

Roundtable on Plastics

Committee

Jenna Jambeck

Co-Chair

Jenna Jambeck is the Georgia Athletic Association Distinguished Professor in Environmental Engineering, a 2022 MacArthur Fellow, and Founder of the Circularity Informatics Lab at the University of Georgia (UGA). She has been conducting research on solid waste issues for over 25 years with related projects on marine debris since 2001. She has conducted public environmental diplomacy as an International Informational Speaker for the U.S. Department of State since 2017. Jambeck is co-developer of the mobile app Marine Debris Tracker, a tool that continues to facilitate a growing global citizen science initiative with the documentation of over eight million litter items in our environment throughout the world. She is the host of a podcast called Aquathread on NPR and co-author of *Plastics*, a book in Massachusetts Institute of Technology Press's Essential Knowledge Series. She has won awards for her teaching and research in the College of Engineering and the UGA Creative Research Medal. She received a B.S., M.S., and Ph.D. in environmental engineering from the University of Florida. Jambeck served on the National Academies of Sciences, Engineering, and Medicine (NASEM) consensus committee United States Contributions to Global Ocean Plastic Waste and has written white papers and appendices for other NASEM reports on plastics and Marine Debris.

LaShanda T. Korley

Co-Chair

LaShanda T. J. Korley is a Distinguished Professor of Engineering in the Departments of Materials Science & Engineering and Chemical & Biomolecular Engineering at the University of Delaware (UD). Korley is the Director of the Energy Frontier Research Center – Center for Plastics Innovation funded by the Department of Energy and the Co-Director of the Materials Research Science and Engineering Center – UD Center for Hybrid, Active, and Responsive Materials funded by the National Science Foundation. She also is an Associate Editor for American Chemical Society (ACS) Macro Letters. Her innovative research program utilizes a bioeconomy framework or the nexus of biologically-inspired and sustainable principles for the molecular design, manufacture, and valorization of functional polymeric systems, including thermoplastics, networks, composites, and gels. Korley has received several distinguished honors, including 2023 (ACS Fellow, American Institute of Chemical Engineers Fellow, Fellow of the Royal Society Chemistry, ACS Division of Polymer Chemistry Fellow); 2022 (American Physical Society Fellow, ACS Polymeric Materials: Science and Engineering Division Fellow); 2021 Chemical and Engineering News Black Trailblazer; 2020 American Institute for Medical and Biological Engineering Fellow, 2012 Kavli Fellow, and was selected to the 2023 U.S. Science Envoy Cohort by the U.S. Department of State. She received a B.S. in both chemistry and engineering from Clark Atlanta University as well as a B.S. in chemical engineering from the Georgia Institute of Technology, and a Ph.D. in chemical engineering from the Program in Polymer Science and Technology at Massachusetts Institute of Technology. She served as a member of the U.S. National Committee for the International Union of Pure and Applied Chemistry and as a Reviewer for the National Academies of Sciences, Engineering, and Medicine report, "Frontiers of Materials Research: A Decadal Survey (2019).

Jessica Beal

Ex Officio Member

Jessica Beal is the manager of sustainability at the American Beverage Association (ABA). She drives industry engagement regarding plastics policy and oversees Every Bottle Back, ABA's recycling infrastructure initiative. Prior to working for ABA, Jessica was an Environmental Peace Corps Volunteer though her service ended abruptly due to the pandemic. She holds a Bachelor of Arts in International Studies from American University.

James Jeffrey Bezzo

Ex Officio Member

Jeff Bezzo is the Executive Director of plastic sustainability at SC Johnson. He is known for coaching and developing talent, strategic thinking and partnering cross-functionally in pursuit of business priorities. Bezzo has a long track record of finance leadership roles, most recently as a divisional Chief Financial Officer at SC Johnson. He currently serves as a Board Member and Board Treasurer of Circular Action Alliance. Bezzo received a Bachelor of Commerce degree at McMaster University, Canada and subsequently became a Certified Public Accountant and Certified Management Accountant.

