Bridging U.S-China Horizons for Planetary Health: A Symposium Series

Committee

John G. Hildebrand

Chair

John G. Hildebrand is Regents Professor Emeritus of Neuroscience at the University of Arizona in Tucson. Born and raised in Boston, Massachusetts, he earned his B.A. (biology, 1964) at Harvard University and Ph.D. (biochemistry, 1969) at Rockefeller University. After faculty service at Harvard (1970-1980) and Columbia (1980-1985) Universities, he joined the University of Arizona as founding head of the Division of Neurobiology (1985-2009) and later the Department of Neuroscience (2009-2013) after the Division became a Department in the College of Science. His research fields are insect neurobiology and neuroethology, chemical ecology, and vector biology. A past president of the Association for Chemoreception Sciences, International Society of Chemical Ecology, and International Society for Neuroethology, he currently is International Secretary of the National Academy of Sciences (2014-2026). He is a member or fellow of the African Academy of Sciences, American Academy of Arts and Sciences, American Philosophical Society, Brazilian Academy of Sciences, German National Academy of Sciences 'Leopoldina', National Academy of Sciences, Norwegian Academy of Science and Letters, Royal Norwegian Society of Sciences and Letters, and The World Academy of Sciences; Honorary Fellow of the Royal Entomological Society (UK); and a fellow of the American Association for the Advancement of Science, the Entomological Society of America, the International Society for Neuroethology, and the International Science Council.

Peter C. Agre

Member

Peter Agre studied chemistry at Augsburg College (B.A. 1970) and medicine at Johns Hopkins (M.D. 1974). He completed his residency at Case Western Reserve University in Cleveland and an Oncology Fellowship at the University of North Carolina at Chapel Hill. Agre joined the Johns Hopkins School of Medicine faculty in 1984 and rose to the rank of Professor of Biological Chemistry and Professor of Medicine. Agre is a Bloomberg Distinguished Professor and since 2008 has been the Director of the Malaria Research Institute at the Bloomberg School of Public Health. In 2003, Agre shared the Nobel Prize in Chemistry for discovering aquaporins, a family of water channel proteins found throughout nature and is responsible for numerous physiological processes in humans and is implicated in multiple clinical disorders. Agre is a member of the National Academy of Sciences and Medicine for which he chaired the Committee on Human Rights. From 2009-2011, Agre served as President and chair of the Board of Advisors of the American Association for the Advancement of Science. Agre now focuses his attention on combatting malaria in the laboratory and in the field where he oversees efforts in Zambia, Zimbabwe, and in Democratic Republic of Congo.

Carol A. Barnes

Member

Carol A. Barnes is a Regents Professor in the Departments of Psychology, Neurology, and Neuroscience at the University of Arizona, holding the Evelyn F. McKnight Endowed Chair for Learning and Memory in Aging. She also serves as Director of the Evelyn F. McKnight Brain Institute. A prominent figure in neuroscience, Dr. Barnes is a past-president of the Society for Neuroscience, a Fellow of the American Association for the Advancement of Science, an elected member of the National Academy of Sciences, and a Foreign Member of the Royal Norwegian Society of Sciences and Letters. Her numerous accolades include the 2013 Gerard Prize in Neuroscience and the 2014 APA Award for Distinguished Scientific Contributions. Her work spans behavioral, electrophysiological, and molecular biological approaches, studying young and aged rodents, non-human primates, and, more recently, humans through the Precision Aging Network. This program aims to enhance cognitive health across the lifespan, and her findings, with over 299 published works (H-index of 116), are considered foundational in brain aging and behavior. Over the past five decades, Dr. Barnes’ research has focused on understanding brain changes during normative aging, by examining mechanisms of cognitive aging using animal models that provide insight into the brain circuits underlying learning, memory, and complex cognitive functions. Integrating behavioral, anatomical, electrophysiological, and molecular approaches, her work aspires to unlock how brain function changes across the lifespan, with the ultimate hope of positively influencing cognitive aging trajectories

M. T. Clegg

Member

Michael T. Clegg (NAS) is Professor Emeritus at the University of California, Irvine. He received his BS and PhD degrees in agricultural genetics and genetics respectively at the University of California, Davis. In 1972, he joined the faculty of Brown University, moving from there to the University of Georgia in 1976. In 1984, he became Professor of Genetics at the University of California, Riverside. He also served as Dean of the College of Natural and Agricultural Sciences at UC Riverside from 1994 to 2000, and he was the founding Director of the Genomics Institute at UC Riverside, serving from 2000 to 2004. In 2004, he assumed his present position at the University of California, Irvine. During an academic career of more than 40 years, Dr. Clegg has published approximately 200 research articles and book chapters, and he has coauthored or edited nine books. Dr. Clegg’s research specialty is population genetics and molecular evolution. Dr. Clegg was elected to membership in the U.S. National Academy of Sciences in 1990, elected a Fellow of the American Academy of Arts and Sciences in 1992, and elected a Member of the American Philosophical Society in 2012. He was elected associate Fellow of the World Academy of Sciences (TWAS) in 2006. He is a corresponding Member of the National Academy of Exact Physical and Natural Sciences of Argentina, the Academia de Agronomia and Veterinaria of Argentina, the Academia Mexicana de Ciencias, the Cuban Academy of Sciences, and he is an Honorary Fellow of the Palestinian Academy of Sciences. He was elected Foreign Secretary of the U.S. National Academy of Sciences in 2002, and reelected in 2006 and in 2010. He has also served as President of the American Genetic Association (1987), President of the International Society for Molecular Biology & Evolution (2002) and Chair of the Section on Agriculture, Food and Natural Resources of the American Association for the Advancement of Science (2003).

