Advance Registration is Now Open

The 2018 meeting theme highlights the critical roles of academia, government, and industry in moving ideas into innovations.

See Inside for Details:

- President’s Address / Registration Rates
- Plenary Lectures / Topical Lectures
- Seminars / Session Tracks / Flash Talk Program

aaas.org/meetings
Dear Colleague:

In these changing times, it is critical that academia, government, and industry continue to work together to move ideas into innovative advancements. This is why the theme of the 2018 AAAS Annual Meeting is **Advancing Science: Discovery to Application**.

On behalf of the AAAS Board of Directors, I urge you to join us in Austin February 15-19, where this theme will be explored through interdisciplinary scientific sessions, renowned speakers, and one-on-one discussions. The AAAS Annual Meeting is the most widely reported global science gathering and the premier event at which you can network with future collaborators across disciplines.

We look forward to seeing you in Austin. Registration and housing details are now available online.

*Susan Hockfield*
AAAS President
President Emerita and Professor of Neuroscience, Massachusetts Institute of Technology

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**PRESIDENT’S ADDRESS**

**Susan Hockfield**
Thursday, February 15

Dr. Susan Hockfield served as president of the Massachusetts Institute of Technology from 2004 to 2012. As the first woman and the first biologist in that role, she highlighted the importance of building diversity all along the talent pipeline. She fostered cross-disciplinary, cross-institutional, and cross-national initiatives, among them the Koch Institute for Integrative Cancer Research, the MIT Energy Initiative, and the Massachusetts Green High-Performance Computing Center, and she co-chaired the White House’s Advanced Manufacturing Partnership. By expanding MIT’s international education and research activities, including the launch of edX, she amplified MIT’s global engagement. Hockfield avidly advocates increasing interactions across the academy, industry, and government.

Hockfield earned her Ph.D. in anatomy and neuroscience from the Georgetown University School of Medicine. She was a National Institutes of Health postdoctoral fellow at the University of California, San Francisco, and a member of the scientific staff at the Cold Spring Harbor Laboratory in New York before joining the faculty at Yale University in 1985. At Yale, Hockfield was named the William Edward Gilbert Professor of Neurobiology and served as dean of the Yale University Graduate School of Arts and Sciences and then as provost of the university.

Hockfield was among the first scientists to apply molecular biology to neuroscience, using monoclonal antibodies to study brain structure and development. She demonstrated that early experience leads to lasting changes in the molecular structure of the brain and discovered a gene involved in the spread of brain cancer cells into healthy brain tissue.

Dr. Hockfield became a member of AAAS in 1975, was elected as a Fellow in 2005, and currently serves as president of AAAS.
PLENARY LECTURES

Ellen Ochoa
Director, Johnson Space Center, National Aeronautics and Space Administration, Houston, TX

The International Space Station: A Laboratory in Space
Friday, February 16

Cori Bargmann
President, Chan Zuckerberg Science, Palo Alto, CA

The Chan Zuckerberg Initiative: Accelerating Science
Saturday, February 17

TOPICAL LECTURES

Friday, February 16

Jason De León
University of Michigan, Ann Arbor

Nina Kraus
Northwestern University, Evanston, IL

Nora Volkow
National Institute on Drug Abuse, National Institutes of Health, Bethesda, MD

Saturday, February 17

Thomas Maina Kariuki
African Academy of Sciences, Nairobi, Kenya

Jed S. Rakoff
U.S. District Court for the Southern District of New York, New York City

SARTON MEMORIAL LECTURE IN THE HISTORY AND PHILOSOPHY OF SCIENCE

Bruce J. Hunt
University of Texas, Austin

Sunday, February 18

James P. Allison
University of Texas M.D. Anderson Cancer Center, Houston

Katharine Hayhoe
Texas Tech University, Lubbock

JOHN P. MCGOVERN AWARD LECTURE IN THE BEHAVIORAL SCIENCES

Robert A. Bjork
University of California, Los Angeles

Updated program information will be posted on aaas.org/meetings as it becomes available.
Communicating Science
Science and technology are integral to modern life, and many critical decisions facing society require finding common ground between scientists and members of the public. This annual seminar focuses on different aspects and approaches to communicating science, always emphasizing both theory and practice. The sessions provide a forum for scientists, science communication and public engagement professionals, and social scientists whose research can inform best practices to share their expertise and learn from one another. Participants gain actionable knowledge and join a growing community focused on public engagement with science.

