Reshaping Graduate STEM Education for the 21st Century

Committee

Alan I. Leshner

Chair

Alan I. Leshner is Chief Executive Officer, Emeritus, of the American Association for the Advancement of Science (AAAS) and former Executive Publisher of the Science family of journals. Before this position, Dr. Leshner was Director of the National Institute on Drug Abuse at the National Institutes of Health. He also served as Deputy Director and Acting Director of the National Institute of Mental Health, and in several roles at the National Science Foundation. Before joining the government, Dr. Leshner was Professor of Psychology at Bucknell University. Dr. Leshner is an elected fellow of AAAS, the American Academy of Arts and Sciences, the National Academy of Public Administration, and many others. He is a member and served on the governing Council of the National Academy of Medicine (formerly the Institute of Medicine) of the National Academies of Sciences, Engineering and Medicine. He served two terms on the National Science Board, appointed first by President Bush and then reappointed by President Obama. Dr. Leshner received Ph.D. and M.S. degrees in physiological psychology from Rutgers University and an A.B. in psychology from Franklin and Marshall College. He has been awarded seven honorary Doctor of Science degrees.

Sherilynn Black

Member

Dr. Sherilynn Black is an Assistant Professor of the Practice in Medical Education in the Duke University School of Medicine. She completed her undergraduate degree in Psychology (Biology minor) as a Morehead-Cain Scholar at the University of North Carolina at Chapel Hill and graduated with Highest Honors. She then completed her doctoral studies in the Department of Neurobiology at Duke University in 2008 and completed additional studies in the School of Education at the University of North Carolina at Chapel Hill. Her current research focuses on identifying the common variables associated with successful STEM student-development interventions in higher education, and in creating computational models that are predictive of the success of higher education intervention programs. Dr. Black currently serves as the founding Director of the Office of Biomedical Graduate Diversity for the Duke University School of Medicine. Her office works to bring talented underrepresented graduate students to Duke and to enrich their experiences over the course of their doctoral studies through a series of professional development opportunities, academic enrichment programs, mentoring programs, and cohort-formation activities. Dr. Black is also a co-Principal Investigator of the Duke Initiative for Maximizing Student Development (IMSD) program referred to as the Duke Biosciences Collaborative for Research Engagement (BioCoRE). Duke BioCoRE provides extensive mentoring and scientific engagement opportunities for talented and diverse undergraduate and graduate students in the biomedical and behavioral sciences. Dr. Black also serves in a number of additional roles in the Duke community, including serving as a member of the a President's Council on Black Affairs, the co-Advisor for the Duke Chapter of the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), a faculty advisor for the Duke Bridges to the Doctorate Program, and as a faculty affiliate for the Duke Center for Science Education. Dr. Black is deeply engaged in promoting STEM diversity efforts on a national level. She currently serves the international membership of the Society for Neuroscience as a faculty stakeholder in the Neuroscience Scholars Program and as a member of the Professional Development Committee, and she is also an appointed member of the AAMC Group on Graduate Research, Education, and Training (GREAT). She also works with the National Institutes of Health to lead national workshops on diversity initiatives in the basic sciences. Dr. Black continues to form institutional partnerships across the nation to build programmatic and institutional collaborations directed towards increasing diversity in the biomedical and basic sciences.

Mary Sue Coleman

Member

Mary Sue Coleman (NAM) is the president of the American Association of Universities and president emerita of the University of Michigan, an institution she led for 12 years before retiring in July 2014. She previously was president of the University of Iowa. Dr. Coleman recently co-chaired the Lincoln Project, an initiative of the American Academy of Arts & Sciences to explore strategies to preserve the strength and diversity of public colleges and universities. She also serves on the Board of Trustees of the Society for Science & the Public, a nonprofit organization dedicated to public engagement in scientific research and education. She is a member of the Board of Trustees of the Kavli Foundation, which is dedicated to advancing science and support for scientists, and the Board of Trustees of the Gates Cambridge Scholars, a graduate student fellowship program. She serves on the Board of Trustees of the Mayo Clinic and on the NIH Advisory Committee to the Director. In 2010, U.S. Commerce Secretary Gary Locke named her co-chair of the National Advisory Council on Innovation and Entrepreneurship.