Anthony Xavier Clerc

Ex Officio Member

Anthony Clerc is a Senior Director of Research and Development at Procter & Gamble (P&G). He is responsible for a broad range of sustainability technologies including the development of new raw materials and recycling technologies. Clerc has over 30 years of experience developing and scaling up new technologies in a broad range of industries including beauty care (skin creams), food (chocolate with Mars), baby care (diapers) and insecticide products. In 2023, he was appointed to his current role with focus on Sustainability to help P&G deliver several critical materials and recycling technologies to scale and to markets. He has received internal awards for Excellence in Delivery for technology start-ups in Europe, Russia, the Middle East and the United States. Clerc received a Diplome D'Ingenieur from Ecole Superieure de Physique et Chimie Industrielles de Paris (ESPCI Paris Tech) and M.S. in chemical engineering with Distinction from Imperial College London.

Barbara Gail McLean

Ex Officio Member

Barbara Gail McLean is the Director of the Chemical Sciences, Geosciences, and Biosciences (CSGB) Division and the Acting Team Lead for the Photochemistry and Biochemistry team in the Department of Energy's (DOE) Office of Basic Energy Sciences (BES). She previously served as the Program Manager for the BES Photosynthetic Systems program which supports fundamental research on natural photosynthesis. McLean has managed projects in all BES funding modalities – core program, Energy Frontier Research Centers, and the Fuels from Sunlight Energy Innovation Hub. Her professional career has been primarily dedicated to federal scientific program management and leadership. Her prior research includes biochemical and molecular biology studies of plant cytoskeletal proteins, Agrobacterium signaling mechanisms, and cell-to-cell transport. Prior to joining DOE in 2008, she was a National Program Leader in the U.S. Department of Agriculture's (USDA) Cooperative State Research, Education, and Extension Service. At USDA, McLean also served as the Acting Integrated Programs Director, which included oversight of the Small Business Innovation Research program. McLean is a Fellow of the American Association for the Advancement of Science. She received a Ph.D. in plant molecular genetics from the University of Georgia.

Erica Nuñez

Ex Officio Member

Erica Nuñez is the Program Officer for The Ocean Foundation's Plastics Initiative where she leads the management and strategic development of the organization's scientific and policy activities related to combating plastic pollution. She leads the organization's engagement within the United Nations' Environment Programme, including the current negotiations for an international legally binding instrument to end plastic pollution, the development of a Science Policy Panel on Chemicals, Waste and to Prevent Pollution, and the Basel Convention, among other international fora. She currently serves on the inaugural Board of Directors for the new Marine Debris Foundation, which was established by the U.S. federal government with the passage of the Save Our Seas 2.0 Act. She received her B.A.Sc. in paralegal studies from St. Petersburg College and her M.S. in paralegal studies from George Washington University.

Kerri Reyer

Ex Officio Member

Kerri Reyer is the Director of Plastics and Product Life Cycle, Corporate Strategic Planning at Exxon Mobil Corporation. In this position she is responsible for managing ExxonMobil's strategy, position, and advocacy activities for all aspects of the plastics life cycle. Reyer has been with ExxonMobil for 25 years and has held a wide variety of positions of increasing responsibility in fuels and chemicals business lines in the United States and Singapore, as well as several leadership roles in manufacturing operations. Before moving to her current role in Corporate Strategic Planning in 2023, Reyer was the Plant Manager of the Mont Belvieu, Texas Plastics Plant, ExxonMobil's largest plastics manufacturing facility. She received a B.S. in chemical engineering from Pennsylvania State University and an MBA from George Washington University.

Margaret Spring

Ex Officio Member

Margaret Spring is the Chief Conservation and Science Officer at the Monterey Bay Aquarium where she oversees conservation and science initiatives, including ocean policy, research, and related state, federal, and global programs. Before joining the aquarium in 2013, Spring served as Chief of Staff, and later Principal Deputy Under Secretary, at the U.S. National Oceanic and Atmospheric Administration (NOAA) from 2009 to 2013. Prior to her tenure at NOAA, she led The Nature Conservancy's California coastal and marine program. Spring served for eight years (1999-2007) as Senior and General Counsel to the U.S. Senate Committee on Commerce, Science, and Transportation where she advised members of Congress on ocean and climate issues and helped develop legislation on major science and policy topics. Spring previously served as a member of the Minderoo-Monaco Commission on Plastics and Human Health and currently serves on the board of the California Ocean Science Trust, a nonprofit organization tasked with providing rigorous science to guide decisions about the future of California's coast and ocean. She received her B.A. in classical archeology from Dartmouth College and her J.D. in Environment, Ocean from Duke University. Spring previously served as chair of the National Academies of Sciences, Engineering and Medicine's Committee on United States Contributions to Global Ocean Plastic Waste and the Ocean Studies Board.

