

AAAS-DC CATEGORIES

▪ BRAIN AND BEHAVIOR

- 1. Chronic Illness Management and Cognitive Science: Translation Beyond Genes?
- 2. Crossing Borders in Language Science: What Bilinguals Tell Us About Mind and Brain
- 3. Cultural Evolutionary Dynamics of Cooperation
- 4. From Artificial Limbs to Virtual Reality: How the Brain Represents the Body
- 5. From Freud to fMRI: Untangling the Mystery of Stuttering
- 6. Hunter-Gatherers and Language Change
- 7. Molecules to Mind: Challenges for the 21st Century
- 8. Nature, Nurture, and Antisocial Behavior: Biological and Biosocial Research on Crime
- 9. Neurodegenerative Diseases: A Need for Multidisciplinary and Global Approaches
- 10. Science Behind Improved Foreign Language Expertise: Meeting the Global Challenge
- 11. The Science of Eating: Perception and Preference in Human Taste
- 12. Scientific and Ethical Issues for the Surgical Treatment of Psychiatric Disorders
- 13. Thinking About Thinking: How Do We Know What We Know?
- 14. Transatlantic Synergies To Promote Effective Traumatic Brain Injury Research

▪ CLIMATE CHANGE

- 15. Adapting to a Clear and Present Danger: Climate Change and Ocean Ecosystems
- 16. Can Reef Fisheries Take the Heat? Ecological and Economic Impacts of Climate Change
- 17. Changing Climate, Changing Approaches: Conservation in the Face of Climate Change
- 18. Climate Change: Altering the Physics, Ecology, and Socioeconomics of Fisheries
- 19. Comparing National Responses to Climate Change: Networks of Debate and Contention
- 20. How Climate Change Affects the Safety of the World's Food Supply
- 21. In Hot Water: Rising Public Health Concerns from Changing Ocean Condition
- 22. Limiting Climate Change: Reducing Black Carbon and Tropospheric Ozone Precursors
- 23. Multidisciplinary Research Infrastructures for Environmental Research
- 24. Rethinking Adaptation to a Changing Global Environment
- 25. Where Ocean Meets Land: Dynamic Shorelines in a Warming World

▪ EDUCATION

- 26. Aiming for Scientific Literacy by Teaching the Process, Nature, and Limits of Science
- 27. Celebrating Marie Curie's 100th Anniversary of Her Nobel Prize in Chemistry
- 28. The Challenge of Teaching Evolution in the Islamic World
- 29. Engaging Students in Undergraduate STEM Education with a Focus on Global Stewardship
- 30. Implementing the Vision and Change Report on Undergraduate Biology Education
- 31. Invisible Men? Addressing the Participation of Minority Males in Science and Engineering
- 32. Just-In-Time Support for Science Teaching: Asynchronous Web-Based Approaches
- 33. Learning Research and Educational Practice: How Can We Make Better Connections
- 34. Science Without Borders: Learning from TIMSS Advanced 2008
- 35. Teaching and Learning in the Digital Age: Reliable Resources Across the Disciplines
- 36. Transcending Gender and Ethnic Barriers to Full STEM Participation
- 37. The University of the Future

▪ EMERGING SCIENCE AND TECHNOLOGY

- 38. Aeroecology: Transcending Boundaries Among Ecology, Meteorology, and Physics
- 39. Biological Role and Consequences of Intrinsic Protein Disorder
- 40. Bioprinting: A Future of Regenerative Medicine
- 41. Building on the Legacy of Marie Curie
- 42. Chemically Speaking: How Organisms Talk to Each Other
- 43. Explaining Phase Transitions
- 44. First Physics from the Large Hadron Collider
- 45. Growth and Form in Mathematics, Physics, and Biology
- 46. Mathematics and Collective Behavior
- 47. Matter Wave Magic and Technology
- 48. Nanoworld, Megaproblems? The Impact of Nanotechnology on the Environment and Society
- 49. Sharper Images in Astronomy, Microscopy, and Vision Science Using Adaptive Optics
- 50. Superconductivity: From 1911 to 2021
- 51. Through the Looking Glass: Recent Adventures in Antimatter
- 52. Use of Lasers in Surgery, Regenerative Medicine, and Medical Device Fabrication

