

Next Generation Researchers Initiative

Committee

Ronald J. Daniels

Chair

Ronald J. Daniels, JD, LLM is the 14th president of The Johns Hopkins University. He also is the chair of the Executive Committee of Johns Hopkins Medicine, serving as a bridge between the university and the Johns Hopkins Health System. In 2014, Johns Hopkins Institutions had revenues of \$9.6 billion. A law and economics scholar, Daniels holds an appointment as professor in the Department of Political Science at Johns Hopkins. Daniels' research focuses on the intersections of law, economics, development, and public policy, in such areas as corporate and securities law, social and economic regulation and the role of law and legal institutions in promoting third world development. He is an author or editor of seven books, including *Rule of Law Reform and Development* (2008), on the role of legal institutions in the economies of third world countries, and *Rethinking the Welfare State* (2005), an analysis of global social welfare policies, especially the effectiveness of government vouchers (both co-authored with Michael Trebilcock). He is also the author or co-author of dozens of scholarly articles, and has become a leading voice in discussions of the tightening funding environment for early-career biomedical researchers. Previously, Daniels was provost and professor of law at the University of Pennsylvania and dean and James M. Tory Professor of Law at the University of Toronto. Daniels earned an LLM from Yale University in 1988 and a JD in 1986 from the University of Toronto, where he served as co-editor-in-chief of the law review. He received a BA from the University of Toronto in 1982, in political science and economics. He has been visiting professor and Coca-Cola World Fellow at Yale Law School and John M. Olin Visiting Fellow at Cornell Law School. He is a fellow of the American Academy of Arts and Sciences.

Nancy C. Andrews

Member

Nancy Andrews, M.D., Ph.D., has been Dean of the Duke University School of Medicine and Vice Chancellor for Academic Affairs since October 2007. She is also Nanaline H. Duke Professor of Pediatrics and Professor of Pharmacology & Cancer Biology. Prior to coming to Duke, Dr. Andrews was the George Richards Minot Professor of Pediatrics at Harvard Medical School, Senior Associate in Medicine at Children's Hospital Boston, and a Distinguished Physician of the Dana-Farber Cancer Institute. Dr. Andrews also served as director of the Harvard-MIT MD-PhD Program and dean for Basic Sciences and Graduate Studies at Harvard Medical School.

She was an investigator of the Howard Hughes Medical Institute for 13 years. She maintains an NIH-funded research laboratory studying iron homeostasis and mouse models of human diseases. She has received numerous awards and prizes for research and mentoring. She served as the 2009 President of the American Society of Clinical Investigation. Dr. Andrews was elected as a Fellow of the American Association for the Advancement of Science and to membership in both the National Academy of Medicine and the American Academy of Arts and Sciences. She currently serves on the Council of the National Academy of Medicine and the Board of Directors of the American Academy of Arts and Sciences. Dr. Andrews received her BS and MS degrees in Molecular Biophysics and Biochemistry from Yale University.

W. T. Berggren

Member

W. Travis Berggren, Ph.D. joined the Salk Institute in 2007 as the founding director for the Stem Cell Research Core Facility. Dr. Berggren brought a wealth of knowledge and experience in stem cell biology to this position from the WiCell Research Institute, where he established and ran a core research program centered on mass spectrometry-based proteomic analysis of hES cells. There he worked closely with scientific director James A. Thomson and learned the "art" of hES culture from this leader in the field. Since 2010, he has taken on the additional role of Senior Director of Scientific Core Facilities to provide institutional oversight for all shared scientific core resources at the institute. Dr. Berggren received a BS in Chemistry at the University of California, San Diego, and his PhD in Analytical Chemistry from the University of Wisconsin in Madison.

Sue Biggins

Member

Sue Biggins, PhD, studies the mechanisms that ensure accurate chromosome segregation and regulation of the cell cycle. Her lab achieved the first isolation of kinetochores and has been applying structural, biophysical and biochemical techniques to elucidate the mechanisms of kinetochore-microtubule interactions and spindle checkpoint regulation. Her lab also works on the mechanisms that ensure chromatin composition and centromere identity. Dr. Biggins obtained her Ph.D. in molecular biology from Princeton University and went on to do postdoctoral work at the University of California, San Francisco in Dr. Andrew Murray's lab. She joined the faculty in the Division of Basic Sciences at the Fred Hutchinson Cancer Research Center in 2000 where she is currently a Full Member and Associate Director, as well as an Investigator of the Howard Hughes Medical Institute.

