

### WELCOME

#### Dear Colleagues:

Thank you for joining us at the prestigious 17th National Conference and Global Forum on Science, Policy, and the Environment: Integrating Environment and Health, organized by the National Council for Science and the Environment.

In 2007, the 7th NCSE Conference explored environmental and human health connections. Much has transpired since then, both in the scientific community and in the application of science. During that time, cutting-edge research has been published and policy-related initiatives have been launched that place greater emphasis on emerging issues and innovative solutions. Leaders in the public and private sectors are focusing on pioneering research, new methods of communication and education, and non-traditional approaches.

This year's conference on integrating environment and health will discuss over 20 topics where environment and health interface, including environmental and social justice, water quality and quantity, reducing impacts of toxic chemicals, extreme weather and resilience, ecosystem impacts, the food-energy-water nexus, public education, risk assessment, and many more.

Join your colleagues in science, technology, government, business, civil society, and education to explore the complex and interconnected challenges in environment and health; discuss cutting-edge issues; consider new technologies and best practices; and develop solutions for policy and practice.

#### Sincerely,

The Core Planning Group for the 2017 NCSE National Conference and Global Forum

Michelle Wyman	Dr. David Blockstein, Shelley Kossak	Dr. John Balbus
National Council for Science and the	National Council for Science and the	National Institute for Environmental
Environment	Environment	Health Sciences
Dr. Karim Ahmed	Surili Sutaria Patel	Dr. Patricia Gowaty
University of Connecticut Health Center	American Public Health Association	University of California - Los Angeles
Dr. Geoffrey Plumlee, Patricia Bright	Dr. Howard Frumkin	Dr. Gerald Geernaert
U.S. Geological Survey	University of Washington	U.S. Department of Energy
Dr. Bernard Goldstein	Dr. Val Beasley	Dr. Carlos Rodriguez-Franco
University of Pittsburgh	Pennsylvania State University	U.S.D.A. Forest Service
Dr. Rita Colwell University of Maryland	Dr. Alan Hecht, Dr. Wayne Cascio, Dr. Kenneth Olden U.S. Environmental Protection Agency	Patrick Monfort French National Center for Scientific Research
Monica Morello Centers for Disease Control and Prevention	Dr. Minh-Ha Pham, Pierre Michel, Dr. Mireille Guyader Embassy of France in the United States	Dr. Mary Erickson, Claudia Nierenberg, Juli Trtanj National Oceanic and Atmospheric Administration

Dr. Ann Bartuska

Represented by Kim Green, Dr. Isabel Walls, Dr. Naomi Fukagawa

U.S. Department of Agriculture

## **Table of Contents**

WELCOME	0
NCSE BOARD OF DIRECTORS	3
AGENDA	4
Monday, January 23, 2017	4
Tuesday, January 24, 2017	4
Wednesday, January 25, 2017	6
Thursday, January 26, 2017	8
Friday, January 27, 2017	9
SPEAKER BIOGRAPHIES	10
Keynotes	10
Plenary Panels	12
AWARDS	17
NCSE Lifetime Achievement Awards for Science, Service, and Leadership	17
John H. Chafee Memorial Lecture	18
SYMPOSIA AND WORKSHOP DESCRIPTIONS	19
Sessions Distributed by Track/Topic	19
Symposia A	20
Symposia B	25
Symposia C	29
Workshops	34
Symposia D	38
EXHIBITIONS AND POSTERS	41
Exhibitors	41
Posters	50
COLLABORATORS	57
STAFF AND VOLUNTEERS	57
NCSE PROGRAMS	59
Special Events for Students	58
New Initiatives At NCSE	62



The National Council for Science and the Environment (NCSE) is a not-for-profit organization dedicated to improving the scientific basis for environmental decision-making.

NCSE specializes in programs that foster collaboration between the diverse institutions and individuals creating and using environmental knowledge, including research, education, environmental, and business organizations as well as governmental bodies at all levels.

We work collectively to make science relevant to real world decision-making on critical environmental challenges.

While an advocate for science and its use, NCSE does not take positions on environmental issues. With a reputation for objectivity and non-partisanship, we are able to provide a neutral forum for all.

We invite you to explore our dynamic programs and initiatives.

NCSE is pleased to unveil a new logo and website that seeks to better reflect the work that the organization has been building for 26 years, as well as to represent the new and exciting initiatives we will be embarking on as we enter into the next year.

NCSE'S new logo, the blue orb, symbolizes our common planet and our mission. The nodes and connections within represent our diverse membership and community, and the collaborative nature of our work and leadership.