Her leadership positions in higher education have included membership on the NCAA Board of Directors and the Knight Commission on Intercollegiate Athletics. She is a past chair of the Association of American Universities, and also served as chair of the Internet2 Board of Trustees. Elected to the National Academy of Medicine, Dr. Coleman also is a Fellow of the American Association for the Advancement of Science and of the American Academy of Arts and Sciences. As a biochemist, Dr. Coleman built a distinguished research career through her research on the immune system and malignancies. At Michigan, she holds appointments of professor emerita of biological chemistry in the Medical School and professor emerita of chemistry in the College of Literature, Science, and the Arts. For 19 years she was a member of the biochemistry faculty at the University of Kentucky. Her work in the sciences led to administrative appointments at the University of North Carolina at Chapel Hill and the University of New Mexico, where she served as provost and vice president for academic affairs. Dr. Coleman earned her undergraduate degree in chemistry from Grinnell College and her doctorate in biochemistry from the University of North Carolina.

Jamie L. Curtis-Fisk

Member

Dr. Jaime Curtis-Fisk is a STEM program leader and an R&D scientist for the Dow Chemical Company. Her primary focus area is leading the Dow STEM Ambassadors, the employee engagement program that focuses on unique approaches to connect the passion of STEM professionals to opportunities for impact in their local communities and through partner universities. Her role involves leading the internal program structure, developing STEM resources to enable employee volunteers to connect classroom concepts to real world technology, and managing collaborations with Dow's external partners. Along with employee volunteerism, Jaime is also very passionate about building the pipeline of future women scientists. She is involved with several initiatives that support the role of women in STEM, including serving on the American Chemical Society's Women Chemist Committee.

In addition to leading STEM education outreach, Dr. Curtis-Fisk is also a practicing STEM professional as an R&D project leader in Dow's Pharma and Food Solutions business. Her technical expertise focuses on polymer chemistry and utilizing material science to develop new delivery systems for active ingredients. Her technical accomplishments were recently recognized by the American Chemical Society through the Rising Star Award presented by the Women Chemists Committee to mid-level career women who have demonstrated outstanding promise for contributions to their field. She received her BS in chemistry from Grand Valley State University, and her PhD in Chemistry with certification in College Teaching from Michigan State University.

Kenneth Gibbs, Jr.

Member

Kenneth Gibbs, Jr is a Policy Analyst at the National Institute of General Medical Sciences (NIGMS). Prior to joining NIGMS, Dr. Gibbs was a Cancer Prevention Fellow at the National Cancer Institute (NCI) in the Science of Research & Technology Branch (SRTB) of the Division of Cancer Control and Population Sciences (DCCPS). Dr. Gibbs' conducts policy-relevant research aimed at strengthening the research enterprise. His work focuses on: 1) Biomedical Graduate and Postdoctoral Training, Workforce Development & Workforce Diversity. Specifically, understanding the mechanisms of career development among recent biomedical Ph.D. graduates and postdocs, and how they differ across lines of race/ethnicity and gender, so that strategies can be developed to promote inclusive excellence; and 2) Developing methodologies for evaluation & dissemination of best practices in "team science".

Prior to the NCI, Dr. Gibbs completed a AAAS Science & Technology Policy Fellowship at the National Science Foundation (NSF) in the Directorate for Education and Human Resources (EHR), Division of Human Resource Development (HRD). As a AAAS fellow, he contributed to the federal government's strategic STEM education plan by developing evidence-based recommendations for engagement programs, and initiated the Burroughs Wellcome Fund supported "STEM Ph.D. Careers" research project to identify the factors impacting the career development of recent Ph.D. graduates. Dr. Gibbs completed his Ph.D. in the Immunology program at Stanford University, and received his B.S. in biochemistry & molecular biology summa cum laude from the University of Maryland, Baltimore County where he was a Meyerhoff, MARC, and HHMI scholar. Dr. Gibbs serves on the Board of Directors for the National Postdoctoral Association. He has written about career development for Science Careers, and science diversity issues for Scientific American.

Maureen Grasso

Member

Dr. Maureen Grasso became dean of the Graduate School at North Carolina State University on July 1, 2014. NC State's Graduate School includes approximately 7,700 students and more than 220 degree programs that span the university's 10 academic colleges. International students comprise one-quarter of NC State's graduate student population. A nationally recognized leader in graduate education, Grasso served as dean of the graduate school at the University of Georgia from 2002-2014, overseeing a graduate program with more than 6,600 students, 95 doctoral programs, 138 master's programs and 17 specialty degree programs. Among her numerous accomplishments, a focus on graduate student diversity resulted in a 54 percent increase in African-American graduate students during her tenure. She is also a tenured professor of textile sciences.