John C. Boothroyd

Member

John Boothroyd, Ph.D. is the Associate Vice Provost for Graduate Education at Stanford University. Dr. Boothroyd is also the Burt and Marion Avery Professor of Immunology in the Department of Microbiology and Immunology at Stanford University. He received his BSc from McGill University and his PhD in Molecular Biology from Edinburgh University. Prior to joining the Stanford faculty in 1982, he worked three years as a staff scientist at the Wellcome Laboratories in London, UK. In addition to his research, Dr. Boothroyd has served in an advisory role for several health-related foundations and the NIH as well as Department Chair and Senior Associate Dean for Research and Training at the Stanford School of Medicine. In these various roles, Dr. Boothroyd has been heavily involved in rethinking graduate education and postdoctoral training with a focus on adapting such programs to optimally prepare a diverse population of trainees for a fast-changing job market.

David R. Burgess

Member

David R. Burgess, PhD is a professor of biology at Boston College and a former president of SACNAS. His Cherokee great grandmother was a medicine woman, his father was a teacher and junior high school principal honored for serving minority students and his mother was a homemaker. He was raised in New Mexico and Northern California. His current research, funded by the NIH since 1977, is in the area of cell division and on the science education pipeline for American Indians. He has received several awards including a Research Career Development Award from the NIH and the E. E. Just Award from the American Society for Cell Biology where he was recently elected to Council. He was recently elected Fellow of AAAS.

Dr. Burgess has served on numerous national panels, both in basic science review and on study sections whose goal is to increase the diversity of scientists. He serves on the Minority Action Committee of the American Society for Cell Biology. He has presented a number of keynote addresses and lectures to scientific societies, universities and other organizations on his research and in the area of training disparities for minorities in the sciences. He served as a member of the Advisory Committee for the Office of Research on Minority Health at the NIH, the Advisory Committee to the Director at NIH, the NIH National Human Genome Research Institute Advisory Council, the NSF Committee on Equal Opportunity in Science and Engineering and the Biological, and Environmental Research Advisory Committee for the Department of Energy.

Kafui Dzirasa

Member

Kafui Dzirasa, MD, PhD is Assistant Professor of Psychiatry and Behavioral Sciences at Duke University. Dr. Dzirasa is the first African American to complete a PhD in Neurobiology at Duke University. His research interests focus on understanding how changes in the brain produce neurological and mental illness, and his graduate work has led to several distinctions including: the Somjen Award for Most Outstanding Dissertation Thesis, the Ruth K. Broad Biomedical Research Fellowship, the UNCF-Merck Graduate Science Research Fellowship, and the Wakeman Fellowship. In 2009, Dr. Dzirasa obtained an MD from the Duke University School of Medicine. He was subsequently appointed as an assistant professor and house staff in the Department of Psychiatry and Behavioral Science at the Duke University School of Medicine.

Dr. Dzirasa received a Meyerhoff Scholarship at the University of Maryland Baltimore County (UMBC). He has served on the Board of Directors of the Student National Medical Association: a national organization dedicated to the eradication of health care disparities. Through his service as Chapter President, Region IV Director and National Internal Affairs Committee Chair, Dr. Dzirasa has participated in numerous programs geared towards exposing youth to science and technology, providing health education for underserved communities, and organizing clinics to screen for chronic diseases. In 2016, he was awarded the inaugural Duke Medical Alumni Emerging Leader Award and the Presidential Early Career Award for Scientists and Engineers.

