

Chemical Sciences Roundtable

Committee

Michael R. Berman

Ex Officio Member

Michael R. Berman is a Program Officer at the Air Force Office of Scientific Research (AFOSR) where he leads the Molecular Dynamics and Theoretical Chemistry Program and the Organic Materials Chemistry Program. Dr. Berman joined AFOSR in 1991. He manages a cutting-edge basic research program in experimental physical chemistry, nanoscience, and theoretical chemistry that seeks to understand, predict and control chemical reactivity and energy transfer, as well as research in organic materials and synthesis. These programs emphasize emerging and cross-disciplinary areas including efforts in areas such as catalysis, plasmonics, superatom chemistry, energy transfer, space-related chemistry, and propellants. He frequently participates in government review panels, advisory and editorial boards, and has been active as symposium organizer, session chair and presenter at national and international meetings. Dr. Berman has more than three decades of experience in scientific research and management in academia, industry and government. He is the author of over 40 published scientific papers and book chapters, and has been elected a fellow of the American Chemical Society, American Physical Society, American Association for the Advancement of Science, and the Air Force Research Laboratory. He has also received the Arthur S. Flemming Award and the Air Force Basic Research Award, and served as a Counselor for the Physical Chemistry Division of the American Chemical Society for nine years. Dr. Berman received his Ph. D. in Physical Chemistry from the University of California, Berkeley in 1981.

Victor Bohnert

Ex Officio Member

Victor Bohnert has worked with non-profits, foundations and associations for more than 25 years. His career in this field began while working with Pew Charitable Trust funded organization in Washington, DC, on several global initiatives including the formation of the UN Foundation. After leaving DC for Chicago, Victor spent 15 years working with professional and trade associations. He has become a recognized leader in turn-around strategies, Board and leader development, association mergers and start-up management. Prior to working with not-for-profits and association, Victor worked as a campaign and government affairs strategist, working on several issue-based campaigns, as well as campaigns for state/local candidates, US Congress, US Senate and US Presidency.

Judith N. Burstyn

Ex Officio Member

Judith Burstyn is Director of the Division of Chemistry at NSF. Prior to joining NSF in January 2025, Judith was Professor of Chemistry at the University of Wisconsin-Madison and the Irving Shain Chair in Chemistry and department chair from 2017 to 2021. Her service includes AAAS Chemistry Section steering group member, chair of the Gordon Research Conference on the Chemistry and Biology of Tetrapyrroles, and Editorial Advisory Board member for Inorganic Chemistry. Her expertise is in biological inorganic chemistry, with research themes in gas-sensing metalloproteins and metal-mediated hydrolysis. Recent work focuses on heme-mediated allosteric regulation in carbon monoxide sensing transcription factors, and on efficient strategies for replacing heme with alternative metalloporphyrins for biocatalytic applications. She was recognized as a Fellow of the American Association for the Advancement of Science and as an Alfred P. Sloan Foundation Fellow. She received her B.A. from Cornell University and her Ph.D. from University of California, Los Angeles. Her post-doctoral training was in Pharmacology at the UCLA School of Medicine, and in chemistry at Massachusetts Institute of Technology.

Carlos Alberto Gonzalez

Ex Officio Member

Dr. Carlos Gonzalez is the Senior Strategic Advisor on Material Data, Machine Learning, and AI in the Material Measurement Laboratory, at the National Institute of Standards and Technology (NIST). He previously served as the Chief of the Chemical Sciences Division for over 15 years until February 2026. Prior to that tenure, he held the position of Chief of the Chemical and Biochemical Reference Data Division and was the founding Director of NIST's Center for Theoretical and Computational Nanosciences. His primary research expertise focuses on the development and implementation of modern ab initio quantum chemical methodologies, particularly their application to conceptual DFT, chemical Information Theory, chemical reactivity, nanotechnology, materials at the nano-scale, and data-driven AI for chemistry. A co-author of the Gaussian suite of programs, Dr. Gonzalez has published over 100 peer-reviewed papers in quantum chemistry. His professional honors include the 2024 Allen V. Astin Award, the 2013 HENAAC Professional Achievement Level II Award and the 2005 Department of Commerce Bronze Medal. He is an active member of the American Chemical Society and the American Physical Society. Dr. Gonzalez earned his Ph.D. in Theoretical Chemistry from Wayne State University in 1990. He subsequently completed a postdoctoral fellowship at Carnegie Mellon University under the supervision of Nobel Laureate Prof. John A. Pople.

