.S. Environmental Protection Agency

Matthew J. Huyser has been an On-Scene Coordinator (OSC) with the U.S. EPA Region 4 since 2005 where he has served as the lead OSC or a supporting role to over 100 responses, assessments, removals and disaster response work. Matthew serves as the chair of the Science & Technology committee to the Region 4 Regional Response Team, and belongs to the Incremental Sampling Subcommittee, the EPA Data Management Team, and the Engineering Forum. Matthew is the regional point-of-contact for the VIPER communications system and provides training to response partners on its use and implementation. His focus in the EPA Region 4 Emergency Response, Removal and Prevention Branch has been on information and data organization to support field response and removal work. Matthew earned a B.S. in Biosystems Engineering from Clemson University in 2005 and has been licensed as Professional Engineer in the State of Georgia since 2011.

Michael D. Kaminski

Argonne National Laboratory

Michael Kaminski received his Ph.D. from the University of Illinois (USA) in Nuclear Engineering with an emphasis on radioactive waste management. He is a Senior Nuclear Chemical Engineer in the Strategic Security Sciences Division at Argonne National Laboratory and Adjunct Associate Professor in Nuclear, Plasma, and Radiological Engineering at the University of Illinois. His expertise includes nano-magnetic materials, magnetic



separations, spent fuel corrosion, nuclear waste fabrication, chemical separations techniques, radio-analytical methods, the environmental chemistry of nuclear materials, and mitigation and recovery methods for wide area releases of nuclear materials. In total, he has >70 published journal articles, 48 reports, >160 presentations, 35 inventions, and 8 patents garnering over 2690 citations in niche areas of study (h-index = 29).

Sarah Katoski

U.S. Army Combat Capabilities Development Command

Sarah Katoski is a Microbiologist working within the of the Research and Operations Directorate at the U.S. Army Combat Capabilities Development Command (DEVCOM) Chemical Biological Center (CBC). After completing a B.S in Biochemistry she earned her master's in advanced biotechnology with a concentration in Biodefense from Johns Hopkins University. Her graduate research focused on the rapid detection and identification systems of virus or bacteria that significantly contributed to bridging work from USAMRIID with CBC. As a member of the BioDefense Branch, she leverages her expertise with biological warfare agents, surrogates, and simulants to develop inactivation and decontamination methods. Currently, Sarah is working on a DTRA funded program to develop a decontaminant for critical areas.

Sean G. Kaufman

Safer Behaviors

Sean Kaufman is the CEO and Founding Partner of Safer Behaviors. Before becoming a CEO in 2011, Sean was a Senior Associate and Director of the Science and Safety Training Program at the Rollins School of Public Health at Emory University. He was responsible for training professionals working in BSL3 and BSL4 laboratories around the world.

Mohammad Khalid

University of North Carolina at Charlotte

Mohammad Khalid is a third year PhD student in department of civil and environmental engineering. His work focuses on sustainable method for the treatment of contaminants from water.

Nita Khanal

University of North Carolina at Charlotte

Nita Khanal is a Ph.D. candidate in the Department of Civil and Environmental Engineering at the University of North Carolina at Charlotte. Nita's research focuses on the detection of pathogen and antimicrobial resistance genes (ARGs) and method development.

During the peak of the pandemic, Nita had the opportunity to work as a graduate researcher at UNC Charlotte on a project called "Wastewater surveillance to detect Covid-19." Under her leadership, two projects were completed: "Detecting SARS-CoV-2 in indoor aerosol and highly touched surfaces in UNC Charlotte campus buildings" and "Investigation of cost-effective and efficient RNA extraction techniques for Covid-19 detection from wastewater."

Brittany Kiessling

U.S. Environmental Protection Agency

Brittany Kiessling is a Social Scientist in EPA's Center for Environmental Solutions and Emergency Response. She has worked at EPA for 7 years, conducting social science research related to community resilience as well as the social dynamics of environmental cleanup processes. Her research highlights the importance of community relationships, trust building, and culturally informed approaches.

Eric Languirand

U.S. Army

Dr. Eric Languirand has his BS from Towson University in Forensic Chemistry and Chemistry in 2012 and his Ph.D. from University of Maryland Baltimore County in Chemistry in 2017. Dr. Languirand is a Research Chemist



at the U.S. Army Combat Capabilities Development Command Chemical Biological Center in the Chemical Analysis and Physical Properties Branch. Current research revolves around explosive anomaly detection, vapor detection, and chemical surface detection. His interests are in applied spectroscopy and applied material science.

John Lau

DryDeon™ Defense

John Lau has 37 years of experience in optical imaging, network planning, and eLearning development. He has served as a consultant for corporations such as Pfizer, Merck, Johnson & Johnson, DoD and Avis Budget Group. His previous government experience includes managing multiple large-scale U.S. Army projects. John received his B.S. with Honors and M.S. in Physics from Stony Brook University.