Giovanna Guerrero-Medina

Member

Giovanna Guerrero-Medina, PhD is the Executive Director of Ciencia Puerto Rico, an international network of scientists, students and educators committed to promoting scientific outreach, education and careers among Latinos. She is also Director of the Yale Ciencia Initiative at Yale University, where she studies the impact of scientific networks like Ciencia Puerto Rico in improving access and participation in science and works to promote diversity through the Yale Provost Office. Under her leadership, CienciaPR has become one of the largest networked communities of Hispanic scientists in the world, has secured over \$2 million in federal and foundation grants to support diversity in science education and career development, and in 2015 received recognition as a Bright Spot in science education by the White House. Dr. Guerrero-Medina serves as Principal Investigator of the NIH-funded Yale Ciencia Academy, a national program to provide graduate students with opportunities for professional development, outreach, and networking. She also leads “Seeds of Success”, an Amgen Foundation supported program to promote the participation of Latina middle school girls in STEM. Dr. Guerrero-Medina has worked as Head of Science Policy at the Van Andel Research Institute and as Health Science Policy Analyst at the National Institutes of Health. She has a B.A. in Biology from the University of Puerto Rico, Rio Piedras, a Ph.D. in Molecular and Cell Biology from the University of California, Berkeley, and was a 2005 Christine Mirzayan Science and Technology Policy Fellow at the National Academies of Sciences, Engineering and Medicine.

Judith Kimble

Member

Judith Kimble, PhD is Vilas Professor in the Department of Biochemistry at the University of Wisconsin-Madison and an Investigator in the Howard Hughes Medical Institute. She graduated from the University of California, Berkeley in 1971, worked for two years at the University of Copenhagen Medical School doing research and teaching histology and then received her Ph. D. in Molecular, Cellular and Developmental Biology from the University of Colorado, Boulder in 1978. She was a postdoctoral fellow at the MRC Laboratory of Molecular Biology in Cambridge, England, and moved to the University of Wisconsin-Madison as an Assistant Professor in 1983. Her position with HHMI began in 1994, and in 2001, she was awarded a Vilas Professorship, one of the highest honors at the University of Wisconsin-Madison. Dr. Kimble was elected to the National Academy of Sciences and the American Academy of Arts and Sciences in 1995 and to the American Philosophical Society in 2002. She has received numerous honors and awards and has served the biomedical research community in various capacities. She served as President of both the Genetics Society of America and of the Society for Developmental Biology.

Dr. Kimble’s election to the Council of the National Academy of Sciences in 2008 led to membership on the Committee for Science, Engineering, Medicine, and Public Policy (COSEMPUP) and further involvement in policy. Most recently, she organized a workshop at UW Madison “Rescuing Biomedical Research from its Systemic Flaws: Strategies and Pathways Ahead”, including cross-campus discussions leading up to the workshop that engaged biomedical researchers ranging from Ph.D students and postdocs to deans and emeriti and ranging from basic to clinical scientists.

Story C. Landis

Member

Story Landis, PhD, was formally the Director of the National Institute of Neurological Disorders and Stroke (NINDS), a position she held since September 1, 2003. As the Director of the NINDS, Dr. Landis oversaw an annual budget of \$1.5 billion and a staff of more than 900 scientists, physician-scientists, and administrators. The Institute supports research by investigators in public and private institutions across the country, as well as by scientists working in its intramural laboratories and branches in Bethesda, Maryland. Since 1950, the Institute has been at the forefront of U.S. efforts in brain research. Dr. Landis joined the NINDS in 1995 as Scientific Director and worked with then-Institute Director Zach W. Hall, Ph.D., to coordinate and re-engineer the Institute's intramural research programs. Between 1999 and 2000, under the leadership of NINDS Director Gerald D. Fischbach, M.D., she led the movement, together with NIMH Scientific Director Robert Desimone, Ph.D., to bring some sense of unity and common purpose to 200 laboratories from 11 different NIH Institutes, all of which conduct leading-edge clinical and basic neuroscience research. A native of New England, Dr. Landis received her undergraduate degree in biology from Wellesley College in 1967 and her master's degree (1970) and Ph.D. (1973) from Harvard University where she conducted research on cerebellar development in mice. After postdoctoral work at Harvard University studying transmitter plasticity in sympathetic neurons, she served on the faculty of the Harvard Medical School Department of Neurobiology. In 1985, she joined the faculty of Case Western Reserve University School of Medicine in Cleveland, Ohio, where she held many academic positions including Associate Professor of Pharmacology; Professor and Director of the Center on Neurosciences; and Chairman of the Department of Neurosciences, a department she was instrumental in establishing. Under her leadership, Case Western's neuroscience department achieved worldwide acclaim and a reputation for excellence. Throughout her research career, Dr. Landis has made many fundamental contributions to the understanding of developmental interactions required for synapse formation. She has garnered many honors and awards and is an elected fellow of the Academy of Arts and Sciences, the American Association for the Advancement of Science, and the American Neurological Association. In 2002, she was named the President-Elect of the Society for Neuroscience. In October of 2009, she was elected to the membership of the Institute of Medicine (IOM).