Organized by Emily Cloyd and Elana Kimbrell, AAAS Center for Public Engagement with Science, Washington, DC

Reaching Beyond the Science-Interested Public
Developing a Narrative About Your Data
Advocating for Public Engagement With Science

Ideas to Innovation
This seminar brings together a diverse group of sessions around the 2018 AAAS Annual Meeting theme, “Advancing Science: Discovery to Application.” Each of these panels highlights different ways scientific research translates into applications that serve society, and how the various sectors within the scientific enterprise collaborate to achieve this goal. One session focuses on materials research and manufacturing, sharing examples of how companies choose what to invest in, and how partnerships with academia and government have contributed to new technologies. Another session explores the stages of technology development and transfer across several areas of chemistry, describing impacts in the fields of energy, transportation, and public health. A third panel traces the path from laboratory research to treatments for neurodegenerative diseases, and a fourth discusses collaboration in national security and defense between government, academia, and private industry, which leads not only to technological advancement but also to improvements in how social science is applied to public policymaking.

Materials Research for Manufacturing: Lessons From Industry on New Product Development
Organized by Lynnette D. Madsen, Svedberg Science Inc., Falls Church, VA

Technological Applications of Chemistry: Stages of Development and Societal Impacts
Organized by Jonathan Sessler, University of Texas, Austin

From New Discoveries to New Treatments for Neurodegenerative Diseases
Organized by Benjamin Wolozin, Boston University School of Medicine, MA

The Role of National Security in Strengthening the Science and Technology Pipeline
Organized by Taeyjuana Lyons, U.S. Department of Defense, Alexandria, VA

The Future of Artificial Intelligence
Artificial intelligence has potential applications and implications across nearly all areas of life and science. Convening three leaders in the field, one session addresses landscape-level questions of how artificial intelligence research and development has grown to where it is today and how it will meet future challenges to progress. One session demonstrates how artificial intelligence can improve water resource management decisions, and another addresses how to develop artificial intelligence technologies in socially responsible ways. A fourth session focuses on areas where humans will work with machines rather than be replaced by them, exploring how the unique strengths of each can be leveraged to maximize effectiveness.

Advancing Artificial Intelligence: From the Lab to the Street
Organized by Henry Kautz, University of Rochester, NY

Finding Water Management Solutions With Artificial Intelligence
Organized by Suzanne A. Pierce, Texas Advanced Computing Center, Austin; Yolanda Gil, University of Southern California, Marina del Rey

The Fourth Industrial Revolution: Supporting Societal Needs With Artificial Intelligence
Organized by Claire Craig, The Royal Society, London, United Kingdom

Artificial Intelligence Augmenting Not Replacing People
Organized by Ann Drobot, Computing Community Consortium, Washington, DC; Gregory Hager, Johns Hopkins University, Baltimore, MD
Diversity and Inclusion
Broadening access to science and scientific careers, and supporting equity in treatment as well as opportunity are critical to individual civil rights, although they also benefit science and society at large. These efforts include both outreach and recruitment of historically marginalized groups (such as people with disabilities, underrepresented minorities, women, and those identifying as LGBTQ+), as well as changes to the culture and structure of scientific institutions and endeavors to ensure these individuals are accepted, able to thrive, and are reflected in how science is viewed and conducted. This seminar convenes sessions discussing various aspects of STEM diversity and inclusion to share projects and data and gather additional perspectives on the range of ways to achieve these goals through funding, programs, and everyday action.

A More Inclusive Science: Examples, Tools, and Strategies
Organized by Jarita Holbrook, National Science Foundation, Arlington, VA

Changing Expectations: The Future of Careers in STEM
Organized by Claire Craig, The Royal Society, London, United Kingdom

Communication Challenges and Opportunities for Women in STEM
Organized by Christine O’Connell, Alan Alda Center for Communicating Science, Stony Brook, NY; Amy Landis, Colorado School of Mines, Golden

LGBTQ+ Identities in STEM Fields: Research and Implications
Organized by Rochelle Diamond, National Association of Gay and Lesbian Scientists and Technical Professionals, Pasadena, CA; Allison Mattheis, California State University, Los Angeles

Managing Innovation
Speakers in this flash talk session discuss the range of ways research and technology development can be fostered and regulated. One talk focuses on a public-private partnership, another on a national government effort, and a third on the web of existing and potential options for managing one important area of science. After these short talks, all attendees participate in a group discussion about strategies and considerations for efficiently and effectively encouraging innovation.