Paul Lemieux

U.S. Environmental Protection Agency

Paul Lemieux is a research engineer in EPA's Office of Research and Development in the Homeland Security and Materials Management Division of the Center for Environmental Solutions and Emergency Response. Paul has a B.S. in Chemistry from Seattle University and a PhD in Chemical Engineering from the University of Utah. He has been with the EPA's Office of Research and Development for 36 years initially studying formation and control of pollutants from combustion systems, and since 2002 has been working on management of wastes from cleanup after chemical/ biological/ radiological incidents and foreign animal disease outbreaks and has been working on decision support tools to aid decision makers during wide-area contamination incidents. Recently he has been back working with his combustion research colleagues investigating thermal destruction of perfluoro alkyl substances (PFAS).

Keri Lestage

Aseptic Health LLC

Bio not available.

Bingchuan Liu

University of North Carolina at Charlotte

Dr. Bingchuan Liu is a postdoctoral researcher from the University of North Carolina at Charlotte. His research focus is quantification and removal of PFAS from various water matrices. He obtained his PhD in Environmental Engineering from the University of Connecticut in 2015.

April Luke

U.S. Environmental Protection Agency

April Luke began her career as a toxicologist for the USEPA in January 2011. For several years, she worked within the Integrated Risk Information System (IRIS), a human health assessment program that evaluates information on health effects that may result from exposure to chemicals found in the environment and develops important sources of toxicity information used by EPA, state and local health agencies, other federal agencies, and international health organizations. In November 2018, April had the opportunity to bring her toxicological expertise to the Office of Emergency Management (OEM). In her current position, she serves as a scientific/technical advisor in the areas of toxicology and risk assessment in support of the office's mission to provide policy, guidance, and direction for the Agency's emergency response program. April has a B.S. in microbiology and chemistry from Northern Arizona University, a MS in chemistry from Northern Arizona University, and a M.S. in toxicology from the University of North Carolina, Chapel Hill.

Gediminas Mainelis

Rutgers University

Dr. Gediminas Mainelis is a Professor in the Department of Environmental Sciences at Rutgers, the State University of New Jersey, USA. He has a Bachelor's degree in physics from Vilnius University, Lithuania, and a



Ph.D. in Environmental Health from the University of Cincinnati, Ohio, USA. He has over 20 years of experience in biological aerosol research and related topics. Dr. Mainelis has focused on developing and validating airborne agent sampling and control technologies, bioaerosol exposure assessment, and airborne microbiome. Over the past years, his research focused on microbial exposure and its mitigation, including measuring SARS-CoV-2 transmission indoors and developing and validating technologies to inactivate airborne microbial agents. His research efforts have resulted in over one hundred and twenty peer-reviewed publications and book chapters. His recent publications presented work on virus transmission and control indoors and its inactivation using antimicrobial air treatment. In addition, multiple papers from Dr. Mainelis's group have been included in most downloaded article lists of various peer-reviewed journals. His laboratory has been awarded several patents for developing novel bioaerosol collectors. Dr. Mainelis has served as Chair of the Bioaerosols and Health-Related Aerosol working groups of the American Association for Aerosol Research (AAAR). He is currently an editor (associate) of the Aerosol and Air Quality Research journal. Prof. Mainelis is a recipient of the Research Excellence Award from Rutgers University and the Lyman A. Ripperton Environmental Educator Award presented by the A&WMA.

Jessica Mason

U.S. Department of Homeland Security

Jessica works as a Research Scientist with SAIC and Department of Homeland Security S&T at Plum Island Animal Disease Center. Her work focuses on decontamination and disinfection of foreign animal diseases such as African swine fever and foot-and-mouth-disease virus. She attended SUNY New Paltz for her B.S. in cellular/molecular biology and Rutgers University for a M.S. in microbial biology.

Marissa Matsler

U.S. Environmental Protection Agency

Dr. Marissa Matsler is a Social Scientist at the U.S. EPA's Office of Research and Development. She studies infrastructure systems using an interdisciplinary social-ecological-technological systems (SETS) lens, with a particular focus on the resilience of water and disaster waste management systems. She has a PhD in Urban Studies and Planning from Portland State University, a Masters of Environmental Management from the Yale School of Forestry & Environmental Studies, and a B.S. in Marine Biology from Oregon State University.

Keely Maxwell

U.S. Environmental Protection Agency

Dr. Keely Maxwell is a General Anthropologist at EPA. She works in the Office of Research and Development's Center for Environmental Solutions and Emergency Response. An environmental anthropologist and ecologist by training, she first came to EPA as an American Association for the Advancement of Science & Technology Policy Fellow. Dr. Maxwell carries out applied social science research on community resilience, disaster debris removal, and building relationships and trust as part of community engagement during cleanup work after disasters.