Grasso has received numerous awards and recognitions for her work, including the Southern Graduate Schools Achievement Award for Outstanding Contributions to Graduate Education in 2009. She is a member of the Council of Graduate School board of directors and has served a number of leadership positions on the Conference of Southern Graduate Schools. She is a member of the American Society of Heating, Refrigerating and Air Conditioning Engineers and has served in many of its leadership positions. She currently serves on its foundation's board of trustees. Grasso has been invited to present numerous papers on topics ranging from the benefits of interdisciplinary research to enhancing doctoral completion rates. Prior to her tenure at Georgia, Grasso served as associate dean and interim dean of the Graduate School at the University of North Carolina at Greensboro. There she developed three innovative interdisciplinary degree programs to meet a growing need. She also served as a tenured professor and as faculty senate chair for two years. Grasso began her academic career at the University of Texas at Austin, gaining tenure as a textiles and apparel professor and also serving as a department head. Grasso received her bachelor's degree in textiles clothing from Utah State University, her master's in textile science from Cornell University, and her Ph.D. in textile science from the University of Tennessee.

Sally F. Mason

Member

Sally Mason is President Emerita of the University of Iowa. Trained as a cell developmental biologist, she also holds a full professorship in the Department of Biology in the College of Liberal Arts and Sciences. Currently, President Mason is overseeing a historic era of campus transformation, including rebuilding in the wake of the historic 2008 flooding, especially the renewal of an arts campus for the 21st century; the construction of a state-of-the-art children's hospital and biomedical discovery research center; and the first new residence hall since 1968. At Iowa, President Mason has also spearheaded a sustainable university initiative, making sustainability a central priority of all aspects of the university enterprise. Under President Mason's leadership, the UI has successfully met current economic challenges through careful planning, strategic prioritization, and increased efficiency. Other major accomplishments during President Mason's tenure have been a student success initiative that has led to increased enrollment and student retention, as well as an expansion of partnership agreements with Iowa's community colleges in order to offer UI degrees to students throughout the state through on-site and distance learning programs. President Mason successfully advocated for a two-year tuition freeze for resident undergraduate students for the 2013–2015 academic years, the first such tuition freeze in nearly forty years. The daughter of an immigrant father and the first child in her family to attend college, President Mason received her B.A. in zoology from the University of Kentucky in 1972, her M.S. from Purdue University in 1974, and her Ph.D. in cellular, molecular, and developmental biology from the University of Arizona in 1978. She spent two postdoctoral research years at Indiana University before joining the molecular biosciences faculty at the University of Kansas in 1981, where she received awards for outstanding undergraduate advising and teaching and was awarded a prestigious Kemper Teaching Fellowship.

After stints as acting chair of the Department of Physiology and Cell Biology and associate dean in the College of Liberal Arts and Sciences, in 1995 she won appointment as the dean of the College of Liberal Arts and Sciences, the largest academic unit on the KU campus. President Mason served as provost of Purdue University from 2001–2007, where she was responsible for planning, managing, and reviewing all academic programs at Purdue's West Lafayette campus and four affiliated branch campuses throughout Indiana. President Mason is the author of many scientific papers and has obtained a number of research grants from the National Science Foundation, the National Institutes of Health, the Wesley Research Foundation, and the Lilly Endowment. Her research interests have focused on the developmental biology, genetics, and biochemistry of pigment cells and pigments in the skin of vertebrates, and she served as president of the PanAmerican Society for Pigment Cell Research. Since 2006, President Mason has been appointed by the President of the United States to three terms on the National Medal of Science President's Committee, including a term as chair. She has also served as chair of the Advisory Committee to the National Science Foundation (NSF) Directorate for Education and Human Resources (EHR) and chair of the American Association for the Advancement of Science (AAAS) review panel of the NSF Science and Technology Centers Program.

Mary E. Maxon

Member

Dr. Mary Maxon is the Biosciences Area Principal Deputy at Lawrence Berkeley National Laboratory, where she is responsible for developing strategies for the use of biosciences to address national-scale challenges in energy and environment. She has extensive experience in both the public and private sectors, having served as the Assistant Director for Biological Research at the White House Office of Science and Technology Policy (OSTP) in the Executive Office of the President, where she developed the National Bioeconomy Blueprint, Director of the Marine Microbiology Program at the Gordon and Betty Moore Foundation, and in executive and management roles at Cytokinetics and Microbia, Inc. Maxon received her Ph.D. from the University of California, Berkeley and performed postdoctoral research in biochemistry and genetics at the University of California, San Francisco.