Technology to Serve the World
This session brings together flash talks oriented toward the interface between technological advances and societal needs. Speakers share a diversity of topics, from space technology to medicine-quality screening to applying the Internet of Things in agriculture. Each considers how these technologies serve the public good in just and equitable ways. After these short talks, a group discussion provides an opportunity to learn more about the specific technologies and projects, as well as consider broader questions about technology development and its benefits.

Advocating for Science
These flash talks share a variety of motivations and strategies for engaging in science policy and science advocacy. Topics include a program promoting the value of science to society as a method of garnering political support, and research conducted during the March for Science to help place the event in a larger context and examine its outcomes. Another speaker will provide action-oriented tips for researchers interested in policy engagement. After these short talks, all participants join for a 30-minute group discussion.

Communication and Perception
This session considers human communication from anthropological, linguistic, and cognitive perspectives. It touches on continuing studies and theories of how language evolved, how our speech affects the way we perceive and receive others, and the science communication implications of research on how humans reason, process information, and make decisions. After three short talks, a 30-minute discussion provides an opportunity for all participants to engage with the speakers and one another.
SESSION TRACKS

Organizers are listed under session titles.

BIOLOGY AND CHEMISTRY

Applying Conservation Genetics and Genomics to Wildlife and Fisheries Management
Organized by Abraham J. Miller-Rushing, Acadia National Park, Bar Harbor, ME; Kelly LaRue, Jackson Laboratory, Bar Harbor, ME

Applying Insights From Animal Behavior to Address Global Challenges
Organized by Vanessa Ezenwa, University of Georgia, Athens; John Swaddle, College of William and Mary, Williamsburg, VA

Applying Mass Spectrometry to Understanding Complex Cellular Processes
Organized by Livia Eberlin and Jennifer Brodbelt, University of Texas, Austin

Assessing Risk From Chemical Exposures: Advances in Technology and Gaps in Application
Organized by Ellen Mantus, U.S. National Academies of Sciences, Engineering, and Medicine, Washington, DC; David C. Dorman, North Carolina State University, Raleigh

Constructing Plant Microbiomes to Improve Reproducibility of Experiments
Organized by Karsten Zengler, University of California, San Diego; Trent Northen, Lawrence Berkeley National Laboratory, Berkeley, CA

Future Products of Biotechnology and Needs for Risk Analysis Science
Organized by Karla Lane, U.S. National Academies of Sciences, Engineering, and Medicine, Washington, DC

Opioid Addiction: Biology, Psychology, and Social Policy
Organized by Yasmin Hurd, Icahn School of Medicine at Mount Sinai, New York City

Synthetic Biology: From Technology Development to Risk Governance
Organized by Katherine Bowman, U.S. National Academies of Sciences, Engineering, and Medicine, Washington, DC; Igor Linkov, U.S. Army Engineer Research and Development Center, Concord, MA

The Science of Art Conservation: Preserving Cultural Heritage Objects
Organized by Eric Breitung, Metropolitan Museum of Art, New York City

CLIMATE AND THE ENVIRONMENT

Applying Earth Science Models and Satellite Observation to Benefit and Engage Society
Organized by Margaret Hurwitz and Danielle Wood, NASA Goddard Space Flight Center, Greenbelt, MD

Informing Mitigation and Adaptation Options With the Climate Science Special Report
Organized by Donald J. Wuebbles, University of Illinois, Urbana

Involving Stakeholders to Improve Outcomes: Lessons From the Climate Science Centers
Organized by Renee McPherson, University of Oklahoma, Norman; Katharine Hayhoe, Texas Tech University, Lubbock