Savannah Mays

Xavier University

Savannah Mays is a fourth-year student at Xavier University earning a degree in ECOS (Economics, Sustainability, and Society). Noteworthy projects that she has contributed to include the waste and recycling audit conducted at Xavier University. In addition, she is currently collaborating with a professor at the University of Cincinnati to establish an online c creative platform that will promote education and activism for a greener environment. In April 2023, Savannah accepted a position in the Office of Research and Development as an ORAU/NSSC student contractor. With a solid foundation in ECOS at Xavier University and current involvement in projects at Xavier University, University of Cincinnati, and U.S. EPA, she is committed to advancing sustainability awareness and advancement in better practices for a greener future.



Kate McCarthy-Barnett

U.S. Department of Homeland Security

Dr. Kate McCarthy-Barnett works for the U.S. Department of Homeland Security Federal Emergency Management Agency and has a specialized focus on CBRN decontamination response for at-risk casualties. Her current research interests and publications include the optimization of decontamination procedures during mass casualty chemical incidents. She was one two authors from the U.S. to contribute to the development of the U.S. Department of Health and Human Services Primary Response Incident Scene Management Guidance for Chemical Incidents and has presented her work at International and National conferences.

Katrina McConkey

U.S. Environmental Protection Agency

Katrina McConkey is a physical scientist with 20 years of experience in emergency response support and research. With expertise spanning from CBRN tactical and operational guidance to laboratory testing, field studies, and exercises, Katrina has provided subject matter expertise to several U.S. federal agencies, including the EPA, DoD, DHS, and law enforcement.

Katrina has supported EPA/DHS interagency programs and projects such as the Interagency Biological Restoration Demonstration (IBRD), Bio-Response Operational Testing and Evaluation (BOTE), Scientific Program on Reaerosolization & Exposure (SPORE), Underground Transport Restoration (UTR) Operational Technology Demonstration (OTD), and Analysis for Coastal Operational Resiliency (AnCOR). Her research has helped inform and guide policy, contributing to enhancing national preparedness for CBR incident response and remediation.

Princess Merenini

University of Wisconsin, Madison

Princess Merenini is a Graduate student in the Choi Lab at UW-Madison Chemistry Department. Her thesis focuses on developing electrochemical processes and electrode materials for energy storage and desalination systems.

Anne Mikelonis

U.S. Environmental Protection Agency

Anne Mikelonis is a researcher in the EPA's Office of Research and Development's Center for Environmental Solutions and Emergency Response, Homeland Security and Materials Management Division. Her current work focuses on the fate and transport of biological and radiological contaminants in urban areas. Previously, her research focused on physical/chemical water and wastewater treatment processes and nanoparticle synthesis and characterization. Anne holds a B.S. in civil engineering from Northwestern University (Evanston, Illinois), a M.Eng. in environmental engineering from the Massachusetts Institute of Technology (Cambridge), and a Ph.D. in environmental engineering from the University of Texas at Austin. She is also a registered professional engineer in the state of North Carolina.

Zach Minter

National Strategic Research Institute

Zach Minter is a Senior Scientist in NSRI's Special Projects Directorate. He has over 11 years of experience working in the field of Chemical and Biological Defense for DTRA and multiple other agencies within the DoD. At NSRI, he currently specializes in Hazard Mitigation testing as well as small- and large-scale bacterial spore production. Prior to joining NSRI he was a Biologist for the CBR Concepts & Experimentation Branch at Naval Surface Warfare Center Dahlgren Division. While in the CBR Concepts & Experimentation Branch Mr. Minter worked on many programs where his role involved bacterial spore production, test method development, and designing experiments. In this role he co-authored numerous peer reviewed publications, DTIC reports, ASTM standards, as well as awarded a patent.



Steve Mitchell

U.K. Defence Science & Technology Laboratory

Bio not available.

Justin Morales

U.S. Environmental Protection Agency

Justin Morales joined the EPA as an ORAU student contractor in February 2022. He is an experimental researcher with the Homeland Security Materials Management Division (HSMMD) at Research Triangle Park, NC. His main project is on the development of the mobile hot-zone decontamination system for chemical and biological airborne agents. He earned his bachelor's degree at Florida State University and master's degree at North Carolina State University, both in mechanical engineering. During his graduate studies, he took a year off from classes to intern at NASA Langley Research Center (Virginia).

Joseph Myers

U.S. Army

Joseph Myers is a chemist for the Decontamination Sciences Branch at DEVCOM Chemical Biological Center (CBC). He has more than 18 years of experience working with chemical agents which includes more than 13 years of U.S. government service. He is currently serving as principal investigator for multiple decontaminant process development efforts, including ClearDecon, for which he holds several U.S. Patents, and Chemical Hot Air Decontamination (CHAD). Mr. Myers brings a strong mechanical aptitude to his projects and is able to blend engineering and chemistry into his research. Mr. Myers earned an American Chemical Society (ACS) accredited B.S. in Chemistry from Towson University (Towson, MD) in 2005.

Valentine Nzengung

MuniRem Environmental LLC.

Dr. Nzengung is a Professor at the University of Georgia and the Founder, Chief Executive, and Chief Technology Officer of MuniRem Environmental, LLC. Dr. Nzengung has over 30 years of experience developing, implementing, and managing innovative green remediation technologies. He is a subject matter expert (SME) on weapons of mass destruction (WMDs) and the disposal of hazardous chemicals.