The new website, www.NCSEGlobal.org, highlights the NCSE community and the value of the work we do in research and education, leadership and community, and policy and decision-making.



### NCSE BOARD OF DIRECTORS



James L. Buizer, Board Chair Director, Climate Adaptation & International Development, Institute of the Environment, University of Arizona



A. Karim Ahmed, Ph.D. Secretary-Treasurer Adjunct Professor, University of Connecticut **Health Center** 



Anthony Michaels, Ph.D. Immediate **Past Chair** CEO, Midwestern BioAg



Michelle Wyman Executive Director, National Council for Science and the Environment



Michael P. Carvalho, Esq. Vice Chair Managing Partner, Carvalho & Associates, P.C.



Amy Luers, Ph.D. Director, Climate, Skoll Global Threats Fund



**Honorable Randy Johnson** Commissioner (ret.), Hennepin County, Minnesota



Dian Ogilvie, Esq. Former Senior Vice President, General Counsel, and Chief Environmental Officer, Tovota Motor North America, Inc.



Margaret S. Leinen, Ph.D. Director, Scripps Institution of Oceanography and Vice Chancellor for Marine Sciences, University of California, San Diego



Roderic Parnell, Ph.D. Professor of Earth Sciences and Environmental Sustainability, Northern Arizona University



Joyce Berry, Ph.D. Dean Emeritus, Warner School of Natural Resources, Colorado State University



**Governor Bill Richardson** Former Governor of New Mexico



Rita Colwell, Ph.D. Distinguished University Professor, University of Maryland and Johns Hopkins University



Honorable Barbara Sheen Todd Former Chairman, Board of Commissioners of Pinellas County, Florida



Jan Hartke, Esq. Consultant, William J. Clinton Foundation



Sandra Whitehouse, Ph.D. Senior Policy Advisor, Ocean Conservancy



Stephen P. Hubbell, Ph.D. Distinguished Professor, University of California, Los Angeles

### **AGENDA**

## Monday, January 23, 2017

11:00 - 3:30 Community College Alliance for Sustainability Education (CCASE) Winter Meeting Arlington (CCASE Members Only)

## Tuesday, January 24, 2017

8:00 am	Registration Open
Regency Foyer	Continental Breakfast
8:50 – 9:00 Regency Ballrooms	Welcome and Opening Remarks  James E. Buizer, Board Chair, National Council for Science and the Environment  Professor, University of Arizona
9:00 - 9:15 Regency Ballrooms	Science, Policy, and the Environment in 2017 Michelle Wyman, Executive Director, National Council for Science and the Environment
9:15 - 9:45 Regency Ballrooms	<b>Dr. Richard Jackson</b> , Professor, Department of Environmental Health Sciences, University of California, Los Angeles
9:45 - 10:45 Regency Ballrooms	<ul> <li>Environment and Health: A Decade of Progress and Looking Forward</li> <li>Dr. Howard Frumkin, Professor of Environmental and Occupational Health Sciences and Dean Emeritus, School of Public Health, University of Washington (Moderator and Speaker)</li> <li>Dr. Sam Myers, Director, Planetary Health Alliance</li> <li>Dr. Frederica Perera, Director, Columbia Center for Children's Environmental Health, Columbia University</li> </ul>
10:45 - 11:00	Break and Exhibitions Open
11:00 - 12:30	Symposia A
Potomac 5	1. Disasters, Degraded Ecosystem Services, and Human Health
Potomac 6	2. Healthy by Design: Communities, Food, Ecosystem Services, and Connectivity
Potomac 3	3. Preventing Children's Exposures to Environmental Health Hazards in Early Care
Potomac 4	4. Understanding Environmental Justice in Pursuit of Health Equity
Conference Theater	5. How to Build Cooperation Between Scientists and Public Managers
Tidewater 2	
	6. Educating About Climate Change Impacts on Health
Jefferson	<ul><li>6. Educating About Climate Change Impacts on Health</li><li>7. Energy Interactions Between Urban Built Environment and Micro-Climate</li></ul>
Jefferson Potomac 2	
	7. Energy Interactions Between Urban Built Environment and Micro-Climate
Potomac 2	<ol> <li>Energy Interactions Between Urban Built Environment and Micro-Climate</li> <li>U.S. and French Strategies for Translating Environment and Health Sciences into Policy</li> </ol>
Potomac 2 Potomac 1	<ol> <li>Energy Interactions Between Urban Built Environment and Micro-Climate</li> <li>U.S. and French Strategies for Translating Environment and Health Sciences into Policy</li> <li>Climate Data and Public Health: Mobilizing Adaptation Action</li> </ol>
Potomac 2 Potomac 1 Arlington	<ol> <li>Energy Interactions Between Urban Built Environment and Micro-Climate</li> <li>U.S. and French Strategies for Translating Environment and Health Sciences into Policy</li> <li>Climate Data and Public Health: Mobilizing Adaptation Action</li> <li>Water, Health, and Sustainability Education in the Community College</li> <li>Hogs, Health, and Humanity: Civic Engagement Around Public Health, Environmental Justice, and</li> </ol>