Longer-Term Models for Arctic Sea Ice and Global Earth System Predictions
Organized by Sim James, U.S. National Earth System Prediction Capability Interagency Program, Silver Spring, MD; Jessie Carman, U.S. National Oceanic and Atmospheric Administration, Silver Spring, MD

Mathematics of Planet Earth: Superbugs, Storm Surges, and Ecosystem Change
Organized by Hans Engler and Hans Kaper, Georgetown University, Washington, DC

COMMUNICATION, LANGUAGE, AND CULTURE

Cultural and Linguistic Insights From the Study of Immigrant Languages
Organized by Joseph Salmons, University of Wisconsin, Madison

Evaluation and Best Practices for Training in Science Communication
Organized by Anthony Dudo, University of Texas, Austin

Exploring Public Fears and Myths: Vaccine Hesitancy, Food Safety Post-Fukushima, and Bacteria
Organized by Miyoko O. Watanabe, Japan Science and Technology Agency, Tokyo; Mark Ferguson, Science Foundation Ireland, Dublin

Gender in Translation: How Speech Communicates Sex, Gender Identity, and Sexuality
Organized by Nan Bernstein Ratner, University of Maryland, College Park

Natural and Cultural Resource Stewardship: New Scientific Insights and Audiences
Organized by Suzanne M. Thurston, AAAS Office of Education and Human Resources Programs, Washington, DC

Strategies for Communities and Scientists to Collaborate Effectively
Organized by Cathryn A. Manduca, Carleton College, Northfield, MN

The Impact of Sputnik on Science, Technology, and Public Opinion in the United States
Organized by Jon D. Miller, University of Michigan, Ann Arbor

Understanding and Responding to Climate Change Denial
Organized by Heather Akin, University of Missouri, Columbia; Matthew H. Slater, Bucknell University, Lewisburg, PA

Visual, Attentional, and Gestural Foundations of Signed Languages
Organized by Richard P. Meier, University of Texas, Austin

DATA AND COMPUTING

Estimating the Prevalence of Human Trafficking in the United States
Organized by Theresa L. Harris, AAAS Scientific Responsibility, Human Rights and Law Program, Washington, DC; Davina Durgana, Walk Free Foundation, Great Falls, VA

Experiencing the Future Internet: User-Centered Social Television and Multimedia
Organized by David Wizel and Agata Stasiak, European Commission, Brussels, Belgium

Empirical Findings on Science Fairs: Experiencing the Nature of Science
Organized by Frederick Grinnell, University of Texas Southwestern Medical Center, Dallas

Evidence for More Versatile Graduate Education and Academic Culture
Organized by Linda Hyman, Boston University, MA; Muriel Poston, Pitzer College, Claremont, CA

Overcoming Barriers to Change: Applying Evidence-Based STEM Teaching Strategies
Organized by Emily Miller, Association of American Universities, Washington, DC

Understanding Your Roots: STEM Diversity and an Evidence-Based Curriculum
Organized by Elizabeth Wright and Nina Jablonski, Pennsylvania State University, University Park

Women in STEM at Historically Black Institutions: South Africa and the United States
Organized by Lindiwe Gama and Cecil Masoka, South African Department of Science and Technology, Pretoria

The Science of Art Conservation: Preserving Cultural Heritage Objects
Organized by Eric Breitung, Metropolitan Museum of Art, New York City

Classroom to Career

The Science of Art Conservation: Preserving Cultural Heritage Objects
Organized by Eric Breitung, Metropolitan Museum of Art, New York City

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Exploring Universal and Industrial Quantum Computing
Organized by Charles W. Clark, Joint Quantum Institute, Gaithersburg, MD; Daniel Rogers, Terbium Labs, Baltimore, MD

How Honey Bees Set Web Servers Abuzz

Linking Technology and Infrastructure for Public Safety and Disaster Management
Organized by Ann Drobnis, Computing Community Consortium, Washington, DC; Daniel Lopresti, Lehigh University, Bethlehem, PA

Prospects for Long-Term Information Security in the Face of Quantum Computing
Organized by Scott Aaronson, University of Texas, Austin; Charles W. Clark, Joint Quantum Institute, Gaithersburg, MD