Dr. Nzengung is the inventor of the MuniRem® solution for rapid chemical neutralization of bulk explosives, munition constituents, and chemical warfare materiel (CWM) in different materials into non-hazardous end products. MuniRem® solutions are applied in demilitarization, routine decontamination of operational munitions manufacturing facilities, and remediation of energetics-contaminated sludge, soil, and groundwater.

Dr. Nzengung holds multiple patents for proprietary green and sustainable remediation technologies for explosives, perchlorate, nitrocellulose propellants, and chemical warfare agents. He is the author/co-author of over 150 publications, including peer-reviewed professional journal papers, book chapters, conference proceedings, and monographs.

LAST NAMES 0-Y

Daniel O'Donnell

Booz Allen Hamilton

Daniel O'Donnell is a cybersecurity expert that serves Booz Allen's government and commercial clients within the operational technology (OT) cybersecurity practice. Daniel has helped to protect key infrastructure sectors and industries with cybersecurity, supporting the U.S. Bureau of Reclamation (USBR) as well as Fortune 100 and Global 2000 companies. Prior to his current role, Daniel has several years of industrial control systems engineering and technology development experience within the oil and gas, energy, and manufacturing industries. Daniel has a B.S. in information sciences and technology, A.S. in Electrical Engineering Technology, and A.S. in Mechanical Engineering Technology from The Pennsylvania State University. Daniel is certified in



CompTIA Security+ (Plus), Amazon Web Services Certified Cloud Practitioner Certification (AWS CCP), and ICAgile Certified Professional (ICP).

Michael Omary

Clean Water Technologies Group Co.

Michael R S Omary is Founder and Director of R&D at APD Clean Water Technologies Group LLC. During the past 15 years, driven by "Necessary is Mother of All Inventions", embarked on hands-on research project to develop non-conventional, resilient, sustainable, renewable source, organic, noplugs, non-chemical nature-base treatment and disinfection engineered media solution for reclamation of storm-water and gray-water resources. Michael's research led to the development of a cutting-edge REDOX interactions solution result in restructuring and neutralization of dissolved sub-molecular toxic molecules. A zero brine, zero CO2 discharges treatment, powered by unlocking an average of 8,200 kWh of typical acre-foot (7 kWh/M3) of urban waste water toxins embedded electricity. Michael collaborated with CSU-Channel Islands and CSU-Fresno "Water Institute", to pilot test and demonstrate his innovative retrofit "Storm-Water Ions Filtration Treatment" (SWIFT) modules and biochemical catalysts media cold-reactor solution to treatment and disinfection of CSU-CI campus storm water; reclaimed sewer water; impaired river water; and electric generators cooling water, results achieving drinking water quality outputs at significantly lower O&M and capital investment cost.

Michael Omary is a licensed General Contractor in state of California, specialized in the design and construction of low carbon footprint, fireproof, earth-quack and flood resilient, public, institutional, commercial, high density and single family residential buildings.

Mr. Omary graduated from CSU-LA with major in Accounting, spent 12 years of his early carrier as a controller trainee, cost and budget controller, financial analyst, internal auditor, corporate controller and financial systems soft-ware designer.

Thomas Ortega

U.K. Department for Environment, Food and Rural Affairs

Mr. Mathieu Ortega is the UK Department for the Environment, Food, and Rural Affairs (Defra) Chemical, Biological, Radiological, and Nuclear (CBRN) Science Team's Chemical Hazard Scientific Officer. Mr. Ortega obtained a BSc from the University of Caen Normandy (France) after an HND in Chemistry. Mr. Ortega worked previously as an International Project Manager in the hazardous waste sector for VEOLIA. Mr. Ortega led several projects for the repacking, securitising and transporting diverse chemicals and waste from hostile and sensitive countries in West Africa and South America to Europe. Mr. Ortega joined DEFRA in 2021 and is leading different projects to increase the UK's capabilities for recovery after a CBRN incident.

Lukas Oudejans

U.S. Environmental Protection Agency

Dr. Lukas Oudejans is a Research Physical Scientist with the U.S. EPA Office of Research and Development's Center for Environmental Solutions and Emergency Response. Over the past 14 years, he has gained vast experience in homeland security programs related to research, development and evaluation of innovative technologies for the decontamination of materials contaminated with chemical or biological agents. He is a coauthor of EPA's Fentanyl Fact Sheet for U.S. EPA Federal On-Scene Coordinators who are providing technical advice to state and local responders who may encounter environmental contamination from the fentanyl class of synthetic opioids (including fentanyl analogs). Currently, he is leading multiple research efforts to assess decontamination options for fentanyl contaminated building materials and approaches for effective decontamination of contaminated PPE. Dr. Oudejans holds a Ph.D. in Experimental Physics from Radboud University, Nijmegen, The Netherlands (1994).