13. Family Planning, the Environment, and Development: What are the Linkages?

Tidewater 1

Fairfax 14. One Health: A Transdisciplinary Discussion

Roosevelt 15. Water and Seafood Safety: Cholera, Toxins, and Climate Change

Kennedy 16. Building Adaptive Capacity for Resilience in U.S. Community Water Systems

12:30 - 1:45 Luncheon: Meet a Mentor and Launch of NCSE Student Network

Washington A&B Understanding the New Climate of Disruption

Dan Carol, Senior Advisor, Beeck Center for Social Impact and Innovation, Georgetown University

(Lunch is provided for students and mentors.)

1:45 - 2:15 Prosperity Without Growth: Foundations for the Economy of Tomorrow

Regency Ballrooms Dr. Tim Jackson, Director, Centre for the Understanding of Sustainable Prosperity (CUSP),

University of Surrey

2:15 - 3:15 Tip of the Iceberg: Communities on the Frontline of Risk

 Patrick Breysse, Director, National Center for Environmental Health (NCEH) and Agency for Toxic Substances and Disease Registry (ATSDR), Centers for Disease Control and Prevention

• Honorable Catherine Pugh, Mayor, Baltimore, Maryland

 Dr. Octaviana Trujillo, Founding Chair and Professor, Department of Applied Indigenous Studies, Northern Arizona University

• **Dr. Jalonne White-Newsome**, Senior Program Officer, Environment Program, The Kresge Foundation

• **Mustafa Santiago Ali**, Senior Advisor to the Administrator for Environmental Justice & Community Revitalization, U.S. Environmental Protection Agency (*Moderator*)

3:15 - 3:30 Break

5:00 - 5:15

3:30 - 5:00 **Symposia B** 

Tidewater 2 1. One Health Approach to Environmentally Driven Emerging Diseases

Potomac 5 2. Nature-Based Health Promotion Across Diverse Populations

Potomac 4 3. Water, Infrastructure, and Health: Flint and Beyond

Potomac 3 4. Environmental Justice and Disposal of Toxic Wastes

Arlington 5. Microbiology of the Built Environment: Implications for Health and Design

Roosevelt 6. Megatrends and Human Health: Impacts of Urbanization and Demography

Lincoln 7. Integrated Neighborhood Approach: Disaster Management Activities in an Increasingly

Urbanized World

Potomac 6 8. Climate Change, Health, and Infectious Diseases: Towards an Ecosystem Approach

Potomac 2 9. Soil Health, Microbiomes, and Climate-Adaptive Agriculture

Potomac 1 10. Indigenous Peoples, Environment and Health

Kennedy
 Ocean Science and Technology: Comments on the Federal Research Plan
 Conference Theater
 Family Planning, Resilience, and Climate Change: Linkages and Evidence

*Jefferson* 13. Human Health Effects of Methane and Fracking

Break

5:15 - 6:15 Understanding and Preventing Climate Change Impacts on Ecosystems, Economy, and Health

Regency Ballrooms • Dr. Virginia Burkett, Associate Director, Climate and Land Use Change, U.S. Geological Survey

 Dr. Rita R. Colwell, Distinguished University Professor, University of Maryland - College Park and the Johns Hopkins University Bloomberg School of Public Health; Founder and Global Science Officer, CosmosID Bioinformatics Inc.

- Katharine L. Jacobs, Director, Center for Climate Adaptation Science and Solutions (CCASS), University of Arizona
- Juli Trtanj, Co-Chair, USGCRP Interagency Cross Cutting Group on Climate;
   One Health & Integrated Climate Research Lead, National Oceanic and Atmospheric Administration (NOAA)
- Richard Harris, Correspondent, National Public Radio (NPR) (Moderator)

6:15 - 8:00 Regency Foyer **Reception and Poster Presentations** 

### Wednesday, January 25, 2017

8:00 am Registration and Exhibition Open Regency Foyer Continental Breakfast

8:50 - 9:30 Regency Ballrooms Our Environment, Our Communities: Divided We Failed, United We Stand a Chance...