Transforming Cities, Transportation, and Agriculture With Intelligent Infrastructure
Organized by Ann Drobnis, Computing Community Consortium, Washington, DC; Elizabeth Mynatt, Georgia Institute of Technology, Atlanta

Using Wearable Device Data to Analyze and Improve Physical Activity and Health
Organized by Raymond Carroll, Texas A&M University, College Station

ENERGY

A Sustainable Energy Future With Next-Generation, Low-Cost Solar Cells
Organized by Juan-Pablo Correa-Baena, Massachusetts Institute of Technology, Cambridge; Michael Saliba, Federal Institute of Technology, Lausanne, Switzerland

Addressing Systemic and Societal Factors in Germany’s Energy Transition
Organized by Stefan Stückrad, Institute for Advanced Sustainability Studies, Potsdam, Germany

Breakthroughs in Cellulosic Biomass and Transportation Fuels
Organized by Elizabeth Hood, Arkansas State University, Jonesboro

Economic and Environmental Effects of Public-Private Partnerships in Biotechnology
Organized by Sarah Black and Eleni Zika, Bio-Based Industries Joint Undertaking, Brussels, Belgium

Energy-Enabling Materials and the Smart Cities of Tomorrow
Organized by Olga Rio and Luca Polizzi, European Commission, Brussels, Belgium

ADVANCE REGISTRATION RATES

<table>
<thead>
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<th>Category</th>
<th>AAAS Member</th>
<th>New Member</th>
<th>Non-Member</th>
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<tr>
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<td>$310</td>
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<td>$220</td>
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</table>

Rates for members in good standing
Includes a year of AAAS membership
Rates for all other attendees

aaas.org/meetings
Solving Materials Science Challenges to Shape Our Energy Future
Organized by Peter Genzer and James Misewich, Brookhaven National Laboratory, Upton, NY

**ENGINEERING AND TECHNOLOGY**

Advancing Biopharmaceutical Manufacturing With Public-Private Partnerships
Organized by Mike Molnar, U.S. National Institute of Standards and Technology, Gaithersburg, MD

Analyzing Picasso: Scientific Innovation, Instrumentation, and Education
Organized by Marc Walton, Northwestern University, Evanston, IL; Francesca Casadio, Art Institute of Chicago, IL

Biomedical Sensors: Advances in Health Monitoring and Disease Treatment
Organized by Qiaoqiang Gan, State University of New York, Buffalo; Zakya Kafafi, Lehigh University, Bethlehem, PA

Closing the Innovation Gap Between Research and Industry
Organized by Kaoru Natori, Okinawa Institute of Science and Technology Graduate University, Japan

Future-Generation Cars and Drivers: Research, Moving to Market, and Policymaking
Organized by Ingrid Skogsmo, European Commission, Brussels, Belgium

Gateway to Discovery: Research Teams Exploring the Edge of Technical Feasibility
Organized by Ben Verschueren, General Electric Global Research, Niskayuna, NY

Harnessing the Transformative Potential of Photonics Research and Innovation
Organized by Alex van Nieuwland, EuroTech Universities Alliance, Brussels, Belgium; Sandra M.J. Buys, Eindhoven University of Technology, Netherlands

Improvements in Earthquake Science and Risk Reduction
Organized by John Anderson, University of Nevada, Reno; William Savage, Seismological Society of America, Las Vegas, NV

Improving Efficiency in Manufacturing With Information and Communications Technology

Oil and Water Do Mix: The Fate of Dispersed Oil Droplets in the Sea
Organized by Edward Buskey, University of Texas Marine Science Institute, Port Aransas

Successful Innovation and Commercialization in Industrial Science and Technology
Organized by William Provine, DowDuPont, Wilmington, DE

The Semiconductor Industry: Sustained Collaboration in Pre-Competitive Research
Organized by Charles Sodini, Massachusetts Institute of Technology, Cambridge; Zoran Zvonar, Analog Devices, Wilmington, MA

Using Real-Time GPS for a Global Tsunami Early Warning System
Organized by Michael Angove, U.S. National Oceanic and Atmospheric Administration, Silver Spring, MD; Gerald Bawden, U.S. National Aeronautics and Space Administration, Washington, DC