She is a member of the Academies' Board on Life Sciences (7/1/2014 -- 6/30/2017) and a member of the Academies' Committee on Future Biotechnology Products and Opportunities to Enhance Capabilities of the Biotechnology Regulatory System (3/15/2016 -- 3/31/2017).

Suzanne Ortega

Member

Dr. Suzanne Ortega became the sixth President of the Council of Graduate Schools on July 1, 2014. Prior to assuming her current position, she served as the University of North Carolina Senior Vice President for Academic Affairs (2011-14). Previous appointments included the Executive Vice President and Provost at the University of New Mexico, Vice Provost and Graduate Dean at the University of Washington, and the University of Missouri. Dr. Ortega's masters and doctoral degrees in sociology were completed at Vanderbilt University.

With primary research interests in mental health epidemiology, health services, and race and ethnic relations, Dr. Ortega is the author or co-author of numerous journal articles, book chapters, and an introductory sociology text, now in its 8th edition. An award winning teacher, Dr. Ortega has also served on a number of review panels for NSF and NIH and has been the principal investigator or co-investigator on grants totaling more than $6 million in state and federal funds. Dr. Ortega serves or has served on a number of professional association boards, committees, including, the Executive Boards of the Council of Graduate Schools, the Graduate Record Exam (GRE), the National Academies of Science Committee on the Assessment of the Research Doctorate, the National Science Foundation's Human Resources Expert Panel, the North Carolina E-learning Commission, the North Carolina Public School Forum, the UNC TV Foundation, and the UNC Press Board of Governors.

Christine Ortiz

Member

Dr. Christine Ortiz was Dean for Graduate Education and the Morris Cohen Professor of Materials Science and Engineering at the Massachusetts Institute of Technology. She is in the process of launching her own university: http://www.chronicle.com/article/MIT-Dean-Takes-Leave-to-Start/235121?cid=cp21.

Dr. Ortiz obtained her B.S. from Rensselaer Polytechnic Institute and her M.S. and Ph.D. from Cornell University, all in the field of materials science and engineering, with a minor in theoretical and applied mechanics. During graduate school, Dr. Ortiz carried out collaborative research each summer at the University of Cambridge, Cavendish (physics) Laboratory in the UK. After graduation, she was granted an NSF-NATO postdoctoral fellowship which she used to carry out research in the Department of Polymer Chemistry, University of Groningen, in the Netherlands. Dr. Ortiz has over 175 scientific publications in more than 20 academic journals, has given more than 130 invited research lectures, and has supervised more than 80 students from 10 different academic disciplines. She has received over 30 national and international honors, including the Sigma Xi Distinguished Lecturer Award, National Security Science and Engineering Faculty Fellowship; she was a Lady Davis Fellow and visiting professor at the Hebrew University of Jerusalem in Israel, where she received the Hadassah Appreciation Medal; the MIT Martin Luther King Jr. Leadership Award; and the National Science Foundation Presidential Early Career Award for Scientists and Engineers, which was presented to her by President George W. Bush at the White House. She is also a fellow of the Defense Science Study Group. Dr. Ortiz is the founding and current faculty director of the MIT International Science and Technology Initiatives (MISTI) - Israel program. She has served on over 50 departmental and Institute committees and working groups and in her current role as Dean for Graduate Education leads areas which include; fellowships, educational innovation, graduate admissions administration, diversity initiatives, policies and procedures, and Institute-wide data analysis. Dr. Ortiz has given invited presentations on higher education at the Council for Graduate Schools, Association of American Universities, Association of Graduate Schools, American Society of Engineering Education, National Science Foundation, European University Association Council for Doctoral Education Global Strategic Forum (Ireland), Association of Chinese Graduate Schools (China), Vitae Researcher Development International Conference (UK), and the League of European Research Universities (Switzerland, 2012 and the UK, 2014).

Melanie Roberts

Member

Melanie Roberts, Ph.D. is the founder and director of Emerging Leaders in Science & Society (ELISS), a new program housed at the American Association for the Advancement of Science (AAAS). ELISS is a collaborative leadership development program for doctoral and professional students who are eager to contribute to society. Previously, Dr. Roberts worked on health and innovation policy as an AAAS S&T Policy Fellow in the United States Senate, and to improve peer review for interdisciplinary and transformative research and broader impacts the National Science Foundation. At the University of Colorado Boulder, Dr. Roberts developed programs, policies, and partnerships across disciplines and sectors to advance discovery and commercialization at the Biofrontiers Institute. She began her career as a research technician at Pfizer, Inc.