Barbara Gail McLean

Ex Officio Member

Barbara Gail McLean, PhD, is the Director of the Chemical Sciences, Geosciences and Biosciences Division in the Office of Basic Energy Sciences, Office of Science, U.S. Department of Energy (DOE). Dr. McLean joined the Chemical Sciences, Geosciences, and Biosciences Division in November 2008 as a program manager for Photosynthetic Systems and later became the team lead for Photochemistry and Biochemistry. Prior to joining DOE, she was a National Program Leader for Plant Biology in the Competitive Programs Unit of the Cooperative State Research, Education, and Extension Service (now the National Institute of Food and Agriculture), United States Department of Agriculture (USDA). She directed and provided leadership for four competitive grant programs while at USDA, three of which were in the National Research Initiative competitive grants program: Plant Environmental Stress, Plant Biochemistry, Plant Breeding and Education, and Biotechnology Risk Assessment. She also served on the Interagency Metabolic Engineering Working Group and as an Acting Integrated Programs Director for the Competitive Programs unit. Dr. McLean has broad research experience in plant biochemistry and molecular and cell biology, conducting research in the Biochemistry Department at the University of Maryland-Baltimore Medical School and in the Plant and Microbial Biology Department at the University of California, Berkeley. She is a Fellow of the American Association for the Advancement of Science (AAAS).

William L. Olbricht

Ex Officio Member

William Olbricht is the Deputy Division Director (currently Acting Division Director) for the Division of Chemical, Bioengineering, Environmental and Transport Systems (CBET) in the Directorate for Engineering at the U.S. National Science Foundation (NSF). Prior to joining NSF, he was a faculty member at Cornell University with appointments in the Chemical and Biomolecular Engineering and Biomedical Engineering departments. He served as chair of the Chemical and Biomolecular Engineering department and interim chair of the Biomedical Engineering department. Among his activities at NSF, Dr. Olbricht co-founded a new partnership between NSF and the Center for the Advancement of Science in Space that provides researchers with opportunities to use facilities on board the International Space Station for sustained microgravity experiments that benefit life on Earth. Dr. Olbricht also led the NSF-wide program in Future Manufacturing. He is recipient of an NSF Directors Group Award, and at Cornell was a three-time recipient of teaching awards in Engineering. His research focuses on application of multiphase fluid dynamics in chemical and biological systems. Dr. Olbricht received a B.S. from Stanford University and a Ph.D. from the California Institute of Technology, both in chemical engineering.

Ashutosh Rao

Ex Officio Member

Ashutosh Rao, PhD, is the Chief of the Laboratory of Applied Biochemistry, and a Supervisory Drug Quality Reviewer in the Division of Biotechnology Review and Research III at the U.S. Food and Drug Administration (FDA). Prior to joining the FDA, Dr. Rao completed post-doctoral fellowships in biochemistry and molecular pharmacology at the National Cancer Institute in Bethesda, Maryland. He is an SBRBPAS Expert appointed under the HHS Senior Biomedical Research and Product Assessment Service authority. He is currently responsible for the regulation of therapeutic proteins such as enzymes, monoclonal antibodies, and cytokines, and serves as an expert reviewer for biotechnology drug quality and biomarkers related to oncology or neuromuscular indications. He also serves to develop regulatory policy on the drug stability, analytical method development, novel excipients, reference standards, and on surrogate markers for accelerated approval. Dr. Rao also directs a laboratory research program that investigates the structure-activity relationship between protein oxidation and drug quality, safety and efficacy. He has authored several peer-reviewed research articles and FDA regulatory policy guidance and serves on the editorial board for Cancer Research. Dr. Rao has been recognized by awards from the American Association for Cancer Research, Food and Drug Administration, and the National Institutes of Health. He holds a PhD in Molecular Pharmacology from the University of Texas M.D. Anderson Cancer Center in Houston, TX.