**GLOBAL COLLABORATION**

Addressing Migration Crises With Science Diplomacy
Organized by Jan Marco Müller, International Institute for Applied Systems Analysis, Laxenburg, Austria

Building Research Capacity as a Critical Component of International Development
Organized by Matt Goode, U.K. Research and Innovation, Swindon, United Kingdom

Cuban Biomedical Science: The Role of Science Diplomacy in Translating Cures
Organized by Mark Rasenick, University of Illinois College of Medicine, Chicago

Embracing International Partnerships to Achieve Science-Based Development in Kuwait
Organized by Ameena Farhan, Kuwait Foundation for the Advancement of Sciences, Sharq

Instruments of Science and Diplomacy: The Work of International Science Institutions
Organized by Jan Marco Müller, International Institute for Applied Systems Analysis, Laxenburg, Austria

Issues and Impacts of U.S. Global Food Security Policy and Research
Organized by Nora Lapitan, and Jerry Glover, U.S. Agency for International Development, Washington, DC

Science for Sustainable Development Goals: Key Lessons and Gaps
Organized by E. William Colglazier, AAAS Center for Science Diplomacy, Washington, DC

MEDICINE AND HEALTH

Additive Manufacturing and 3-D Printing: Medical Technology Applications and Impacts
Organized by Luca Poluzzi, European Commission, Brussels, Belgium

Advanced Technology for Oral Health Care: Diagnosis, Prevention, and Treatment
Organized by Janet Moradian-Oldak, University of Southern California, Los Angeles

Applying the Science of Genomics in Precision Medicine and Cancer Treatment
Organized by William Beck, University of Illinois, Chicago

Effective, Safe, and Underutilized: The HPV Vaccine From Development to Implementation
Organized by Joseph Margolick, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; Melinda Wharton, U.S. Department of Health and Human Services, Washington, DC

Emerging Cancer Immunotherapies: Challenges of Developing Modality-Specific Drugs
Organized by Cris Kampschroer, Pfizer Inc., Groton, CT; Gautham Rao, Genentech Inc., South San Francisco, CA

Emerging Epidemic Pathogens: Basic, Translational, and Social Science
Organized by Gerald Keusch, National Emerging Infectious Diseases Laboratory, Boston, MA

Emulating Human Biology: Organ Chips for Drug Development and Personalized Medicine
Organized by Geraldine Hamilton, Emulate Inc., Boston, MA

Evolutionary Arms Races: From Bacteria to Cancer
Organized by Susan M. Rosenberg, Baylor College of Medicine, Houston, TX

Faster Responses to Epidemics and Bioterrorism With Standardized Product Development
Organized by Jeffrey Fortman, U.S. Department of Defense, Washington, DC

Gene Editing for Xenogeneic Organ Production: Regenerating a Patient’s Transplantation Organ
Organized by Alison Van Eenennaam, University of California, Davis

Harnessing the Human Microbiome as a Tool for Prevention and Treatment of Disease
Organized by Wendy Cozen, University of Southern California, Los Angeles; Rob Knight, University of California, San Diego
Statistical and Computational Challenges in Genomics and Precision Medicine
Organized by Michael Boehnke, University of Michigan, Ann Arbor; Michael Epstein, Emory University School of Medicine, Atlanta, GA

NEUROSCIENCE
Advanced Data Analysis Techniques for Understanding Brain Function
Organized by Robert Kass, Carnegie Mellon University, Pittsburgh, PA

Brain Plasticity Revisited: How Special Is the Young Brain?
Organized by Barbara Landau, Johns Hopkins University, Baltimore, MD

Connecting Behavior and the Brain to Understand Mental Health
Organized by Nora Newcombe, Temple University, Philadelphia, PA

New Technologies Emerging From the BRAIN Initiative
Organized by Walter J. Koroshetz, U.S. National Institutes of Health, Bethesda, MD

Optimal Aging and Mechanisms of Neurocognitive Enrichment
Organized by Denise Park, University of Texas, Dallas

“‘To Sleep, Perchance to Dream’: Rewiring the Brain During Sleep
Organized by Ted Abel, University of Iowa, Iowa City

Uncovering Novel Epigenetic Modifications in Neuropsychiatric Diseases
Organized by Tracy Bale, University of Pennsylvania School of Veterinary Medicine, Philadelphia

