

NATIONAL ACADEMY OF SCIENCES  
NATIONAL ACADEMY OF ENGINEERING  
INSTITUTE OF MEDICINE  
NATIONAL RESEARCH COUNCIL

COMMITTEE ON WOMEN IN SCIENCE,  
ENGINEERING, AND MEDICINE  
Policy and Global Affairs

# **A Conversation with Claude Steele**

## **Program**

**June 2, 2015**

**Newport Room**

**Arnold and Mabel Beckman Center of the National Academies**

**100 Academy Drive**

**Irvine, California**

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## AGENDA

**1:20 pm – 1:30 pm**

### **Registration**

**1:30 pm – 1:50 pm**

### **Welcome**

*Rita Colwell*, Chair, Committee on Women in Science, Engineering, and Medicine; Distinguished University Professor, University of Maryland College Park and Johns Hopkins University Bloomberg School of Public Health

### **Opening Remarks**

*Ralph J. Cicerone*, President, National Academy of Sciences

**1:50 pm – 3:30 pm**

### **A Conversation with Claude Steele**

*Claude Steele*, Executive Vice Chancellor and Provost, University of California, Berkeley

Moderator: *Lydia Villa-Komaroff*, Vice-Chair, Committee on Women in Science, Engineering, and Medicine; Co-founder and Board Member of Cytonome/ST, LLC

#### **Discussants:**

- *Andrei Cimpian*, Associate Professor and Judy DeLoache Professorial Scholar of Psychology, University of Illinois at Urbana-Champaign
- *Douglas M. Haynes*, Professor of History and Vice Provost for Academic Equity, Diversity and Inclusion; Director of UCI ADVANCE Program, University of California, Irvine
- *Jennifer Chayes*, Member, Committee on Women in Science, Engineering, and Medicine; Distinguished Scientist and Managing Director, Microsoft Research New England and Microsoft Research New York City

**3:30 pm – 4:30 pm**

### **Reception**

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## BIOGRAPHIES OF SPEAKERS

**Rita R. Colwell**

**Chair, Committee on Women in Science, Engineering, and Medicine**

**Distinguished University Professor**

**University of Maryland, College Park, and**

**Johns Hopkins University Bloomberg School of Public Health**

Rita Colwell is a Distinguished University Professor both at the University of Maryland at College Park and at Johns Hopkins University Bloomberg School of Public Health, Senior Advisor and Chairman Emeritus, Canon US Life Sciences, Inc., and President and CEO of CosmosID, Inc. Her interests are focused on global infectious diseases, water, and health, and she is currently developing an international network to address emerging infectious diseases and water issues, including safe drinking water for both the developed and developing world. Colwell served as the 11th Director of the National Science Foundation (NSF), 1998-2004. In her capacity as NSF Director, she served as Co-chair of the Committee on Science of the National Science and Technology Council. Colwell has held many advisory positions in the U.S. Government, nonprofit science policy organizations, and private foundations, as well as in the international scientific research community. She is a nationally-respected scientist and educator, and has authored or co-authored 17 books and more than 750 scientific publications. She produced the award winning film, *Invisible Seas*, and has served on editorial boards of numerous scientific journals. Before going to NSF, Colwell was President of the University of Maryland Biotechnology Institute and Professor of Microbiology and Biotechnology at the University Maryland. She was also a member of the National Science Board from 1984 to 1990. Colwell has previously served as Chairman of the Board of Governors of the American Academy of Microbiology and also as President of the American Association for the Advancement of Science, the Washington Academy of Sciences, the American Society for Microbiology, the Sigma Xi National Science Honorary Society, and the International Union of Microbiological Societies. She is a member of the National Academy of Sciences, the Royal Swedish Academy of Sciences, Stockholm, the Royal Society of Canada, and the American Academy of Arts and Sciences, and the American Philosophical Society. She is Immediate Past-President of the American Institute of Biological Sciences (AIBS). Colwell has also been awarded 55 honorary degrees from institutions of higher education and received numerous awards. Born in Beverly, Massachusetts, Colwell holds a B.S. in Bacteriology and an M.S. in Genetics, from Purdue University, and a Ph.D. in Oceanography from the University of Washington.

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**Ralph J. Cicerone**  
**President of the National Academy of Sciences**