Nancy Wallace

Ex Officio Member

Nancy Wallace is the Director of the National Oceanic and Atmospheric Administration's Marine Debris Program. The Marine Debris Program is the federal lead for researching, preventing, and reducing impacts of marine debris in the United States. Wallace is the Chair of the Interagency Marine Debris Coordinating Committee and the former Chair of the United Nations Global Partnership on Marine Litter. She has worked on ocean policy-related issues for more than 20 years. Her work includes resource conservation with the National Park Service, developing sustainable catch limits for fisheries and efforts to improve water quality in the Gulf of Mexico. Wallace received a B.S. in biology from Fairfield University and an M.A. in marine affairs and policy from University of Miami.

David Bem

Member

David S. Bem (NAE) is the Senior Vice President, Science and Technology and Chief Technology Officer at PPG, a leading global coatings company. He oversees innovation across a portfolio of key segments to drive adoption of new paint and coatings offerings in products ranging from automobiles and airplanes to electronics and home care goods. Prior to joining PPG in 2015, Bem led research and development at several prominent companies, including, Celanese Corporation, and Dow Chemical Advanced Materials. Additionally, he was a research and development chemist at UOP-Honeywell and holds nine U.S. patents. He is a member of the National Academy of Engineering and serves on the Board of Directors for Brady Corporation and the Pittsburgh Carnegie Science Center. He received a B.A. in chemistry from West Virginia University and a Ph.D. in inorganic chemistry from the Massachusetts Institute of Technology. Bem is former co-chair of the Board on Chemical Sciences and Technology of the National Academies of Sciences, Engineering, and Medicine.

Rajesh Buch

Member

Rajesh Buch is the Director of Circular Economy Practice and Business Development and a Professor of Practice at Arizona State University (ASU) Thunderbird School of Global Management. He co-creates and advances ethical circular economy knowledge and develops applied solutions, by building collaborative networks of ASU experts, funders and implementing partners. As a Professor of Practice he has created content and taught global entrepreneurship, sustainable business classes and ethical circular economy for professional and academic classes and workshops. His applied research focuses on transforming regional waste and recycling systems. He has also researched the effectiveness of ocean plastics extraction/removal technologies. Buch is a committee member on the State of Arizona Department of Environmental Quality Arizona Recycling Advisory Committee, commissioned to grant funds to advance recycling and circular economy in Arizona. He received a B.S. in mechanical engineering from the University of Illinois at Urbana-Champaign, an MBA from the ASU W.P. Carey School of Business, and a Ph.D. in sustainability from the ASU School of Sustainability.

Hilda Buss

Member

Hilda G. Buss is a managing engineer at Exponent, Inc. Buss' work includes product development, scale up, and failure analysis of polymer systems. She assists clients in all stages of product life from design with a focus on performance and sustainability to assessing in-field performance and carrying out failure analysis. With over a decade of experience in the polymer science field, her interests include using structure-property relationships of materials to address real-world problems. Prior to joining Exponent, Buss worked at Dow Chemical, developing new monomers for use in acrylic emulsion polymerization and enhancing methods for evaluating primary cleaning in the auto-dishwashing market, including for biodegradable dispersants. She is a voting member of the ASTM International Committee on Plastics and a member of the subcommittee on Recycled Plastics, as well as a member of the Society for Plastics Engineers. Buss is a licensed engineer in the state of California. She received a B.S. in chemical engineering from Massachusetts Institute of Technology and a Ph.D. in chemical engineering from University of California, Berkeley.