Karen C. Seto

Member

Karen Seto is the Frederick C. Hixon Professor of Geography and Urbanization Science at Yale University. She is one of the world's leading experts on urbanization and its impacts on the planet, including climate change, biodiversity, and food systems. A geographer and urban scientist, she integrates remote sensing, field interviews, and modeling methods to focus on four research themes: 1) measuring and characterizing urban land-use; 2) modeling and understanding the drivers of urban land-use change; 3) forecasting urban expansion; and 4) assessing the environmental consequences of urban expansion. She is an expert in satellite remote sensing analysis and has pioneered methods to reconstruct historical urban land-use. Her research developed the first forecasts of urban land expansion globally. She has extensive fieldwork experience in Asia, especially China and India, where she has conducted research for over 20 and 10 years, respectively. Professor Seto serves on numerous national and international scientific bodies. She is chair of the Policy and Global Affairs Division of the U.S. National Academies and co-chair of the U.S. National Academies Climate Security Roundtable, established by the direction of Congress to help better understand and anticipate the ways climate change affects U.S. national security interests. She was the Coordinating Lead Author for two UN climate change reports, the IPCC 5th (2014) and 6th (2022) Assessment Reports, where she co-led the chapters on how urban areas can mitigate climate change. Professor Seto is committed to improving public understanding of an urbanizing planet. She was the Executive Producer of “10,000 Shovels: Rapid Urban Growth in China,” a documentary film that integrates satellite imagery, historical photographs, and contemporary film footage to highlight the urban changes occurring in China. Her book, City Unseen, co-authored with Meredith Reba (YSE MEM '14), uses satellite imagery to show how cities shape landscapes and how landscapes shape cities.

Professor Seto has received many awards for her scientific contributions, including the Outstanding Contributions to Remote Sensing Research Award from the American Association of Geographers. She is an elected member of the U.S. National Academy of Sciences, the American Academy of Arts and Sciences, and the Connecticut Academy of Science and Engineering. She is also a Foreign Academician of the Chinese Academy of Sciences, an elected lifetime member of the Council on Foreign Relations and a Fellow of the American Association for the Advancement of Science. She holds a PhD in Geography from Boston University.

Bruce W. Stillman

Member

Bruce Stillman is President and Chief Executive Officer of Cold Spring Harbor Laboratory, and Oliver R. Grace Professor.?A native of Australia, he obtained a Bachelor of Science degree with honors at The University of Sydney and a Ph.D. from the John Curtin School of Medical Research at the Australian National University. He then moved to Cold Spring Harbor Laboratory as a Postdoctoral Fellow in 1979 and has been at the Laboratory ever since, being promoted to the scientific staff in 1981.?Dr. Stillman was Director of the Cancer Center at Cold Spring Harbor from 1992 – 2016. In 1994, he succeeded Nobel Laureate Dr. James D. Watson as Director of Cold Spring Harbor Laboratory and was appointed President in 2003. Dr. Stillman's research focuses on how chromosomes are duplicated in cells, a process that ensures accurate inheritance of genetic material from one generation to the next. For his research accomplishments, Dr. Stillman has received a number of honors including election as a Fellow of the American Association for Cancer Research (AACR), as well as to The Royal Society, to the US National Academy of Sciences and to the American Academy of Arts and Sciences.?In 1994, Dr. Stillman was awarded the Julian Wells Medal (Australia) and in 1999 he was appointed an Officer of the Order of Australia (AO) for service to scientific research in the field of molecular biology.? In 2004, Dr. Stillman and Dr. Thomas Kelly of Memorial Sloan Kettering Cancer Center were awarded the Alfred P. Sloan Prize by the General Motors Cancer Research Foundation.? In 2006 Dr. Stillman received the Basic Science award from the Society of Surgical Oncology.?In 2010, Drs. Stillman and Kelly received the Louisa Gross Horwitz Prize from Columbia University.?He is the winner of the 2014 Herbert Tabor Research Award given by the American Society for Biochemistry and Molecular Biology. In 2019, he was awarded the Canada Gairdner International Award with John Diffley of The Francis Crick Institute. Dr. Stillman has received six honorary doctorates. Dr. Stillman is a member of the Medical Advisory Board of the Howard Hughes Medical Institute and advises a number of other research organizations, including the M.I.T. Cancer Center. He was chair of the Board of Scientific?Counselors of the National Cancer Institute and former vice-chair of the National Cancer Policy Board. He also served on the Board of Scientific Advisors of the National Cancer Institute.