Joseph Padayhag

U.S. Center of Disease Control and Prevention

Joe Padayhag is a chemical engineer for the Centers for Disease Control and Prevention (CDC). He reviews plans for disposal of lethal chemical warfare agents from the U.S. military and provides recommendations for the protection of public and worker health. The chemicals include nerve and blister agents such as sarin, VX, sulfur mustard, and lewisite. The scope of plans includes disposal of primary and secondary waste; decontamination verification through monitoring; and emergency response. Mr. Padayhag has a Master's degree in Chemical Engineering and a Master's degree in Industrial Hygiene. He is also a Certified Industrial Hygienist and a Certified Safety Professional.

Ahmad Patooghy

North Carolina A&T University

Ahmad Patooghy, Senior Member, IEEE received his Ph.D. degree in Computer Engineering from Sharif University of Technology in 2011. Since August 2021, he has been with the Department of Computer Systems Technology at North Carolina Agricultural and Technical State University, leading the Intelligent Cyber Systems and Architectures Laboratory. He has published more than 100 peer-reviewed journal papers and conference proceedings. He has been a reviewer and PC member for various IEEE, ACM, Elsevier, and Springer journals and conferences. He has also served as a panelist for the National Science Foundation for reviewing grant proposals. His research interests include the security and reliability of machine learning applications and accelerators, hardware security in IoT and cyber-physical systems, and hardware design for machine learning acceleration. Dr. Patooghy is a Senior Member of the IEEE, IEEE Computer Society, and a Member of the ACM.

Thomas Pottage

UK Health Security Agency

Thomas Pottage is a Biosafety and Biorecovery Team Leader in the Biosafety, Air and Water Microbiology group at the UK Health Security Agency. He has been part of the group for over 18 years. Thomas has worked on a range of projects during his employment at UKHSA within the Biosafety, CBRN, decontamination/remediation fields, environmental microbiology, aerobiology and waste management. He has been involved in a number of projects investigating Biosafety and Biocontainment, through both practical and desk-based studies. Thomas has also led sampling missions investigating contamination of different environments with infectious agents, such as Bacillus anthracis, SARS-CoV-2 and mpox virus, whilst also investigating their environmental persistence, as aerosols within the laboratory and decontamination. Thomas was a Key Expert for EU CBRN CoE Project 67 where he is responsible for the overall planning and implementation of the Biological Waste Management activities under this project, such as country assessments, Best Practices, Train the Trainer programmes and sampling and remediation of sites contaminated with infectious pathogens. Thomas has worked within the CBRN fields for projects with the UK Home Office managing the production of the UK Recovery Handbook for Biological Incidents (UKRHBI), guiding the user through an evidence-based framework to identify the most appropriate recovery and waste management options after deliberate, accidental, or environmental contamination of a range of areas. Thomas is an experienced trainer in Biosafety and Biosecurity, and Good Microbiological Practice both in the UK and internationally, having delivered high containment working courses in the UK and Jordan. During the West Africa Ebola outbreak, he was team lead for the European Mobile Laboratory whilst in Liberia, working at high containment within a low resource infrastructure.

Vipin Rastogi

U.S. Environmental Protection Agency

Vipin Rastogi is a trained molecular microbiologist with over 25 years of experience in Chemical Biological Defense Research. Between 2002 and 2023, he Served as a Senior Research Biologist for the DEVCOM - Chemical Biological Center (formerly ECBC) at APG, MD. His expertise lies in "Disinfection and Decontamination of biological warfare agents and emerging viral threats". He joined EPA as a Senior Microbiologist in July 2023 with service location at Fort Meade, MD. Today, Dr Rastogi will present some of the work he completed on UVC disinfection of COVID19 viral surrogate, at APG, MD.



Ian Reilly

U.S. Environmental Protection Agency

lan Reilly is an Oak Ridge Institute for Science and Education (ORISE) Fellow with the U.S. Environmental Protection Agency in the Office of Research and Development, where his research involves studying and responding to issues at the intersection of natural resource planning, climate change, and equitable community resilience. He is a contributor on multiple noteworthy projects in the Integrated Climate Sciences Division, including the Equitable Resilience Builder (ERB) and the Adaptation Organon.

lan earned his Master of Public Health in 2022 from Yale School of Public Health, studying health policy and the impacts of climate change on public health. During this time Ian contributed as the lead author of Centering Equity in Climate Change Resilience Planning: Guidance for Connecticut Municipalities, an equity-focused guideline for community-level assessment of climate change vulnerability and solutions development published by the Yale Center for Environmental Justice in collaboration with Yale Center for Climate Change and Health.

lan is a motivated public health professional interested in researching integration and implementation of social science methodologies in natural resource management and community planning, particularly in the context of underserved communities most vulnerable to climate change threats.