Maureen L. Cropper

Member

Maureen Cropper (NAS) is a Distinguished University Professor at the University of Maryland. Her research has focused on valuing environmental amenities (especially environmental health effects), on the discounting of future health benefits, and on the tradeoffs implicit in environmental regulations. Cropper is a Senior Fellow at Resources for the Future, a member of the Board of Directors at the National Bureau of Economic Research, and a member of the National Academy of Sciences. She has served as a Lead Economist in the World Bank's Research Department, chair of the U.S. Environmental Protection Agency (EPA) Science Advisory Board Environmental Economics Advisory Committee, and chair of the EPA Advisory Council on Clean Air Compliance Analysis. She received a B.A. in economics from Bryn Mawr College, and a Ph.D. in economics from Cornell University. In 2015-17 she co-chaired the National Academies of Sciences, Engineering, and Medicine Committee on Assessing Approaches to Updating the Social Cost of Carbon.

Roland Geyer

Member

Roland Geyer is a Professor at the Bren School of Environmental Science and Management, University of California, Santa Barbara. Prior to joining the Bren School he held research positions at the Centre for Environmental Strategy (University of Surrey, UK), the Centre for the Management of Environmental Resources (INSEAD, France), and was a consultant in financial risk management for AMS (now part of CGI) in Germany. In his research, Geyer uses the approaches and methods of industrial ecology, such as life cycle assessment and material flow analysis, to assess pollution prevention strategies based on reuse, recycling, and material and technology substitution. His work on plastics and the circular economy received awards from UK's Royal Statistical Society, the International Society for Industrial Ecology, the Alliance for Research on Corporate Sustainability, and the Society of Environmental Toxicology and Chemistry Europe. He received a graduate degree in physics from the Technical University Berlin, Germany, and a Ph.D. in engineering from the University of Surrey, UK.

Mridula Kapur

Member

Mridula (Babli) Kapur is a Principal Research Fellow at the Dow Chemical Company. During her 30+ year Dow career Kapur has significantly contributed to business growth through new technology and differentiated performance product development. She has led technology development from conception to commercialization, as exemplified by a novel, multifunctional quality control analyzer implemented globally in manufacturing plants. By combining catalyst-process-materials science expertise with market needs insight, she has designed polymers for flexible and rigid packaging, durable goods, pipe, wire and cable applications. She has 44 granted U.S. patents. Kapur was appointed to lead the Dow Packaging and Specialty Plastics R&D Safer Materials Platform encompassing substances of concern, microplastics, and recycling stewardship. Kapur is a Fellow of the Society of Plastics Engineers and a member of the Texas A&M Materials Science and Engineering Department industrial advisory board. Recent external recognition of her work includes a 2022 R&D 100 Award, Gold Edison award and the American Chemical Society Heroes of Chemistry award. She received a Ph.D. in physical chemistry from Texas A&M University, College Station.

Rachel Karasik

Member

Rachel Karasik is a Research Scientist with the Norwegian Institute for Water Research (NIVA), in the section on International Environment and Development. Karasik previously worked for Duke University's Nicholas Institute for Energy, Environment & Sustainability, and held a one-year appointment with the White House Council on Environmental Quality. Her research interests include broadly assessing the global environmental policy landscape, with a focus on identifying gaps in current approaches, and measuring social and economic outcomes of policy implementation. Karasik has developed expertise on both the global plastics policy landscape, by creating the Plastics Policy Inventory, as well as in federal decision-making in the United States as it relates to plastic. Recently, her plastic research included assessing environmental justice considerations across the lifecycle and in plastics policy, developing a tool to measure the socioeconomic and environmental impact of local interventions to address plastic, and diving into governance of agricultural plastics and chemical additives in plastic. She received a B.S. from New York University in environmental biology and MEM with a concentration on coastal environmental management from Duke University.

Andrew Kenefick

Member

Andrew Kenefick is retired from practicing environmental law across a broad range of regulatory programs (water, air, resources, contaminated sites, land use), with a focus on solid and hazardous waste management. He previously served as Senior Legal Counsel for Waste Management, Inc. and handled environmental compliance, permitting, litigation, and regulatory affairs for its solid waste, hazardous waste, and recycling facilities and operations in the western United States. Kenefick has extensive experience with managing plastic waste across state boundaries and among different local, state, and federal programs. Kenefick received his law degree from the University of Michigan Law School and recently received his Master of Marine Affairs degree from the University of Washington.