Ralph J. Cicerone is the President of the National Academy of Sciences and Chair of the National Research Council. His research in atmospheric chemistry, climate change and energy has involved him in shaping science and environmental policy at the highest levels nationally and internationally. Cicerone has received a number of honorary degrees and many awards for his scientific work. Among the latter, the Franklin Institute recognized his fundamental contributions to the understanding of greenhouse gases and ozone depletion by selecting Cicerone as the 1999 laureate for the Bower Award and Prize for Achievement in Science. One of the most prestigious American awards in science, the Bower Award also recognized his public policy leadership in protecting the global environment. In 2001, he led a National Academy of Sciences study of the current state of climate change and its impact on the environment and human health, requested by President Bush. The American Geophysical Union awarded Cicerone its James B. Macelwane Award in 1979 for outstanding contributions to geophysics by a young scientist and its 2002 Roger Revelle Medal for outstanding research contributions to the understanding of Earth's atmospheric processes, biogeochemical cycles, and other key elements of the climate system. In 2004, the World Cultural Council honored him with the Albert Einstein World Award in Science. In addition to the National Academy of Sciences, Cicerone is a member of the American Academy of Arts and Sciences, the American Philosophical Society, the Accademia Nazionale dei Lincei, the Russian Academy of Sciences, and the Korean Academy of Science and Technology. He has served as president of the American Geophysical Union, the world's largest society of earth scientists. Cicerone was educated at the Massachusetts Institute of Technology (BS in electrical engineering) and the University of Illinois at Champaign-Urbana (MS, PhD in electrical engineering, with a minor in physics). In his early career, he was a research scientist and held faculty positions in electrical and computer engineering at the University of Michigan. In 1978 he joined the Scripps Institution of Oceanography at the University of California, San Diego as a research chemist. From 1980 to 1989, he was a senior scientist and director of the Atmospheric Chemistry Division at the National Center for Atmospheric Research in Boulder, Colorado. In 1989 he joined the University of California, Irvine (UC Irvine), where he was founding chair of the Department of Earth System Science and was appointed the Daniel G. Aldrich Professor of Earth System Science. As Dean of the School of Physical Sciences from 1994 to 1998, he recruited outstanding faculty and strengthened the school's curriculum and outreach programs. Immediately prior to his election as Academy president, Cicerone served as Chancellor of UC Irvine from 1998 to 2005, a period marked by a rapid rise in the academic capabilities of the campus.

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**Lydia Villa-Komaroff**  
**Vice-Chair, Committee on Women in Science, Engineering, and Medicine**  
**Co-founder and Board Member**  
**Cytonome/ST, LLC**

Lydia Villa-Komaroff is co-founder and a board member of Cytonome/ST (“Cytonome”), a company developing and manufacturing purpose-built cell sorters. She received her BA from Goucher College and her PhD in Cell Biology from MIT; her advisors were David Baltimore and Harvey Lodish. As a postdoc in Walter Gilbert’s laboratory, she was lead author of a landmark paper reporting the first synthesis of mammalian insulin in bacterial cells. Villa-Komaroff held research positions at Harvard University, the University of Massachusetts Medical Center, Cold Spring Harbor Laboratories, Children's Hospital, Boston and she published over 70 research articles and reviews. As an administrator she served as Vice President for Research at Northwestern University in Illinois, Vice President for Research and Chief Operating Officer of the Whitehead Institute (Cambridge, MA), and Chairman of the Board of Transkaryotic Therapies, Inc. Villa-Komaroff has served on committees for NSF, National Institute of Health, and the National Academies of Science and Engineering. She was a member of the US delegation to the Asian-Pacific Economic Conference-Women and the Economy Forum held in Russia (2012). She recently co-chaired a sub-committee that planned and conducted the workshop “Seeking Solutions: Maximizing American Talent by Advancing Women of Color in Academia.” She currently serves on the Board of the Massachusetts Life Science Center (Gubernatorial appointment) and the Board of Directors of ATCC, an independent, private, nonprofit biological resource center and research organization.

**Claude Steele**  
**Executive Vice Chancellor and Provost**  
**University of California, Berkeley**

Claude M. Steele is an American social psychologist and the Executive Vice Chancellor and Provost (EVCP) at University of California, Berkeley. Reporting to and working in close partnership with the Chancellor, the EVCP plays a critical role in developing and implementing UC Berkeley's vision and priorities and is the Chancellor's leading senior executive responsible for their execution and implementation. As the chief academic officer of the Berkeley campus, the EVCP has leadership responsibility for the planning, development, implementation, assessment and improvement of all academic programs, policies and supporting infrastructure. Claude M. Steele served as the I. James Quillen Dean for the School of Education at Stanford University from 2011 - 2014. As dean he led the school toward a deeper engagement in public education, including the renewal and expansion of a partnership between the school and the San Francisco Unified School District. From 2009 - 2011, Steele served as the 21st Provost of Columbia University, where he led and implemented academic policies and plans for the university, including a major initiative to enhance support for the basic sciences. While at Columbia, he was responsible for managing the work of the university's faculty, departments, research centers and institutes, as well as oversight of the university's budget and financial

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planning. He is best known for his work on stereotype threat and its application to minority student academic performance. His earlier work dealt with research on the self (e.g., self-image, self-affirmation) as well as the role of self-regulation in addictive behaviors. In 2010, he released his book, *Whistling Vivaldi and Other Clues to How Stereotypes Affect Us*, summarizing years of research on stereotype threat and the underperformance of minority students in higher education. Steele is a member of the National Academy of Sciences.