Ian Rowe

Ex Officio Member

Ian Rowe, PhD, is a Technology Manager with the U.S. Department of Energy's Bioenergy Technologies Office (BETO) within the Office of Energy Efficiency and Renewable Energy (EERE). In addition to his time with BETO, he served as the Chief of Staff to the Deputy Assistant Secretary for Sustainable Transportation in EERE. At the Department of Energy (DOE), Dr. Rowe is responsible for a diverse applied R&D portfolio on the decarbonization of fuels and chemicals. Specifically, he manages projects in CO₂ utilization, biochemical conversion of biomass, and carbon management. As Chief of Staff, Dr. Rowe worked with DOE leadership to help the Vehicle, Hydrogen and Bioenergy programs execute their mission and engage with Congress and other stakeholders. Notably, he was a part of the team developing an interagency strategy for the decarbonization of the transportation sector. In 2014, Dr. Rowe was the recipient of a Science, Technology, Engineering, and Mathematics Presidential Management Fellowship (PMF). Dr. Rowe holds a PhD in Biochemistry from the University of Maryland.

Patrick C. Still

Ex Officio Member

Patrick Still, PhD, is a program director in the Basic and Mechanistic Research (BMR) Branch of the Division of Extramural Research at the National Center for Complementary and Integrative Health (NCCIH). He directs a portfolio with a strong emphasis on botanical and other natural product therapeutics development. Dr. Still is currently the program lead of the National Institutes of Health (NIH)-wide Natural Products and Pain working group. This activity intersects with NIH-wide projects and organizations, including the Helping to End Addiction Long-term® Initiative, or NIH HEAL Initiative®. Dr. Still came to the BMR Branch from the Office of Scientific Review at NCCIH where he worked as a scientific review officer providing policy implementation and coordination for the planning and execution of initial scientific and technical review conducted within the Institute.

Adelina Voutchkova-Kostal

Ex Officio Member

Adelina Voutchkova-Kostal, PhD, is the Director of Sustainable Development at the American Chemical Society. She joined ACS in June 2023 from an academic career at the George Washington University as an Associate Professor in Chemistry with a research focus on development of methods that facilitate circular economies through catalysis and designer solvents. Dr. Voutchkova-Kostal's research has been recognized by a GWU Young Investigator Award, an NSF CAREER award and Rising Star award by the ACS Green Chemistry and Engineering Conference. In addition to research, she has been committed to green chemistry education, serving as co-Director of the MS program in Environmental and Green Chemistry at GWU, and as curriculum developer for green chemistry coursework. She is also Principal of Designing Out Toxicity LLC, a service provider of predictive toxicology tools for hazard evaluation and design of functional and safer commercial chemicals. Prior to starting her independent career, she served as Research Associate at the Yale Center for Green Chemistry and Green Engineering. She holds a PhD in Organometallic Chemistry from Yale University and a BA in Chemistry from Middlebury College.