Jennifer Lynch

Member

Jennifer M. (Keller) Lynch is a Research Biologist with the National Institute of Standards and Technology (NIST). In 2019 she founded the Center for Marine Debris Research, a joint institute of NIST and Hawaii Pacific University (HPU). Lynch holds affiliate faculty positions at HPU and University of Hawaii. Her current research focuses on optimizing methods to quantify and chemically characterize plastic pollution. Her students apply the methods to answer questions about plastic debris quantities, sources, transport, fate, impacts, and reuse of all plastic pollution size classes from nanoplastics to megaplastics. Today her work is a part of the Circular Economy Program at the NIST, a Sea Grant Marine Debris Challenge project, and a National Oceanic and Atmospheric Administration Marine Debris Program removal project, among other collaborative projects. She received a Ph.D. in marine environmental toxicology from Duke University.

Alvine Mehinto

Member

Alvine Mehinto is the head of the Toxicology Department at the Southern California Coastal Water Research Project (SCCWRP). She has previously held Principal Scientist in Ecotoxicology and Molecular Toxicologist positions at SCCWRP. She oversees research on the development and application of effects-based methods to improve chemical and water quality assessment. Mehinto also works on the ecological risk assessment of multiple stressors including microplastics and cyanotoxins on key indicator species. She received a B.S. in marine biology from University of Portsmouth (UK), and Ph.D. in biological sciences from University of Exeter (UK).

Rachel Meidl

Member

Rachel A. Meidl is a distinguished fellow in energy and sustainability at Rice University's Baker Institute for Public Policy. Her research focuses on sustainability; circular economy; life cycle management; environmental justice; safety and environmental regulations of the treatment, storage, disposal, and transportation of hazardous materials and wastes; and understanding the environmental, economic, and social impacts across energy supply chains. Meidl was previously appointed as Deputy Associate Administrator of the Pipeline and Hazardous Materials Safety Administration in Washington, D.C. Prior to her service in government, she was Director of Regulatory & Technical Affairs at American Chemistry Council. She has over 27 years of regulatory, public policy, advocacy and technical experience in industry, academia, government, finance, and international relations. Meidl is a Certified Hazardous Materials Manager, received a B.S. in conservation biology and zoology & animal physiology from the University of Wisconsin-Madison, a M.S. in environmental policy and management, a M.Ed. in applied science and technology with certifications in chemistry and physics, and a Ph.D. in law and public policy from Northeastern University.

Nabil Nasr

Member

Nabil Nasr is the associate provost for academic affairs and founding director of Rochester Institute of Technology's (RIT) Golisano Institute for Sustainability (GIS). Nasr is also the founding CEO of the REMADE Institute. He launched RIT's Center for Remanufacturing and Resource Recovery (C3R®). His research focuses on remanufacturing, circular economy, life-cycle engineering, clean production, and sustainable product development. He is a member of the International Resource Panel of the U.N. Environment Programme (UNEP) and serves on the board of trustees for the Ellen MacArthur Foundation. He has served as a US expert and expert delegate in international forums such as the Asia Pacific Economic Cooperation, United Nations, World Trade Organization, and the Organization for Economic Co-operation and Development (OECD). He received a M.S. in Industrial and Systems Engineering from Rutgers University, a M. Eng. in Industrial Engineering from Pennsylvania State University, and a Ph.D. in Industrial and Manufacturing Engineering from Rutgers University.

Veena Singla

Member

Veena Singla is an Adjunct Assistant Professor and Associate Director with the Agents of Change in Environmental Justice Program at Columbia University. She was previously a Senior Scientist with the Natural Resources Defense Council and an Associate Director with the Program on Reproductive Health and the Environment at University of California, San Francisco. Her research investigates how toxic chemicals and pollution related to systems of materials use, production, and disposal, including plastics, threaten the health of impacted communities, especially those experiencing environmental injustices. Her work seeks to address health disparities linked to harmful environmental exposures using an interdisciplinary approach incorporating environmental health, exposure science, public health, and policy expertise. Singla focuses on advancing comprehensive solutions in collaboration with communities that center public health, racial and health equity. She received a B.S. from the University of California, Berkeley in chemistry and a Ph.D. in cell biology from the University of California, San Francisco.