**Andrei Cimpian**  
**Associate Professor and Judy DeLoache Professorial Scholar of Psychology**  
**University of Illinois at Urbana-Champaign**

Andrei Cimpian is Associate Professor and Judy DeLoache Professorial Scholar of Psychology at the University of Illinois at Urbana-Champaign. One of his main areas of expertise is academic achievement and motivation. He has investigated gender stereotypes, people's beliefs about ability and talent, and the influence of praise and criticism on children's achievement. In a second line of work, Cimpian investigates children's cognitive development. In particular, he has studied the development of children's concepts and their ability to formulate explanations in order to make sense of the world. Cimpian's research has been funded by the NSF, the American Psychological Foundation and the Spencer Foundation, and has been published in some of the top journals in psychology and education. Media including *The New York Times*, *Washington Post*, and *The Economist* have covered his work. He is co-author of *Expectations of Brilliance Underlie Gender Distribution across Academic Disciplines*, a widely received study published in the January 16, 2015 issue of *Science*, Vol 347, no. 6219. Cimpian worked with co-lead author Sarah-Jane Leslie, professor of philosophy at Princeton; Meredith Meyer, an assistant professor of psychology at Otterbein University; and Edward Freeland, associate director of the Survey Research Center in Princeton's Woodrow Wilson School of Public and International Affairs. The study reported the results of a survey of almost 2000 faculty, postdoctoral fellows and graduate students, men and women, from 30 disciplines at notable public and private research universities in the United States. The study found that fewer women earned doctorates in disciplines that emphasize the importance of brilliance rather than hard work and dedication to success in that discipline.

**Douglas M. Haynes**  
**Professor of History**  
**Vice Provost for Academic Equity, Diversity and Inclusion**  
**Director, UCI ADVANCE Program**  
**University of California, Irvine**

Douglas M Haynes is a Professor of History and Vice Provost for Academic Equity, Diversity and Inclusion. Since 2006, he has directed the UC Irvine ADVANCE program. Originally funded by NSF, UC Irvine ADVANCE coordinates the campus commitment to equity and diversity for faculty and graduate students. He leads a team of senior faculty Equity Advisors who are tasked

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with monitoring faculty recruitment, coordinating mentoring for assistant professors, and serving as a confidential resource for workload and salary equity. Their collective efforts have contributed to the steady growth in the diversity of the professoriate, expansion of work-life integration resources, and augmented career advising in support of faculty retention and advancement. Among programs launched under the direction of Haynes include the Scholarship on Diversity Faculty Hiring Program, the Chancellor's ADVANCE Postdoctoral Fellowship Program, the Dependent Care Travel Grants Program, and the ADVANCE Spirit Awards for Inclusive Excellence. Throughout his tenure, Haynes has focused campus and national attention on the imperative to broaden the participation of women of color in STEM fields. In 2014 he contributed to a special issue of *Peer Review* entitled *Always Exceptional: Women and Women of Color Scientists in Historical Perspective* (Spring 2014 Vol.16, No. 2). As part of the UC Irvine ADVANCE Program, he served as program chair for the October 2012 roundtable "Building Capacity for Institutional Transformation: Women of Color in STEM/SBS Fields." A 2011 US Department of Education (FiFSE) award to Graduate Division spurred and reinforced these efforts in support of inclusive excellence. Haynes was a Co-PI on the UCI Diverse Educational Community and Doctoral Experience (DECADE) 2020 Initiative. The goals of the DECADE initiative are to increase the participation and degree completion of historically under-represented minority men and women in designated STEM fields while improving the doctoral experience for all students. He oversees a team of 30 faculty mentors who serve as champions for equity and diversity in their respective doctoral programs. Now in its fourth year, DECADE has contributed to noteworthy improvements in the participation of historically under-represented minority men and women as well as women in campus graduate programs. Haynes is a respected historian of modern medicine and science. His research and teaching interests are broad, spanning from the development of the medical profession and academic careers in relation to racial and gender politics, comparative health care systems in the United Kingdom and the United States, and the representations of disease and illness in the mass media.

**Jennifer Chayes**

**Member, Committee on Women in Science, Engineering, and Medicine**

**Distinguished Scientist, and Managing Director**

**Microsoft Research New England and Microsoft Research New York City**

Jennifer Tour Chayes is Distinguished Scientist and Managing Director of Microsoft Research New England in Cambridge, Massachusetts, which she co-founded in 2008, and Microsoft Research New York City, which she co-founded in 2012. Before joining Microsoft in 1997, Chayes was for many years Professor of Mathematics at UCLA. Chayes is the author of over 125 academic papers and the inventor of over 30 patents. Her research areas include phase transitions in discrete mathematics and computer science, structural and dynamical properties of self-engineered networks, graph algorithms and algorithmic game theory. Chayes received her B.A. in biology and physics at Wesleyan University, where she graduated first in her class, and her Ph.D. in mathematical physics at Princeton. She did her postdoctoral work in the Mathematics and Physics Departments at Harvard and Cornell. She is the recipient of a National Science Foundation Postdoctoral Fellowship, a Sloan Fellowship, and the UCLA

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Distinguished Teaching Award. Chayes has been the recipient of many leadership awards including the Leadership Award of Women Entrepreneurs in Science and Technology, the Women Who Lead Award, and the Women of Leadership Vision Award of the Anita Borg Institute. She has twice been a member of the Institute for Advanced Study in Princeton. Chayes is a Fellow of the American Association for the Advancement of Science, the Fields Institute, the Association for Computing Machinery, and the American Mathematical Society, and an Elected Member of the American Academy of Arts and Sciences.