Milad Abolhasani

Member

Milad Abolhasani, PhD, is the ALCOA Professor and a University Faculty Scholar in the Department of Chemical and Biomolecular Engineering at North Carolina State University (NCSU). He also serves as Director of Accelerated Technologies under NCSU's Integrative Sciences Initiative. Prior to joining NCSU, Dr. Abolhasani was an NSERC Postdoctoral Fellow in the Department of Chemical Engineering at the Massachusetts Institute of Technology (2014–2016). At NCSU, Dr. Abolhasani leads a multidisciplinary research program centered on the creation of advanced flow chemistry platforms to enable accelerated development and manufacturing of high-value functional materials and molecules. His lab integrates automated reactor technologies with real-time characterization and machine learning algorithms to establish "Self-Driving Labs" for closed-loop optimization and discovery. Dr. Abolhasani has been recognized with numerous honors, including the NSF CAREER Award, the AIChE Colburn Award, the AIChE 35 Under 35 distinction, the Dreyfus Award for Machine Learning in the Chemical Sciences and Engineering, the AIChE CRE Early Career Investigator Award, a Scialog Fellowship, the AIChE NSEF Young Investigator Award, selection as an I&EC Research "Class of Influential Researchers," and multiple Emerging Investigator distinctions from journals such as Nanoscale, Lab on a Chip, Digital Discovery, and Reaction Chemistry and Engineering. Dr. Abolhasani received his Ph.D. in Mechanical Engineering from the University of Toronto, an M.S. in Mechanical Engineering from the University of British Columbia, and a B.S. in Mechanical Engineering from Sharif University of Technology.

Mahdieh Aghazadeh

Member

Mahdieh Aghazadeh, PhD, is a Senior Principal Process Engineer at Johnson and Johnson (J&J). Before joining J&J's Medicine Supply Chain team as a Principal Process Engineer, she worked as a scientist in J&J's orthopedic department with a team focused on research and design. In addition to her R&D and supply chain work, she has worked with J&J's compliance and quality teams to enhance customers' experience with drug delivery devices. Dr. Aghazadeh's research knowledge in biofuel production and her expertise working in an industry that is greatly regulated, prompted her to recognize the importance of global scale collaboration. As a result, she has initiated many technical collaborations within the different sectors of J&J and with innovative external parties and academic partners. Her primary focuses include advocating for multi-functional collaborations and partnerships for sustainability in biopharmaceutical production, new technology development, data collection and analysis, customer experience improvements, community outreach and education, and promoting workplace inclusion and equity. She is involved with organizations such as SWE (Society of Women Engineers), NASBE (National Association of State Boards of Education), and NHPE (National Society of Professional Engineers). She holds a PhD in Biological Engineering from Purdue University, a MSc in Chemical Engineering from the University of Maine, and a BS in Chemical Engineering from Sharif University of Technology.

Lara A. Campbell

Member

Lara A. Campbell, PhD, is the Founder of Petrichor Scientific Consulting which provides science policy and strategic planning support across a broad range of scientific endeavors. Dr. Campbell previously served in the White House Office of Science and Technology Policy as Executive Director of the President's Council of Advisors on Science and Technology, managing initiatives to identify solutions to urgent challenges that produced 19 reports and related documents. Prior to this, she initiated the Convergence Accelerator at the National Science Foundation (NSF), a new capability to accelerate research in areas of national importance requiring multidisciplinary approaches and directed NSF engagements with the Middle East and Africa in the Office of International Science and Engineering. Prior to NSF, she was Director of the nonprofit CUBRC Center for International Science and Technology Advancement, served as a Fulbright Scholar investigating innovation development in the Middle East, and supported research competitiveness at the American Association for the Advancement of Science (AAAS). Dr. Campbell is a strategic leader in science policy with expertise in designing and implementing programs that promote innovation development, especially across scientific disciplines. She received the NSF Director's Superior Accomplishment Award in 2020 for establishing the NSF Convergence Accelerator. Dr. Campbell holds a BA in chemistry from Rice University and a PhD in synthetic organic and biochemistry from University of Texas, Austin.