Molly Rodgers

ERG

Molly Rodgers is a senior project manager with ERG with over 20 years of experience supporting projects for the U.S. EPA that address diverse topics covering environmental policy analysis, information technology, data management and visualization, and technical outreach. She holds a B.S in Environmental Science, Master's in Information Technology and is a Certified Scrum Master. Ms. Rodgers has dedicated her career to developing interactive tools that leverage cross-programmatic data to enhance data visualization and analysis in support of research and decision-making. She has provided continuous technical support to EPA's Homeland Security Research Program (HSRP) for the last 20 years, creating and supporting over a dozen decision support tools to help EPA response partners increase their preparedness and resiliency.

Peter Roumeliotis

U.S. Environmental Protection Agency

Peter is an Oak Ridge Institute for Science and Education (ORISE) Research Fellow at the Environmental Protection Agency's Office of Water, Water Infrastructure and Cyber Resilience Division. He provides strategic and communications support to the Water Laboratory Alliance, helping prepare water utilities and laboratories to respond to contamination incidents. Peter has a BA in Biology and the Science, Technology, and Society program from Vassar College and an MPH in Environmental Health Sciences from Yale University.

Lewis Rowles

Georgia Southern University

Lewis Stetson Rowles is currently an Assistant Professor in the Department of Civil Engineering and Construction at Georgia Southern University. His research interests are at the interface of technology development and sustainable design, with a focus on advancing clean water and safe sanitation for unserved and historically marginalized communities. He completed his postdoctoral studies at the University of Illinois at Urbana-Champaign. He holds a Ph.D. and M.S. in Environmental Engineering from the University of Texas at Austin along with a Graduate Portfolio Certificate in Applied Statistical Modeling. He also holds a B.S. in Civil Engineering from the University of South Carolina. He is the co-founder of an educational non-profit organization, Clean Water Science Network, which provides mentoring and research opportunities for students from underserved communities in Latin America.



Theodore Ruff

U.S. Centers for Disease Control and Prevention

Mr. Ruff is an environmental engineer, has worked on oversight of the U.S. Army's disposal of chemical weapons since 1999, and joined the CDC in 2005. His major areas of responsibility include transportation and disposal of primary and secondary waste, closure of chemical agent disposal facilities, and new disposal technologies. Prior to working on the chemical weapons disposal program, he was with the U.S. Army working on environmental restoration and air quality projects. Mr. Ruff holds a B.S. in Industrial Engineering from University of South Florida, a M.S. in Industrial Engineering from Texas A & M University, and a Master's in Environmental Engineering from Johns Hopkins University. He is a licensed Professional Environmental Engineer in Maryland and a Certified Safety Professional.

Matthew W. Seeger

Wayne State University

Matthew W. Seeger, Ph.D. is a Distinguished University Professor of Communication at Wayne. State University and Fellow of the International Communication Association. His research concerns crisis and emergency risk communication, agency responses and coordination, failure of complex systems and risk sensing and recognition.

Emily Senerth

Evidence-Based Toxicology Collaboration

Emily Senerth specializes in evidence synthesis and the integration of evidence into decision-making in environmental and occupational health. Her work is aimed at getting trustworthy data into the hands of policy-makers and helping them to account for all relevant factors when making decisions.

Shannon Serre

U.S. Environmental Protection Agency

Dr. Shannon Serre is with the EPA's Office of Emergency Management working in the CBRN Consequence Management Advisory Division. He is focused on the response and recovery from a chemical, biological, or radiological incident. He has been involved in several field scale projects including: the Bio-response Operational Testing and Evaluation (BOTE) project, Underground Transport Restoration (UTR) project, Operational Testing and Evaluation of Chemical Remediation Technologies (OTECRA) and most recently with the Analysis for Coastal Operational Resiliency (AnCOR) project. Shannon has a Ph.D. in Chemical Engineering from the University of Utah.

Jason Sherrieb

Avarint, LLC

Jason Sherrieb is a Senior Scientist at Avarint, LLC, with over 20 years of experience performing chemical agent RDT&E. Jason serves as a Program Manager and Principal Investigator on many RDT&E programs across a broad range of technical areas including material and textile permeation, material compatibility and desorption (decontaminability), vapor generation, detection, filtration, decontamination, and CBRN Survivability. Jason also leads Avarint's synthesis program and is responsible for synthesizing both traditional and non-traditional chemical agents for use on independent and non-DoD programs. Mr. Sherrieb serves as the Safety and Security Manager for Avarint's Provisioning Agreement with the U.S. Army, security liaison for the Department of Homeland Security CFATS compliance and coordinates all compliance-related activities for safety and security stipulated by relevant federal, state, and local agencies.



Ian Shortman

UK Defence Science and Technology Laboratory

lan Shortman is a Principal Scientist in CBR Hazard Management at the UK's Defence Science and Technology Laboratory (Dstl). He obtained his Master's Degree in Chemistry from University of Bristol, spending a year at DuPont in Wilmington, DE.

He has been in Dstl since 2012 and has been part of the response and recovery phases of UK homeland incidents. He is the Deputy Technical Authority for the UK's National Technical Advisory Group for CBR Recovery (NTAG-R), working in collaboration with the Department for Environment, Food and Rural Affairs (DEFRA), developing the UK's operational model for recovery.