Dr. Roberts received a Ph.D. in neurobiology & behavior from the University of Washington and did postdoctoral work at the Center for Science & Technology Policy Research at the University of Colorado Boulder. She also serves on the governing board of the Journal of Science Policy & Governance.

Henry Sauermann

Member

Dr. Henry Sauermann is an Associate Professor and PhD Coordinator, Strategic Management, at the Scheller College of Business at the Georgia Institute of Technology. Dr. Sauermann explores the role of human capital in science, innovation, and entrepreneurship. Among others, he studies how scientists' motives and incentives relate to important outcomes such as innovative performance in firms, patenting in academia, or career choices and entrepreneurial interests. This stream of research also explores important differences in these mechanisms across organizational contexts such as industrial versus academic science or startups versus large established firms.

In new projects, Dr. Sauermann studies the dynamics of motives and incentives over time, and explores non-traditional innovative institutions such as Crowd Science and Innovation Contests. Additional work is underway to gain deeper insights into scientific labor markets and to derive implications for junior scientists, firms, and policy makers.

Dr. Sauermann is also a Research Associate at the National Bureau of Economic Research (NBER). His work has been funded by the National Science Foundation, the Kauffman Foundation, a Sloan Foundation Research Program, as well as the Georgia Research Alliance. He has published in a wide range of journals including Management Science, Organization Science, Research Policy, Science, the Proceedings of the National Academy of Sciences (PNAS), and PLoS ONE. He has presented his work at many national and international conferences and was invited to share his research with policy makers and business executives at meetings of The National Academies and The Conference Board.

Barbara A. Schaal

Member

Barbara Schaal is the Dean of the Faculty of Arts and Sciences, and the Mary Dell Chilton Distinguished Professor, Washington University in St. Louis. Schaal was born in Berlin, Germany and grew up in Chicago, IL, USA. She graduated from the University of Illinois, Chicago with a degree in biology and received a Ph.D. from Yale University. She is a plant evolutionary biologist who uses DNA sequences to understand evolutionary processes such as gene flow, geographical differentiation, and the domestication of crop species. Her current research focuses on the evolutionary genomics of rice. She currently serves as chair of the Division on Earth and Life Studies at the National Research Council and is a member of President Obama’s Council of Advisors for Science and Technology. She has been president of the Botanical Society of America and the Society for the Study of Evolution. She is an elected member of the American Academy of Arts and Sciences and US National Academy of Sciences where she served as Vice President. She was appointed as a US science envoy by former Secretary of State Hillary Clinton. In February 2016 Schaal became the president of the American Association of the Advancement of Science (AAAS).

Subhash C. Singhal

Member

Dr. Subhash Singhal (NAE) is Battelle Fellow and Fuel Cells Director at the Pacific Northwest National Laboratory (PNNL). He joined the Energy Science and Technology Directorate at PNNL in April 2000 after having worked at Siemens Power Generation (formerly Westinghouse Electric Corporation) for over 29 years. At PNNL, Dr. Singhal provides senior technical, managerial, and commercialization leadership to the Laboratory's extensive fuel cell program. At Siemens Westinghouse, he conducted and/or managed major research, development, and demonstration programs in the field of advanced materials for various energy conversion systems including steam and gas turbines, coal gasification, and fuel cells. From 1984 to 2000, he was manager of Fuel Cell Technology there, and was responsible for the development of high temperature solid oxide fuel cells (SOFCs) for stationary power generation. In this role, he led an internationally recognized group in the SOFC technology and brought this technology from a few-watt laboratory curiosity to fully-integrated 200 kW size power generation systems. He has authored over 75 scientific publications, edited 13 books, received 13 patents, and given over 240 plenary, keynote and other invited presentations worldwide.