Dr. Maureen Lichtveld, Director, Center for the Gulf Coast Environmental Health Research,
Tulane University

9:30 - 10:30 Regency Ballrooms

#### Our Synthetic World: Endocrine Disrupting Chemicals and the Greening of Chemistry

- Dr. David Crews, Ashbel Smith Professor of Integrative Biology, University of Texas at Austin
- Dr. Andrea Gore, Professor, College of Pharmacy, University of Texas at Austin
- **Dr. Sarah Vogel**, Vice President for Health, Environmental Defense Fund (EDF)
- **Dr. Lynn Goldman**, Dean, Milkin Institute School of Public Health, George Washington University (*Moderator*)

10:30 - 11:15 Regency Ballrooms

#### NCSE Lifetime Achievement Awards for Science, Service, and Leadership

 Dr. Thomas E. Lovejoy, University Professor of Environmental Science and Policy, George Mason University

Presented by Dr. Rita Colwell, NCSE Board of Directors

• **Dr. Philip Landrigan**, Dean for Global Health, Mount Sinai School of Medicine *Presented by Dr. Karim Ahmed, NCSE Board of Directors* 

11:15 - 11:30 Break

11:30 - 1:00 **Symposia** C

Arlington 1. Minimizing Impacts from Pharmaceuticals in the Environment

Potomac 2 2. Earth Microbiome and Human Health

Washington A 3. Eutrophication, Harmful Algal Blooms, and Drinking Water Resources

Roosevelt 4. Positive Health Impacts from Green Power

Potomac 3 5. Envisioning Health and Sustainability

*Jefferson* 6. Improving Human Health in Cities: Urban Forestry and Stewardship

*Potomac 4* 7. One Health: Science Gaps at the Intersection of Health and Environment

Fairfax
 Washington B
 The Emerging Bioeconomy: Implications on Health and the Economy
 Climate Changes Health: The Public Health Perspective

Prince William 10. Human and Animal Heat Stress: New Models, Public Policy, and Research Hot Spots

11. Long-Term Effects of Developmental Exposures: Implication to Policy Potomac 1 Potomac 5 12. Education of Medical Professionals Tidewater 1 13. A Solution-Based Integrated Approach to Community Resilience and Mental Health Care Kennedy 14. Health Applications of NASA Satellite Remote Sensing Conference Theater 15. Environmental and Health Consequences of Extinction and Biodiversity Loss Lincoln 16. Co-Creating Transdisciplinary Research: Designing Integrative Education Potomac 6 17. Student Network Leadership Meeting Honorable Newt Gingrich, Speaker, U.S. House of Representatives (1995–1999) 1:00 - 2:30 Regency Ballrooms **Luncheon Address** (Lunch will be served) Introduction by Dr. Rita Colwell, NCSE Board of Directors Workshops 2:30 - 5:30 How Telling Stories about Our Work Can Help Us Do It Better Potomac 4 Washington B Uncovering Connections Between Healthy Ecosystems and Healthy Communities Potomac 2 Minimizing Impacts from Pharmaceuticals in the Environment 3. Potomac 6 Healthy by Design: Communities, Food, Ecosystem Services, and Connectivity 4. Tidewater 2 **Integrating Health and Sustainability** Potomac 1 Retooling Regulation: Integrating Energy and Environmental Planning Potomac 3 Building Local Capacity to Respond to the Impacts from a Changing Climate 7. Fefferson One Health: Science Gaps at the Intersection of Health and Environment 8. Water Availability, Quality, and Environmental Change: Implications for Human Health Washington A 9. 10. Co-Creating Transdisciplinary Research: Developing Skills for Crossing Boundaries LincolnRoosevelt 11. One Health: A Transdisciplinary Discussion Kennedy Mosquito Mappers: Citizen Scientist Action, Healthy Communities Potomac 5 13. Teaching and Learning about Environment and Health Prince William 14. Climate Change and Human Health: A Path Forward 5:30 - 6:00 Poster Presentations Regency Ballrooms John H. Chafee Memorial Lecture 6:00 - 6:30 Regency Ballrooms Governor Bill Ritter, Jr., Director, Center for the New Energy Economy, Colorado State University Presented by Michelle Wyman, Executive Director, NCSE Remarks by Georgia Chafee Nassikas

7:00 Film: Demain (Tomorrow)

Regency Ballrooms

Introduction by Dr. Minh-Hà Pham, Counselor for Science and Technology and Pierre Michel,