ENERGY

- 53. Biorefinery: Toward an Industrial Metabolism
- 54. Deepwater Horizon Oil Spill
- 55. Energy Efficiency in Europe and the United States: Success Stories and Potential
- 56. The Energy and Water Nexus: Turning a Double Problem into a Solution
- 57. Fractures Developing: The Science, Policy, and Perception of Shale Gas Development
- 58. If Termites Can Do It, Why Can't Humans?
- 59. Mathematics and Our Energy Future
- 60. Pillars, Polymers, and Computers: Creative Approaches for Electrical Energy Storage
- 61. Portraits of the California Energy System in 2050: Cutting Emissions by 80 Percent
- 62. Energy Efficiency in Europe and the United States: Success Stories and Potential
- 63. Powering the Planet: Generation of Clean Fuels from Sunlight and Water
- 64. Waste Not, Want Not: Waste as the World's Most Abundant Renewable Resource

GLOBAL COLLABORATION

- 65. Bridging Nations and Fields: East Asian Approaches to Science and Technology Policy
- 66. Bringing Innovation to International Development: New Actors, New Mechanisms
- 67. Can Global Science Solve Global Challenges?
- 68. Cross Border Responses to Global Challenges: Can Everybody Win?
- 69. Crossing Boundaries and Opening Borders: The European Research Council as Innovation
- 70. The Crowd and the Cloud: The Future of Online Collaboration
- 71. Education, Science, and Innovation as Tools for New Engagement with the Islamic World
- 72. Europe, Africa, and Asia: Rising on the Same Tide
- 73. Foreign Participation in National Technology Development Programs
- 74. International Territory: Science at Sea, Science in Space, and Science at the Poles
- 75. Joining Global Efforts in Post-Disaster Recovery and Reconstruction
- 76. Networks, Collaboration, and Research in a Non-Western Context: The Role of Technology
- 77. The Practice of Science Diplomacy in the Earth Sciences
- 78. Research Integrity in Global Perspective
- 79. Role of U.S. Federal Agencies in Building Scientific Capacity in Developing Countries

HUMAN BIOLOGY AND HEALTH

- 80. Anthropology and Global Health: Genes, Biology, and Culture
- 81. Diseases Without Borders: Tuberculosis and AIDS
- 82. Epigenetic Processes in Development: Gene-Environment Interplay
- 83. Evolutionary Personalized Medicine
- 84. Global Health Care: Advances and Challenges
- 85. The Human Body as Supra-Organism, Microbial Observatory, and Ecosystem at Risk
- 86. Humans Without Borders: Evolutionary Processes at Work in Humans and Their Relatives
- 87. Interfering with Gene Expression and Interfering with Disease
- 88. Medicine Safety in a World of Science Without Borders
- 89. One Health: From Ideas to Implementation, Rhetoric to Reality
- 90. Oral Clefts; Equal Opportunity Disorders
- 91. Oral Sex Is Sex and Can Lead to Cancer
- 92. Personalized Medicine: Moving Forward or Backward?
- 93. Reducing the Cost of Health Care Through Science and Engineering
- 94. The Surprising Influenza H1N1 Pandemic, Waves I and II: The Race To Vaccinate

LAND AND OCEANS

- 95. 2050: Will There Be Fish in the Ocean?
- 96. Beyond Lines on Maps: Marine Spatial Planning for a Dynamic World
- 97. Fishing for Solutions: Community Institutions for Effective Resource Management
- 98. From Practice to Theory and Back: Ecosystem Services and Marine Spatial Planning
- 99. Genetically Modified Crop Regulations: Safety Net or Insurmountable Obstacle?
- 100. Global Agricultural History: Mapping the Past for Modeling the Future
- 101. Global and Local Responses to the Nitrogen Challenge: Science, Practice, and Policy
- 102. Invasive Species: What Harm Do They Do?
- 103. Lost at Sea: Where Are the Humans in Marine Ecosystem Management?
- 104. Marine Spatial Planning: A Science-Based Tool for Conservation and the Economy
- 105. A New Vision for Research: Goals for the National Institute of Food and Agriculture
- 106. Norman Borlaug's Impact on World Agriculture; Will There Be a Second Green Revolution?
- 107. Plant Breeding Today: Genomics and Computing Advances Bring Speed and Precision