Dr. Singhal is a member of the U.S. National Academy of Engineering, a Fellow of four professional societies (American Ceramic Society, The Electrochemical Society, ASM International, and American Association for the Advancement of Science (AAAS); and a senior
member of the Mineral, Metals & Materials Society (TMS). He served on the Electrochemical Society's Board of Directors during 1992-94, received its Outstanding Achievement Award in High Temperature Materials in 1994, and continues as the Chairman of its International Symposium on Solid Oxide Fuel Cells held biennially since 1989. He served as President of the International Society for Solid State Ionics during 2003-2005. He received the American Ceramic Society's Edward Orton Jr. Memorial Award in 2001; an Invited Professorship Award from the Japan Ministry of Science, Education and Culture in 2002; and the Christian Friedrich Schoenbein Gold Medal from the European Fuel Cell Forum in 2006. He serves on the Editorial Boards of the Elsevier's Journal of Power Sources and the Fuel Cell Virtual Journal, and is an Associate Editor of ASME's Journal of Fuel Cell Science and Technology. He has also served on many national and international advisory panels including those of the National Materials Advisory Board of the National Research Council, National Science Foundation, Materials Properties Council, U.S. Department of Energy, NATO Advanced Study Institutes and NATO Science for Peace Programs, United Nations Development Program (UNDP), United Nations Industrial Development Organization (UNIDO), International Energy Agency (IEA), and the European Commission. Dr. Singhal is also an Adjunct Professor in the Department of Materials Science and Engineering at the University of Utah; and serves on the Visiting Advisory Board of the Department of Materials Science and Engineering at the University of Florida.

Kate Stoll

Member

Dr. Kate Stoll joined the MIT Washington Office in September of 2014 as Senior Policy Advisor. She focuses on health and space research including NIH, NASA, FDA, and their related Congressional committees. Kate also engages with the MIT student and alumni advocacy communities. Kate received a B.A. in Biochemistry and Molecular Biology from Reed College in Portland, Oregon, and a Ph.D. in Biochemistry from the University of Washington, studying protein structure and function as it relates to the Breast Cancer Protein, BRCA1. She served as an American Association for the Advancement of Science S&T Policy Fellow at the National Science Foundation where she worked on STEM graduate education and higher education issues. She created the NSF Innovation in Graduate Education Challenge and is the co-executive editor of the publication The Power of Partnerships: A Guide from the NSF GK-12 Program. Kate has long been interested in the role of students in the research and innovation enterprise and is the co-founder of the AAAS program, Emerging Leaders In Science & Society, or ELISS, which prepares graduate and professional students to collaborate across boundaries to tackle complex challenges in society. Most recently, she served as an American Chemical Society Congressional Fellow with the U.S. House Committee on Energy and Commerce under Ranking Member Henry Waxman.

James M. Tien

Member

Dr. James M. Tien (NAE) is Distinguished Professor and Dean Emeritus of the University of Miami College of Engineering. An internationally renowned researcher, he formerly served as the Yamada Corporation Professor at Rensselaer Polytechnic Institute, was founding chair of its Department of Decision Sciences and Engineering Systems, and professor in its Department of Electrical, Computer and Systems Engineering. Tien joined the Rensselaer faculty in 1977 and twice served as its acting dean of engineering. In 2001 he was elected to membership in the National Academy of Engineering, one of the highest honors accorded an engineer. His research interests include systems modeling, public policy, decision analysis, and information systems. He has served on the Institute of Electrical and Electronics Engineers Board of Directors (2000-04) and was its vice president in charge of the Publication Services and Products Board and the Educational Activities Board. Tien earned his bachelor's degree in electrical engineering from Rensselaer and his Ph.D. in systems engineering and operations research from Massachusetts Institute of Technology.

Keith R. Yamamoto

Member

Dr. Keith Yamamoto (NAS, NAM) is currently Vice Chancellor for Science Policy and Strategy, Vice Dean for Research, School of Medicine, and Professor of Cellular & Molecular Pharmacology at the University of California, San Francisco. Throughout his career, Dr. Yamamoto's research has focused on signaling and transcriptional regulation by nuclear receptors; he uses structural, mechanistic and systems approaches to pursue these problems in pure molecules, cells and whole organisms. Dr. Yamamoto has led or served on numerous national committees focused on public and scientific policy, public understanding and support of biological research, and science education; he chairs the Coalition for the Life Sciences, and he serves on the Advisory Committee for Division of Earth and Life Studies for the National Academy of Sciences, following six years as chair of the Board on Life Sciences within that division. Dr. Yamamoto has chaired or served on many committees that oversee the process of peer review and the policies that govern it at the National Institutes of Health; currently, he sits on the Advisory Council of the NIH Center for Scientific Review. He chairs the External Advisory Committee for the Watson School of Biological Sciences at the Cold Spring Harbor Laboratory, serves as a member of the advisory boards for Research!America, the Lawrence Berkeley National Laboratory and Burrill & Company, and sits on the Council of the Institute of Medicine. Dr. Yamamoto is an elected member of the National Academy of Sciences, the Institute of Medicine, the American Academy of Arts and Sciences, and the American Academy of Microbiology, and is a fellow of the American Association for the Advancement of Science.