Mitchel Simpler

JB&B

Bio not available.

Lisa Smith

U.S. Environmental Protection Agency

Lisa Smith serves as team lead of the Microbiology Laboratory Branch in the U.S. Environmental Protection Agency's Office of Pesticide Programs Biological and Economic Analysis Division. Lisa has been with EPA since 2016 and has been involved in developing efficacy methods for different types of bacteria, particularly those with significant public health implications such as *Candida auris* and *Legionella pneumophila*.

Jeffrey Szabo

U.S. Environmental Protection Agency

Jeff Szabo has a B.S. in Chemical Engineering and a M.S. and PhD in Environmental Engineering, all from the University of Cincinnati and is a registered Professional Engineer in Ohio. He has worked for the U.S. EPA for 18 years. He conducts and manages water security research projects at EPA's Test and Evaluation (T&E) facility and the Water Security Test Bed (WSTB) at the Idaho National Lab (INL). These projects include examining chemical, biological, and radiological contaminant persistence on drinking water and wastewater infrastructure and evaluation of decontamination and water treatment methods.

Mark Tucker

Artemis AG-Solutions LLC

Dr. Mark D. Tucker is a Civil Engineer with Artemis AG_SOLUTIONS, LLC specializing in disinfection of biological pathogens, decontamination of toxic chemicals, environmental remediation, water and wastewater treatment, and energy production technologies. Dr. Tucker recently retired from a 35-year career at Sandia National Laboratories in Albuquerque, NM where his research was focused on the development of innovative technologies for the decontamination of chemical and biological warfare agents and other highly toxic chemical and biological materials. He is a co-inventor of the Sandia Decontamination DF-100 and DF-200 formulations which are now manufactured by private companies and are widely used by first responders, the military, and for disinfection applications in challenging environments.

Dr. Tucker holds a Ph.D. in Civil Engineering from the University of New Mexico (1997), a M.S. in Civil Engineering from the University of New Mexico (1993), a M.S. in Mechanical Engineering from the University of Texas at Austin (1983) and a B.S. in Engineering from Purdue University (1980) and he is also a registered Professional Engineer in the State of New Mexico, USA.

Gaiven Varshney

Air Force Institute of Technology

Dr. Gaiven Varshney is a Research Assistant Professor of Nuclear Engineering, and the Co-chair of the Countering Weapons of Mass Destruction Graduate Certificate program at the Air Force Institute of Technology



(AFIT), Wright-Patterson AFB, OH. Prior joining AFIT, she worked as Research Scientist at Environmental Protection Agency (onsite contractor), Cincinnati, OH. She has a Ph.D. in Applied Chemistry from Zakir Hussain College of Engineering and Technology, AMU, India. Dr. Varshney's current research interests involve several nuclear forensic areas, including but not limited to, detection of radioactive elements, experimental separation and analysis of nuclear debris from different nuclear accidents and tests, characterization of actinide oxide-based semiconductors for solid state neutron detection, materials characterization, wastewater treatment, nutrient recovery, removal of emerging contaminants from soil, wastewater, and degradation of organic pollutants.

Mandeep Virdi

MIT Lincoln Lab

Mandeep Virdi has been at Lincoln Laboratory for 12 years and has significant experience in the fields of aerosol science, development and evaluation of sensing technologies and biodefense response and recovery. Mandeep has a B.S. degree in chemistry from Massachusetts Institute of Technology, and an M.S. degree in organic chemistry from Harvard University.

E. Christian Wells

University of South Florida

Dr. E. Christian Wells is Professor of Anthropology and Director of the Center for Brownfields Research and Redevelopment at the University of South Florida, where he served previously as the Founding Director of the Office of Sustainability and as Deputy Director of the School of Global Sustainability. He is an environmental anthropologist whose research investigates the drivers of WaSH (water, sanitation, and hygiene) insecurity, critical infrastructure transitions, and the socio-economic and environmental legacies of land use. He is a Fellow of the American Association for the Advancement of Science, an Interdisciplinary Research Leader with the Robert Wood Johnson Foundation, and past-President of the Florida Brownfields Association, the state's largest nonprofit advocacy organization dedicated to brownfields redevelopment and environmental justice.

Andrew J. Whelton

Purdue University

Dr. Whelton is a nationally recognized environmental engineer. Dr. Whelton has applied his unique skill set for 20 years to uncover and address problems at the interface of infrastructure materials, the environment, and public health. Topics pertaining to disaster response and recovery as well as construction site safety are just two of many topics his research has impacted. Dr. Whelton team's discoveries have positively changed how government agencies (EPA, CDC, NRC, NIOSH, NIST, Army, Navy), water utilities, nonprofit organizations, health departments, state legislatures, and building owners approach their responsibilities. Before joining Purdue University, he served on the faculty at the University of South Alabama and worked for the National Institute for Standards and Technology (NIST) Building Fire Research Laboratory, Virginia Tech, U.S. Army, and private engineering consulting firms. A hallmark of his work is direct engagement with communities at risk. His teams have established technical support centers and websites (www.PlumbingSafety.org; www.CIPPSafety.org) to make discoveries accessible to the public and communities of interest. He earned a B.S. in Civil Engineering, M.S. in Environmental Engineering, and Ph.D. in Civil Engineering from Virginia Tech.