Science and Technology Attaché, Embassy of France in the United States

### Thursday, January 26, 2017

8:00 am Registration and Exhibitions Open Regency Foyer Continental Breakfast Professor Robert Barouki, Director, Toxicology Pharmacology and Cellular Signaling Unit, Institut 9:00 - 9:40 Regency Ballrooms National de la Santé et de la Recherche Médicale (Inserm) Introduction by James E. Buizer, NCSE Board of Directors 9:40 - 10:00 **Networking Break** Regency Ballrooms Symposium D 10:00 - 11:30 The Role of Academia in the Environmental and Health Nexus Potomac 3&4 Tidewater Environmental, Health, and Safety Impacts of Solar Panels Kennedy & Epidemic of Panic: Communicating Environmental Health Threats in a Social Jefferson Media Age Washington 4. Using Biophilia in the Built Environment to Address Human and Environmental Health Potomac 182 Climate Change and Child Health in the U.S. Roosevelt & Lincoln Growing Healthy, Sustainable Food Through Aquaculture Building Healthy Communities Through Prescribing a Little Nature Potomac 5&6 7. Regency Ballroom 8. Environmental Change, Food, and Health: Implications for the First 1,000 Days of Life Student Career Panel Conference Theater 9. Break 11:30 - 11:45 11:45 - 12:45 Integrating Environment and Health: Where Do We Go From Here? Regency Ballrooms Dr. Paul Anastas, Director, Center for Green Chemistry and Green Engineering, Yale University Dr. Georges Benjamin, Executive Director, American Public Health Association Dr. Jacqueline McGlade, Director, Science Division and Chief Scientist, United Nations **Environment Programme** Fuzz Hogan, Managing Editor, Editorial, Events and Communications Department, New America (Moderator) **Closing Remarks** 12:45 - 1:00 Academic-Federal Dialogue 2:00 - 5:00 **Presidents** (Additional Fee Required.) This exclusive meeting offers insights on the incoming Administration and Congress from inside and outside. The program provides unique opportunities for small group and individual discussions with federal agency leaders on their program priorities and funding opportunities. Welcoming Remarks 2:00 - 2:10

#### 2:10 - 2:50 What to expect from the Trump Administration and Congress - The View From the Inside

- Susan Bodine, Chief Counsel, United States Senate Committee on Environment and Public Works
- Representative: EPA Transition Team (Invited)

Michelle Wyman, Executive Director, NCSE

• Representative, House Committee on Science, Space and Technology (Invited)

## 3:00 – 3:50 Response to the Trump Administration and Congress – The View From a Scientific, Academic and Environmental Community

- Carl Maxwell, Governmental Affairs, American Chemical Society
- Christopher C. Carter, Legislative Director, Research, University of California, Office of Federal Governmental Relations
- Michael Halpern, Deputy Director, Center for Science and Democracy, Union of Concerned Scientists

4:00 - 5:00

Informal small group discussion at tables with program officers from agencies that fund environmental and energy research and education. Representing agencies include: NSF, DOE, NASA, NOAA, USDA/NIFA, EPA, U.S. Forest Service, State Department, Federal Highway Administration, and other agencies.

5:00 Roosevelt Reception for Academic-Federal Dialogue Attendees

### Friday, January 27, 2017

9:00 - 3:30 Council of Environmental Deans and Directors (CEDD) Winter Meeting Washington (CEDD Members Only)

### SPEAKER BIOGRAPHIES

### **Keynotes**

Understanding the New Climate of Disruption

Dan Carol, Senior Advisor, Beeck Center for Social Impact and Innovation, Georgetown University

Tuesday, January 24, 2017, 12:30 - 1:00 PM

Dan Carol is a nationally-recognized thought leader and innovator in the fields of civic tech, clean energy, and community-based solutions. He has three decades of experience with business, government, community, and foundation leaders to solve complex system problems with creative thinking, digital strategies, and direct collaboration. He has served as a Presidential Management Fellow, a member of the Clinton Global Initiative, and a senior campaign advisor to the Clinton-Gore 1992 and Obama-Biden 2008 campaigns.

Mr. Carol led CTSG, a 70-person online civic engagement company and software company, until 2004. He co-founded two clean energy acceleration groups (The Apollo Alliance and the Clean Economy Network), and served as strategic advisor to the Wireless Data Forum, the first trade association for the mobile apps industry. Mr. Carol served as the first-in-nation Director of a Governor's Office of Multi-State Initiatives, where he scaled innovative and bi-partisan performance partnerships in areas such as health and wellness, job creation, and infrastructure. He led the efforts to create the West Coast Infrastructure Exchange, a 2015 winner of the Harvard Ash Center award for government innovation.