▪ THE SCIENCE ENDEAVOR

- 108. As Borders Dissolve, Which Standards and Mechanisms Prevail?
- 109. Crisis Averted? How a Critical Shortage in Helium-3 Was Good and Bad for Science
- 110. Design Thinking To Mobilize Science, Technology, and Innovation for Social Challenges
- 111. The Digitization of Science: Reproducibility and Interdisciplinary Knowledge Transfer
- 112. It Is Unethical Not to Do Research with Animals
- 113. Measurements as a Cornerstone of Global Trade and Quality of Life
- 114. Modeling Across Millennia: Interdisciplinary Paths to Ancient Socionatural Systems
- 115. Networks and Culture of Scientific and Technological Communities in Global Policy
- 116. Perspectives on Research and Development in the President's FY 2012 Budget Request
- 117. Publication Without Borders: Spanning Countries, Disciplines, Audiences, and Roles
- 118. Reaching a Global Standard in Research Integrity
- 119. Solving the Weight of Evidence Problem: A Way Forward?

▪ SCIENCE AND SOCIETY

- 120. Astronomical Pioneering: The Implications of Finding Other Worlds
- 121. Communicating Diversity in Science: Implications for Climate Change Denial
- 122. Communication Outside the Box
- 123. Crossing Boundaries with Citizen Science
- 124. Doing Good with Good OR: Applying Operations Research for Societal Impact
- 125. Earth Science and Evolution
- 126. Earthwatch and the HSBC Climate Partnership: A Unique Citizen Science Model
- 127. Evangelicals, Science, and Policy: Toward a Constructive Engagement
- 128. Innovative Strategies for Ensuring Access to the Benefits of Scientific Progress
- 129. Reaching Out to People in East-Asia on Green Issues: Policies and Practices
- 130. Science Without Borders and Media Unbounded: What Comes Next?
- 131. Surprise... It's Science! Reaching New Audiences in Unconventional Ways with Festivals
- 132. Techno-Optimism or Pessimism? Media Coverage of Quick Fixes for Global Climate Change
- 133. TV Meteorologists Communicating Climate Change
- 134. When Pollution Gets Personal: Ethics of Reporting on Human Exposures

▪ SECURITY

- 135. Atomic Detectives: Science Behind International Efforts To Combat Nuclear Terrorism
- 136. International Neighborhood Watch: Citizen Scientists and International Security
- 137. New START and Nuclear Winter: Climatic Consequences of the Nuclear Weapons Agreement
- 138. Promoting Security and Sustaining Privacy: How Do We Find the Right Balance?
- 139. Reconciling National Security Requirements with Research and Education
- 140. Science and Policy for Environmental Security in the Asia-Pacific Region
- 141. Space Weather: The Next Big Solar Storm Could Be a Global Katrina
- 142. Using Quantitative Content Analysis To Assess the Likelihood of Terrorist Violence
- 143. White-Blue Arctic: Promoting Cooperation and Preventing Conflict in the Arctic Ocean \

▪ SUSTAINABILITY

- 144. The Challenge of Measuring Sustainability
- 145. Data Cocktails for Biodiversity: Protected Area Management Without the Hangover
- 146. Estimating Earth's Human Carrying Capacity
- 147. How Can the World Feed 9 Billion People by 2050 Sustainably and Equitably?
- 148. If a "Culture of Growth" Is Unsustainable, What Should Change?
- 149. Mapping and Disentangling Human Decisions in Complex Human-Nature Systems
- 150. Resource Use and Ecological Resilience in a Tropical Socio-Ecological System
- 151. Social Networks and Sustainability
- 152. Telecoupling of Human and Natural Systems