Kenneth Maynard

Member

Kenneth Maynard, PhD is senior director in the Central Nervous System Therapeutic Area Unit at Takeda Pharmaceuticals, Inc. Formerly he was an assistant professor at Harvard Medical School/Massachusetts General Hospital. His doctorate in neurobiology is from University College, London, U.K. Having more than 50 scientific publications, Dr. Maynard serves on four international journals' editorial boards. He is a fellow of the American Heart Association, chair of the Professional Development Committee and councilor for the Society for Neuroscience, and serves on the Executive Committee of the International Dose-Response Society and External Scientific Panel of the NIH director's Program on Broadening Experiences in Scientific Training.

Gary S. McDowell

Member

Gary S. McDowell, PhD is the Executive Director of The Future of Research, Inc. and a resident at the Manylabs open science skunkworks in San Francisco, where he works to support junior scientists advocating for changes to the scientific system. Originally from Belfast, Northern Ireland, he has a BA and MSci in Chemistry, and a PhD in Oncology, all from the University of Cambridge, and near the end of his PhD had a visiting scholarship at the University of Lille in France. Dr. McDowell has over 4 years of postdoctoral experience in the U.S., first at Boston Children's Hospital and Harvard Medical School, and then at Tufts University. In 2015 he was part of the Future of Research team named Science Careers' "People of the Year". He is supported in his work for Future of Research by a grant from the Open Philanthropy project; is supported in his residency at Manylabs by the Gordon and Betty Moore Foundation; and is a co-PI on an NSF award addressing diversity and retention of young scientists in the STEM workforce.

Jessica Polka

Member

Jessica Polka, PhD is a visiting postdoctoral research fellow in the department of Systems Biology at Harvard Medical School and a visiting scholar at the Whitehead Institute. Dr. Polka received her BS in Biology from UNC-CH and her PhD in Biochemistry from UCSF.

She is director of ASAPbio, president of the board of directors of Future of Research, and a steering committee member of Rescuing Biomedical Research. She has served as co-chair of ASCB's COMPASS (Committee for Postdocs and Students). Dr. Polka was a recipient of the Jane Coffin Childs Fellowship, the ASCB Beckman Coulter Distinguished Graduate Student Prize, a Genentech Graduate Fellowship, the NSF GRFP, and the Morehead Scholarship.

Joan Y. Reede

Member

Joan Y. Reede, MD, MPH, MS, MBA is the Dean for Diversity and Community Partnership and a Professor of Medicine at Harvard Medical School (HMS). Dr. Reede also holds appointments as Associate Professor in the Department of Social and Behavioral Sciences at the Harvard School of Public Health, and is an Assistant in Health Policy at Massachusetts General Hospital. Dr. Reede is responsible for the development and management of a comprehensive program that provides leadership, guidance, and support to promote the increased recruitment, retention, and advancement of underrepresented minority, women, LGBT, and faculty with disabilities at Harvard Medical School (HMS). This charge includes oversight of all diversity activities at HMS as they relate to faculty, trainees, students, and staff. Dr. Reede also serves as the director of the Minority Faculty Development Program, and faculty director of Community Outreach Programs at Harvard Medical School, and Program Director of the Faculty Diversity Program of the Harvard Catalyst/The Harvard Clinical and Translational Science Center. Dr. Reede has created and developed more than 20 programs at HMS that aim to address pipeline and leadership issues for minorities and others who are interested in careers in medicine, academic and scientific research, and the healthcare professions.

Dr. Reede is the recipient of numerous awards and honors including the Herbert W. Nickens Award from AAMC and the Society of General Medicine in 2005; election to the National Academy of Medicine in 2009; the 2011 Diversity Award from the Association of University Professors; and in 2012 she was the recipient of an Elizabeth Hurlock Beckman Trust Award. In 2013 she received an Exemplar STEM Award from the Urban Education Institute at North Carolina A & T University in Greensboro, North Carolina. Dr. Reede is a 2015 recipient of the Jacobi Medallion from the Mount Sinai Alumni Association and the Icahn School of Medicine.