David B. Spencer

Member

David Spencer (NAE) is the Founder, President and CEO of wTe Corporation, focused exclusively on WTE & metals and plastics recycling. His research also includes technologies and patents for automated recycling of MSW. Spencer developed and patented metals and plastics recycling technologies using state of the art mining technologies and high-speed optoelectronic X-Ray & LIBS sortation technologies. He is a member of Tau Beta Pi; Sigma Xi; Seminal Inventor of Semi-solid Casting (Rheocasting and Thixocasting), an ASM International-Honorary Member, President of ASM Materials Education Foundation, a member of the National Academy of Engineering, and was appointed to National Academies of Sciences, Engineering, and Medicine Government-University-Industry Research Roundtable Executive Committee. Spencer is on the National Science Foundation (NSF) Small Business Innovation Research/Small Business Technology Transfer Advisory Committee (20 years), NSF Engineering Advisory Committee (6 years), and NSF Business & Operations Advisory Committee (6 years). He received a B.S. in metallurgical engineering from Lafayette College and a Ph.D. in material science and engineering from Massachusetts Institute of Technology.

Mary Ellen Ternes

Member

Mary Ellen Ternes is a senior environmental attorney with focused interdisciplinary practice combining science and law and partner at Earth & Water Law, LLC. She applied chemical engineering to U.S. Environmental Protection Agency and industry work in environmental regulatory policy development, compliance and enforcement, pollutant mitigation and remediation and utilizes this prior experience within the scope of her environmental regulatory and litigation practice. Ternes is a leader and frequent contributor regarding the law and science of plastic waste and pollution mitigation with: the Global Council for Science and Environment (Fellow and delegate to UN Environmental Programme Intergovernmental Negotiation Committee); the American Institute of Chemical Engineers (Fellow, founder and past president of the Public Affairs and Information Committee and Chemical Engineering and the Law Forum; frequent contributor to "Chemical Engineering Progress"; speaker Plastic Waste Forum); American College of Environmental Lawyers (Fellow, past President); the National Academies of Sciences, Engineering and Medicine (2021 consensus paper "Reckoning with the United States Contribution to Global Ocean Plastic Waste"), and the American Bar Association Section of Environment, Energy and Resources (lead editor of the "Natural Resources and Environment" Spring 2024 Plastics Issue). Ternes received a B.E. in chemical engineering from Vanderbilt University, and a J.D. from University of Arkansas at Little Rock School of Law.

Imari Walker-Franklin

Member

Imari Walker-Franklin is a Research Scientist at RTI International, actively contributing to research aimed at assessing human and environmental exposure to potentially harmful substances. Walker-Franklin's research interests span across critical areas such as plastic pollution, microplastics, emerging contaminants, analytical chemistry, and environmental justice. One of her key projects involves investigating the release and impact of microplastics and microplastic-associated chemicals within simulated human fluids and tissues. Previous research focused on comprehending the release, transformation, and effects of polymer-associated chemicals in aquatic environments. Passionate about science communication and outreach, Walker-Franklin has established a dedicated YouTube channel focused on plastic pollution, engaged in podcasts, offered scientific expertise for journal articles, and actively participated in public speaking events tailored for general audiences. She received a B.S in marine science from the University of California, Berkeley and a Ph.D. in civil and environmental engineering from Duke University.

Justin Whitfield

Member

Justin Whitfield is the Chief Operating Officer and Co-Founder of Technology Greenhouse, LLC. He previously held positions as the Senior Director of Chemistry at Zymergen as well as Vice President of Material Sciences Research and Development at the Warner Babcock Institute for Green Chemistry. Throughout his journey, he's had the opportunity to collaborate with 100+ public and private-sector companies, steering large-scale research projects, and developing next-generation products. His research focus is addressing material science challenges and empowering technical teams, especially during times of economic uncertainty. As a key contributor to the development of over 60 patents across 14 patent families, Whitfield has facilitated large-scale pilot production trials for green and sustainable material technologies. From overseeing lab-scale demonstrations to successful industrial trials, he's always maintained a lens of commercial feasibility, to demonstrate that environmentally friendly solutions can also be financially viable. Whitfield received a B.S. in biology from Bridgewater State University and a Ph.D. in green chemistry from the University of Massachusetts.

Caroline Bell

Staff Officer

Liana Vaccari

Staff Officer