#### Honorable Newt Gingrich, Speaker, U.S. House of Representatives (1995-1999)

Wednesday, January 25, 2017, 1:30 - 2:00 PM



Speaker Newt Gingrich is well known as the architect of the "Contract with America" that led the Republican Party to victory in 1994 by capturing a majority in the United States House of Representatives for the first time in forty years. He was a Republican candidate for president of the United States from 2011 to 2012. Dr. Gingrich served the 6th District of Georgia for twenty years. Before his election to Congress, Dr. Gingrich taught history and environmental studies at West Georgia College for eight years.

Dr. Gingrich is a Fox News contributor and the author of twenty-seven books, including 14 fiction and nonfiction *New York Times* best-sellers. Dr. Gingrich and his wife, Callista, host and produce historical and public policy documentaries. Recent films include *The First American* and *Divine Mercy*. He is a Senior Advisor at Dentons, the world's largest law firm, as well as a Senior Scientist at Gallup.

Dr. Richard Jackson, Professor, Department of Environmental Health Sciences, University of California, Los Angeles *Tuesday, January 24, 2017, 9:15 - 9:45 AM* 



Dr. Richard Jackson, a pediatrician, has served in many leadership positions in both environmental health and infectious disease with the California Health Department, including the State Health Officer. For nine years, he was Director of the Centers for Disease Control's (CDC's) National Center for Environmental Health in Atlanta and received the Presidential Distinguished Service Award. In October 2011, he was elected to the Institute of Medicine of the National Academy of Sciences. While in California, Dr. Jackson was instrumental in conceptualizing laws to reduce risks from pesticides, especially to farm workers and to children. While at CDC, he was a national and international leader, including leading the federal effort to "biomonitor" chemical levels in the U.S. population. He has

received the Breast Cancer Fund's Hero Award, as well as Lifetime Achievement Awards from the Public Health Law Association and the New Partners for Smart Growth. In October 2012 he received the John Heinz Award for Leadership in the Environment.

Prosperity Without Growth: Foundations for the Economy of Tomorrow

Professor Tim Jackson, Director of the Centre for the Understanding of Sustainable Prosperity (CUSP) and Professor of Sustainable Development, University of Surrey

Tuesday, January 24, 2017, 1:45 - 2:15 PM



Dr. Tim Jackson has been at the forefront of academic work on sustainability for over two decades and has undertaken numerous advisory roles on the social and economic dimensions of sustainability for business, government, civil society and inter-governmental agencies. The newly-awarded Centre for the Understanding of Sustainable Prosperity (CUSP) aims to explore the moral, cultural, social, political and economic dimensions of prosperity on a finite planet. Dr. Jackson currently also holds an ESRC Professorial Fellowship on Prosperity and Sustainability in the Green Economy (PASSAGE). Between 2004 and 2011, Dr. Jackson was Economics Commissioner on the UK Sustainable Development

Commission, where his work culminated in the publication of *Prosperity Without Growth: Economics for a Finite Planet*. He was awarded the Hillary Laureate for Exceptional International Leadership in 2016. In addition to his academic work, Dr. Jackson is an award-winning dramatist with numerous radio writing credits for the BBC.

## Professor Robert Barouki, Director, Toxicology Pharmacology and Cellular Signaling Unit, Institut National de la Santé et de la Recherche Médicale (Inserm)

Thursday, January 26, 2017, 9:10 - 9:40 AM



Robert Barouki is a Professor of Biochemist and Molecular Biology at the University Paris Descartes and head of the Inserm unit, "Toxicology Pharmacology and Cellular Signaling". He focuses on the impact of environmental contaminants on human health and the mechanisms of action involved in those effects. As head of the clinical metabolic biochemistry department, he has initiated and organized a shared mass spectrometry facility at the Necker hospital. His focus is on developing multiplex targeted proteomic and metabolomic assays, notably in the field of metabolic diseases and in toxicodynamics.

In a more general perspective, he has been involved in the networking of French and European research in the field of environment and health and he has a keen interest in communicating scientific concepts and data to a large audience.

Our Environment, Our Communities: Divided We Failed, United We Stand a Chance...

Dr. Maureen Lichtveld, Director, Center for the Gulf Coast Environmental Health Research, Tulane University

Wednesday, January 25, 2017, 9:00 – 9:30 AM



Maureen Lichtveld, MD, MPH has over 35 years of experience in environmental public health and is Professor and Chair, Department of Global Environmental Health Sciences, Tulane University, School of Public Health and Tropical Medicine. Her research integrates environmental health, health disparities, disasters, community-based participatory research, women's health, and environmental policy. She is Endowed Chair in Environmental Policy and Associate Director, Population Sciences, Louisiana Cancer Research Consortium.