Lana Skirboll

Member

Lana R. Skirboll, PhD is Vice President of Academic and Scientific Affairs at Sanofi, where she works on building academic relationships and policy issues of importance to innovation, including biosimilars, data sharing, public-private partnerships and external innovation. She formerly served as Director of Science Policy at the National Institutes of Health (NIH), where she was responsible for identifying policy issues relevant to the support and conduct of research, analyzing and recommending and creating new policies that advance the interest of the Agency. These included human subject protections, the privacy and confidentiality of research records, conflicts of interest, human embryo research, cloning and fetal tissue research, genetics, health, and society, dual use research, gene therapy and nanotechnology, comparative effectiveness research, personalized medicine, among others.

Dr. Skirboll played a leadership role in NIH's organizational strategic planning and evaluation, where, for example, she developed NIH's efforts to measure and report on Agency performance. She also worked with the NIH Director, Elias Zerhouni, to design and implement the "Roadmap for Medical Research." She initiated the development of a new program on Return on Investment to explore NIH's impact on local economies and national competitiveness. She was responsible for developing and coordinating the NIH Public-Private partnership program, which leveraged NIH investments by working with industry

Dr. Skirboll was trained in Pharmacology and Neuroscience. She completed her Ph.D. at Georgetown University Medical School, followed by post-doctoral work and research positions at Yale University, the Karolinska Institute (Sweden), and the National Institute of Mental Health. She is the author of more than 70 peer reviewed scientific publications.

Paula E. Stephan

Member

Paula Stephan, PhD is Professor of Economics at Georgia State University. Stephan is also a research associate at the National Bureau of Economic Research. She is a fellow of the American Association for the Advancement of Science. In 2012 Science Careers selected Dr. Stephan as their first "Person of the Year." Stephan's research interests focus on the careers of scientists and engineers and the process by which knowledge moves across institutional boundaries in the economy. Dr. Stephan currently serves on the NRC Board on Higher Education and Workforce. She served on the National Advisory General Medical Sciences Council, National Institutes of Health, 2005-2009 and served on the Advisory Committee of the Social, Behavioral, and Economics Program, National Science Foundation, 2001-2008. She was a member of the European Commission High-Level Expert Group that authored the report "Frontier Research: The European Challenge." She has served on a number of NRC committees including the committee on Dimensions, Causes, and Implications of Recent Trends in the Careers of Life Scientists, Committee on Methods of Forecasting Demand and Supply of Doctoral Scientists and Engineers, and the Committee on Policy Implications of International Graduate Students and Postdoctoral Scholars in the United States. Her research has been supported by the Alfred P. Sloan Foundation, the Andrew W. Mellon Foundation, and the National Science Foundation. Dr. Stephan graduated from Grinnell College (Phi Beta Kappa) with a B.A. in Economics and earned both her M.A. and Ph.D. in Economics from the University of Michigan. She has been a visiting scholar at Katholieke Universiteit Leuven, Belgium, spring 2005, a Wertheim Fellow, Harvard University, February 2007, and an ICER fellow, Turin, Italy, fall 2009.

Maria Elena Zavala

Member

Maria Elena Zavala, PhD is a professor of Biology at California State University, Northridge. Zavala holds an undergraduate degree from Pomona College and earned her Ph.D. in Botany from the University of California, Berkeley. In addition to her interests in plants, she is interested in educational equity issues, has worked to develop science curricula for K-12 teachers, has worked to improve teaching and learning in STEM, and has established and directed programs that seek to increase the number of minorities in the sciences.

Dr. Zavala's accomplishments include serving as director of the MARC/MBRS and Bridges to the Doctorate Program - Minority Access to Research Careers, a program designed to offer mentorship, financial support and research experience to minority students. Zavala was the first female president of SACNAS, the Society for Advancement of Chicanos and Native Americans in Science. Under her direction, SACNAS received the 2002 National Science Board Public Service Award for institutions increasing public understanding of science and engineering. She is a Fellow of the American Association for the Advancement of Science and of the American Society for Plant Biologists. She is a recipient of the Presidential Award of Excellence for Science, Mathematics, and Engineering Mentoring, awarded to her by President Clinton.