PHYSICS AND ASTRONOMY
A Universe of Discoveries: Progress in Astronomy, Statistics, and Machine Learning
Organized by Chad Schafer, Carnegie Mellon University, Pittsburgh, PA

Asteroids for Research, Discovery, and Commerce
Organized by Martin Elvis, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA

Capturing Dark Matter With Quantum Devices
Organized by Maria Spiropulu, California Institute of Technology, Pasadena

Exoplanets and Telescopes: Discovering and Characterizing Worlds Beyond Our Solar System
Organized by Jennifer Wiseman, NASA Goddard Space Flight Center, Greenbelt, MD

Innovation in 2-D: Discovering Novel Materials and Applications
Organized by Eva Andrei, Rutgers, The State University of New Jersey, Piscataway

Investigating the Mysteries of Antimatter
Organized by Seoko Okada, High Energy Accelerator Research Organization, Tsukuba, Japan; Arnaud Marsollier, European Organization for Nuclear Research, Geneva, Switzerland

Revolutionizing Ultrasound Applications for Treating Disease
Organized by Mark Hamilton, University of Texas, Austin; Joel Moberly, University of Mississippi, University

Scientific and Engagement Outcomes of the 2017 Total Solar Eclipse
Organized by Angela Speck, University of Missouri, Columbia; Jay Pasachoff, Williams College, Williamstown, MA

The Chemistry and Physics of Nascent Planetary Systems
Organized by Mark T. Adams, National Radio Astronomy Observatory, Charlottesville, VA

The Future of Humans in Space: Commercialization and Democratization
Organized by Amanda Arnold, Arizona State University, Washington, DC

The Technological Applications of Glass: From Smartphones to Eagle-Eye Vision
Organized by Barbara Jones, IBM, San Jose, CA

POLICY
Balancing Facts and Values in Public Policymaking
Organized by Milena Raykovska, European Commission Joint Research Center, Brussels, Belgium

Building Public Trust and Fostering Innovation With Transparency
Organized by Matt Goode, U.K. Research and Innovation, Swindon, United Kingdom

Exploring Perspectives on Open Science and Impacts on Scientific Discovery
Organized by Ruth Francis and Shane Canning, F1000, London, United Kingdom

Gene Editing and Human Identity: Promising Advances and Ethical Challenges

Industry and Research Infrastructures as Co-Creators of Innovation
Organized by Jana Pavlic, European Molecular Biology Laboratory, Heidelberg, Germany; Antonio Di Giulio, European Commission Directorate-General for Research and Innovation, Brussels, Belgium

Recommendations of the U.S. Commission on Evidence-Based Policymaking
Organized by Lucas Hitt, Commission on Evidence-Based Policymaking, Washington, DC

Reimagining the Innovation Ecosystem: Experiments to Maximize the Impact of Hard Tech

Research and Policy on Voter ID Laws and Voter Participation
Organized by David Marker, Westat, Rockville, MD

Science Activism: Advancing Science in a New Political Landscape
Organized by Carol L. Rogers, University of Maryland, Washington, DC

Science and the Fair Administration of Justice
Organized by Alicia Carriquiry, Iowa State University, Ames

Translating Engineering and Operations Analyses into Effective Homeland Security Policy
Organized by Sheldon Jacobson, University of Illinois, Urbana

When Regulation Drives Innovation
Organized by Gerald Epstein, Independent, Bethesda, MD

SOCIAL SCIENCES
Advancing Interdisciplinary Collaboration With Lessons From the Field
Organized by Nancy Nersessian, Harvard University, Cambridge, MA; Hanne Andersen, University of Copenhagen, Denmark

Behavioral Challenges and Solutions to Science-Based Action
Organized by Kateryna Wark, Harte Research Institute for Gulf of Mexico Studies, Corpus Christi, TX

Economic Analysis of Links Between Patents, Publications, and Policy
Organized by Pierre Azoulay, Massachusetts Institute of Technology Sloan School of Management, Cambridge; Bhaven Sampat, Columbia University, New York City

Implications of Evidence About Drug Use Hot Spots, Gerrymandering, and Gang Violence
Organized by William Alex Pridemore, State University of New York, Albany