Since 1988, she has served as IOM (NAM) consultant, and currently is a member of the U.S. Environmental Protection Agency (EPA) Scientific Advisory Board; the National Academy of Sciences (NAS) Roundtable on Environmental Health Sciences, Research, and Medicine; the National Advisory Environmental Health Sciences Council (NIH/NIEHS); and the Health Disparities Subcommittee, Advisory Committee to the Director, Centers for Disease Control and Prevention (CDC). She was elected Chair, Editorial Board, American Journal of Public Health and President, Hispanic Serving Health Professions Schools. In 2016, Dr. Lichtveld was inducted in the Johns Hopkins University Society of Scholars. During her 18-year tenure at CDC/ATSDR, Dr. Lichtveld was honored as CDC's Environmental Health Scientist of the Year. She was twice named Woman of the Year by the City of New Orleans for her contributions to science.

### **Plenary Panels**

#### Environment and Health: A Decade of Progress and Looking Forward

Tuesday, January 24, 2017, 9:45 - 10:45 AM



Howard Frumkin, DrPH, MPH, MD, is Professor of Environmental and Occupational Health Sciences at the University of Washington School of Public Health, where he served as Dean from 2010 until 2016. Previously, he directed the National Center for Environmental Health and Agency for Toxic Substances and Disease Registry (NCEH/ATSDR) at the U.S. Centers for Disease Control and Prevention (2005–10). Hewas Professor and Chair of Environmental and Occupational Health at Emory University's Rollins School of Public Health and Professor of Medicine at Emory Medical School (1990–2005). Dr. Frumkin is a Fellow of the American College of Physicians, the American College of Occupational and Environmental

Medicine, Collegium Ramazzini and the Royal College of Physicians of Ireland.



Samuel Myers, MD, MPH, is a Senior Research Scientist at the Harvard T.H. Chan School of Public Health and is Director of the Planetary Health Alliance. The PHA is a consortium of universities, NGOs, and other partners with a shared mission—supporting the growth of a rigorous, policy-focused, transdisciplinary field of applied research aimed at understanding and addressing the human health implications of accelerating anthropogenic change in the structure and function of Earth's natural system. Dr. Myers is teaching Harvard University's first course on planetary health. He also serves as a Commissioner on the Lancet-Rockefeller Foundation Commission on Planetary Health and was

recently awarded the Prince Albert II of Monaco—Institut Pasteur Award for research at the interface of global environmental change and human health.



Frederica Perera, DrPH, PhD, is Professor of Environmental Health Sciences and Director of the Columbia Center for Children's Environmental Health at Columbia University. Dr. Perera is internationally recognized for pioneering the field of molecular epidemiology, utilizing biomarkers to understand links between environmental exposures and disease. She is the author of over 350 publications, including 300 peer–reviewed articles. She has received numerous honors including, most recently, the Pearl Award and the Heinz Award for her lifetime achievement in research for the protection of children's health.

#### Tip of the Iceberg: Communities on the Frontline of Risk

Tuesday, January 24, 2017, 2:15 - 3:15 PM



Patrick Breysse, PhD, joined the Centers for Disease Control and Prevention (CDC) in December 2014 as the Director of NCEH/ATSDR. He came to CDC from Johns Hopkins University, where he served as Associate Chair for Educational Programs, Department of Environmental Health Sciences; Program Director, Industrial Hygiene Training Program; and co-Director, Johns Hopkins Center for Childhood Asthma in the Urban Environment. He is also a board certified Industrial Hygienist and an editorial review board member for the Journal of Exposure Science and Environmental Epidemiology.



Mayor Catherine Pugh was elected Baltimore's mayor in November 2016. She served as a member of the Baltimore City Council from 1999-2003. In 2005, she was appointed to the Maryland General Assembly, House of Delegates, where she served for one year before running for her Maryland Senate seat in 2006. She served as the Senator from 2007-2016, and was the Senate Majority Leader from 2015-2016. She currently serves as President of the National Black Caucus of State Legislators (NBCSL). Mayor Pugh is President of CEPugh and Company, the co-founder and Chair of the Baltimore Design School, and created the Fish Out of Water Project.



under NAFTA.

Octaviana V. Trujillo (Yaqui), PhD, is Founding Chair and Professor of the Department of Applied Indigenous Studies at Northern Arizona University (NAU) and teaches courses on Tribal Nation Building. Dr. Trujillo is the Co-PI (outreach) on the National Cancer Institute and the NAU research, education, and training co-director of the Center for American Indian Resilience (CAIR). She serves on local, national and international governing boards, including the Environmental Protection Agency (EPA), Governmental Advisory Committee (GAC), and the Commission on Environmental Cooperation created



**Jalonne L. White-Newsome, PhD**, is Senior Program Officer at The Kresge Foundation, a lecturer at The George Washington University, and an Adjunct Professor at Kettering University. Before joining Kresge in early 2016, Dr. White-Newsome served as Director of Federal Policy for West Harlem Environmental Action Inc. (WE ACT). Dr. White-Newsome currently serves on the board of U.S. Climate Action Network, the Health Environment Funders Network, and was recognized by Grist Magazine as "The 50 People You'll Be Talking About in 2016."