Bibiana Campos Seijo

Member

Bibiana Campos Seijo, PhD, is the Co-Founder of Silver Consulting LLC. She worked as the Vice President of C&EN Media Group and Editor in Chief of Chemical and Engineering News (C&EN) at the American Chemical Society. She has also held leadership roles at global organizations such as Stony Brook University, the Royal Society of Chemistry and Advanstar Communications Inc. Dr. Campos Seijo's competencies and abilities include strategy development, operational efficiency and nonprofit management; financial performance and revenue diversification; market expansion strategies and growth optimization; fostering innovation across diverse industries; and partnership building and audience engagement on a global scale. Leveraging her extensive network and strategic insights, she has successfully cultivated key partnerships and diversified revenue streams for clients across industries. Her contributions have been recognized with numerous awards, including multiple AM&P EXCEL Awards, Folio Awards, and Connectiv Innovation Awards and the G. D. Crain Jr. Leadership Award for a career that exemplifies excellence in business media. She holds a PhD in Chemistry from the Manchester Metropolitan University, UK, and a BSc in Chemistry from the University of Santiago de Compostela, Spain.

Patricia Hubbard

Member

Patricia Hubbard is the Senior Vice President and Chief Technology Officer for Cabot Corporation, having joined the company in 2018. At Cabot, Dr. Hubbard is responsible for developing the strategic technical agenda, driving corporate and business-focused research and development to ensure long-term growth. Prior to joining Cabot, she worked for Avery Dennison as Vice President of R&D for the Label and Graphic Materials division in North America and previously held leadership positions with Avient and General Electric. Throughout her career, she has built innovation capabilities that have driven new product development across a broad range of materials and formulated solutions. Dr. Hubbard earned a BS in chemistry from Case Western Reserve University, a Ph.D. in polymer science from the University of Akron and is a Lean Six Sigma Black Belt. She also serves on the board of directors of Hexcel Corporation.

Kimberly J. Madison

Member

Kimberly J. Madison, PhD, is currently a Chemistry Laboratory Coordinator at Tennessee State University. She also is the founder of a tutoring company which helps students who are struggling to learn chemistry. A key component of her business model is to provide students with a caring teacher/tutor to produce and retain successful future learners. Previously, Dr. Madison was a research assistant at Jackson State University working on computational studies to help researchers design organic based dyes to be used in optoelectronic devices and more specifically, her research focused on polymers and small molecule design. Her research expertise consists of computational modeling using software's such as Gaussian, VMD, and Autodock. She holds a PhD, MS, and BS in Chemistry from Jackson State University, a BS in Biology from Jackson State University, and an AS in Biology from Holmes Community College in Ridgeland, MS.

Laurel Royer

Member

Laurel Royer, PhD, is the Founder and Chief Scientific Officer of Carinalis Consulting and Research. Dr. Royer has more than 15 years of combined research, scientific, technical advising expertise. She has developed and built an inter- and trans-disciplinary consultancy focused on evaluating the balance between innovation and detrimental impact. She applies the fundamentals of the chemical and related sciences to evaluate manufacturing/production and application, disposal, contamination, and exposure issues via the use cycle to support stakeholders in achieving an overall positive impact. To that cause, she supports clients and partners across a myriad of sectors addressing both proactive and reactive responses at the intersection of the built and natural environments. Dr. Royer is keenly aware that the consequences of chemical contamination and exposure unequally impact communities across the globe. To that end, she works with these communities in technical advisory roles and is an ardent advocate of addressing the disproportionate burdens and consequences of our anthropogenic footprint. She holds a PhD in Environmental Organic Chemistry and a MS in Medicinal Chemistry and Molecular Pharmacology from Purdue University, a BS in Chemistry from the University of the Virgin Islands.

Jean W. Tom

Member

Jean Tom, PhD, (NAE) is Professor of the Practice in the Department of Chemical and Biological Engineering at Princeton University where she teaches courses on ethics and technical leadership and mentors students. Prior to joining Princeton in 2024, Jean spent 38 years in the pharmaceutical industry with Bristol Myers Squibb and Merck where she led engineering and technology activities to develop processes to make new small molecule drug candidates. Her area of expertise includes crystallization, modeling, and process development. She contributes to her profession through volunteer leadership in the AIChE, CACHE, and ABET. Jean received her degrees in Chemical Engineering from Princeton University (Ph.D.) and MIT (MSCEP and BS). Jean was previously a committee member of the Board of Chemical Science and Technology.