Antony Williams

U.S. Environmental Protection Agency

Dr. Antony Williams joined the Center for Computational Toxicology and Exposure at U.S. EPA in May 2015 where he is a cheminformatician focused on the delivery of the center's data to the scientific community. He was the founder of ChemSpider, a database of >120 million chemicals with 100,000 users per day. He initiated the CompTox Chemicals Dashboard at EPA and now focuses his efforts on multiple proof-of-concept projects supporting distribution of chemistry-related data, modeling, building a database of analytical methods and mass spectra, and general analytical data management.



Stuart Willison

U.S. Environmental Protection Agency

Dr. Stuart Willison received his Ph.D. in chemistry from the University of Cincinnati. He joined EPA's Homeland Security and Materials Management Division (HSMMD) in 2008 as a research chemist. Stuart's research has focused on chemical sampling and method development to support remediation efforts. Stuart's sampling procedures and analytical methods have been published in numerous peer-reviewed journals, Agency reports, and incorporated into the Environmental Sampling and Analytical Methods (ESAM) Program for environmental remediation. The methods and procedures are intended to assess and support characterization of hazardous chemicals in important environmental media following contamination incidents. Dr. Willison also serves as a chemical co-lead for the ESAM Program and various inter- and intra-Agency workgroups as a chemical technical expert.

Judith Chui Ching Wong

Environmental Health Institute

Judith is presently a Director at the Environmental Health Institute, National Environment Agency, where she oversees the Microbiology and Molecular Epidemiology Division. She leads a multidisciplinary scientific team working on various One Health initiatives including surveillance and risk assessment of environmentally-transmitted and vector-borne diseases, and environmental monitoring of antimicrobial resistance. Judith was integral in setting-up Singapore's Wastewater-Based Epidemiology Programme, which expanded from a research initiative to a country-wide wastewater monitoring network. She is also involved in the development of various environmental mitigation and technical advisories for COVID-19 and other dangerous pathogens.

Judith currently serves as the Deputy Lead for the Environmental Transmission and Mitigation Co-op for the Programme for Research in Epidemic Preparedness and Response (PREPARE) under Singapore's Ministry of Health. She is also an ASEAN-Australian One Health Fellow with Murdoch University, Australia.

Joseph Wood

U.S. Environmental Protection Agency

Joe is a senior research engineer with U.S. EPA's Office of Research and Development, in the Homeland Security and Materials Management Division. He has been with the EPA since 1991 (previously doing air pollution engineering work) and has been conducting decontamination-related research since 2004. His research primarily involves the testing, evaluation, and development of technologies that can be used to decontaminate or sterilize surfaces and environmental matrices contaminated with biological agents such as *Bacillus anthracis* spores and biotoxins such as ricin. He also investigates related areas such as the fate/transport and sampling of bioagents and biotoxins; treatment and disposal of waste materials; and engineering aspects of decontamination. He is the primary author or co-author for over 35 peer-reviewed journal articles and over 90 U.S. EPA published reports. He holds a master's degree in environmental engineering from the University of Illinois (Urbana-Champaign) and is a licensed professional engineer. Joe is also HAZWOPER-certified.

Jeff Woodson

CURIS System

Jeff Woodson is a seasoned biodecontamination expert at CURIS, with a decade of contributions toward pioneering safer and more streamlined biodecontamination practices. He has provided consultation for high containment laboratories, public health laboratories, emergency preparedness departments and more, supporting them with pandemic preparedness, emergency response, decontamination validation, and good biosecurity practices.

Lifeng Yuan

U.S. Environmental Protection Agency

Dr. Lifeng Yuan is a researcher in watershed modeling. Dr. Yuan received a Ph.D. in Physical Geography from the Chengdu Institute of Mountain Hazards and Environment, Chinese Academy of Sciences (CAS), China in



2006. Dr. Yuan worked as an Associate Professor in China from 2006 to 2009 and came to the U.S. in 2013. From 2013 to 2017, Dr. Yuan worked as a Visiting Scholar at the National Soil Erosion Research Lab (NSERL), the United States Department of Agriculture - Agricultural Research Service (USDA-ARS), located at Purdue University, West Lafayette, IN. During 2017-2020, Dr. Yuan was a Senior Research Associate (National Research Council Postdoctoral fellow) and worked at the Center for Environmental Solutions and Emergency Response (CESER), National Risk Management Research Lab (EPA), Ada, OK. From October 2020 to July 2021, Dr. Yuan worked for the USDA-ARS Grazinglands Research Lab and the University of Oklahoma as a Postdoctoral Research Associate in El Reno, OK. Dr. Yuan rejoined the EPA CESER as a Physical Scientist in August, 2021.