William Tumas

Member

William Tumas, PhD, is the Associate Laboratory Director for Materials, Chemical and Computational Science (<https://www.nlr.gov/research/mcst>) at the National Laboratory of the Rockies (NLR) where he oversees R&D programs in solar, hydrogen, fuel cells, basic energy sciences, energy storage, and advanced computing. He directed two Energy Frontier Research Centers, is on the leadership team for the Liquid Sunlight Alliance and serves as the US lead for Mission Innovation Sunlight to X global innovation community. His research activities include materials discovery, solar energy conversion, catalysis, supercritical fluids, green chemistry, and waste treatment technology development and assessment. He has over 65 peer-reviewed publications, 12 patents, and has given over 125 invited presentations. He is an AAAS Fellow and serves on several advisory boards. Bill received a B.A in Chemistry from Ithaca College and a Ph.D. in Organic Chemistry from Stanford University as a Hertz and NSF Graduate Fellow, then did postdoctoral work at Caltech as an NIH and Chaim Weizmann Fellow. He served on several NRC panels including over 6 years on the Stockpile Committee providing independent scientific and technical advice to the U.S. Army regarding the disposal of its chemical stockpile; he has co-authored more than 12 NRC reports.

Andrew White

Member

Andrew White, PhD, is CTO of Edison Scientific, co-founder of FutureHouse, and a visiting Associate Professor of chemical engineering at the University of Rochester. Professor White leads work on building autonomous systems for scientific discovery, especially in the areas of chemistry and biology. Professor White has published on training scientific agents, reasoning large language models for chemistry, and an end-to-end autonomous AI Scientist. He has published over 75 peer-reviewed papers, been awarded young investigator awards from the National Science Foundation and National Institutes of Health and received the University of Rochester Curtis teaching award. He completed postdoctoral training at the University of Chicago and a PhD in Chemical Engineering from the University of Washington.

Susanna Widicus Weaver

Member

Susanna Widicus Weaver, PhD, is the Vozza Professor of Chemistry and Astronomy at the University of Wisconsin and the Director of the Wisconsin Center for Origins Research. Before moving to Wisconsin, Dr. Widicus Weaver was a Professor of Chemistry at Emory University. She was a postdoctoral fellow in Chemistry and Astronomy at the University of Illinois from 2005-2008. She is an expert in prebiotic astrochemistry. Her research, combining laboratory spectroscopy, observational astronomy, and chemical modeling, is aimed at understanding the mechanisms driving interstellar chemistry and the pathways for the formation of life. She holds a PhD in Chemistry from California Institute of Technology and a BS in Chemistry from Illinois Wesleyan University.

Jonathan Wylde

Member

Jonathan Wylde, PhD, serves as the Technical Director for Assured Flow Solution, a specialist chemical flow assurance laboratory servicing the oil and gas industry. Based in Houston, Dr. Wylde is responsible for overseeing the entire laboratory operation including direct customer interaction, project coordination and supervision of the laboratory staff. Prior to this Dr. Wylde worked for Clariant Oil and Mining Services for 20 years where he spent 10 of those years as Global Innovation Head where he oversaw the innovation and development advancement across multiple Clariant Oil and Mining Services channels, including technical, operational, sales and business development. As an Honorary Associate Professor at Heriot Watt University in Edinburgh, Scotland, Dr. Wylde has authored over 200 papers and patents and has served on the Society of Petroleum Engineers (SPE) committees for the International Scale Conference and Oilfield Chemical Conference and is actively serving as an Associate Editor for SPE Production and Operations and as a Technical Editor for the SPE Journal of Petroleum Technology, SPE Production and Operations and the SPE Journal.

Elizabeth Zeitler

Staff Officer