**Mustafa Santiago Ali** is a founding member of the EPA's Office of Environmental Justice (OEJ). He currently serves as the Assistant Associate Administrator and Senior Advisor to the Administrator for Environmental Justice and Community Revitalization. He also leads the Interagency Working Group on Environmental Justice (EJIWG), which breaks down silos and implements community-based collaborative strategies to address the impacts and opportunities that exist in our most vulnerable, overburdened, and under resourced communities.

#### Understanding and Preventing Climate Change Impacts on Ecosystems, Economy, and Health

Tuesday, January 24, 2017, 5:15 - 6:15 PM



Virginia Burkett, PhD, is Associate Director for the Climate and Land Use Change Mission Area at the U.S. Geological Survey (USGS). She was formerly Chief of the Forest Ecology Branch at the USGS National Wetlands Research Center in Louisiana. Dr. Burkett also served as Secretary/Director of the Louisiana Department of Wildlife and Fisheries, Acting Director of the Louisiana Coastal Zone Management Program, and Assistant Director of the Louisiana Geological Survey. She served as a Lead Author of the United Nation's Intergovernmental Panel on Climate Change (IPCC) Third, Fourth and Fifth Assessment Reports, and was a lead author of the First, Second, and Third National Climate Assessments.



Rita R. Colwell, PhD, is a Distinguished University Professor at both the University of Maryland – College Park and the Johns Hopkins Bloomberg School of Public Health. She also serves as Senior Advisor and Chairman Emeritus at Canon U.S. Life Sciences, Inc. Dr. Colwell served as the 11th Director of the National Science Foundation from 1998 to 2004. She has also held many advisory positions in the U.S. government, non-profit science policy organizations, private foundations, and the international scientific research community, including on the NCSE Board of Directors. Dr. Colwell has authored or co-authored

17 books and more than 800 scientific publications. She produced the award-winning film, "Invisible Seas," and has served on the editorial boards of numerous scientific journals.



**Katharine Jacobs** is a faculty member at the University of Arizona in the Department of Soil, Water, and Environmental Science and serves as the Director of the Center for Climate Adaptation Science and Solutions (CCASS) within the Institute of the Environment. From 2010 – 2013, Ms. Jacobs served as an Assistant Director in the Office of Science and Technology Policy (OSTP) in the Executive Office of the President. She was the Director of the National Climate Assessment (NCA), leading the team who wrote the Third NCA report. From 2006–2009, Ms. Jacobs was the Executive Director of the Arizona Water Institute.



Juli Trtanj is the One Health and Integrated Climate and Weather Extremes Research Lead for the National Oceanic and Atmospheric Administration (NOAA). She also co-chairs the U.S. Global Change Research Program (USGCRP), Climate Change and Human Health Group (CCHHG), and represents NOAA on the White House Pandemic Prediction and Forecasting Science and Technology Working Group. She served on the Steering Committee of the USGCRP Climate and Health Assessment and was a Convening Lead Author for the Water-Related Illness chapter. She represents NOAA on the International Working Group of the U.S. Group on Earth Observations, is the Integrated Information System for Health Lead for

the Group on Earth Observations (GEO), and is directly involved with the World Health Organization (WHO) and other partners in the development of the Integrated Information Systems for heat, cholera, and other water-related illnesses.



Moderator: Richard Harris joined NPR in 1986. He has reported on a wide range of topics in science, medicine, and the environment. Mr. Harris has covered stories such as the nuclear aftermath of the 2011 tsunami in Japan; the Earth Summit in Rio de Janeiro in 1992; and the United Nations climate negotiations in Kyoto (1997) and Copenhagen (2009). He was the first to report that the government vastly underestimated the volume of oil flowing into the Gulf of Mexico from the 2010 BP well blowout. Harris has been the recipient of many prestigious awards, including the 2013 AGU Presidential Citation for Science and Society, the 2009 National Academy of Sciences Communication Award, and the 1995

Peabody Award for investigative reporting. He is co-founder of the Washington, D.C., Area Science Writers Association, and is past president of the National Association of Science Writers. He serves on the board of the Council for the Advancement of Science Writing. Mr. Harris' book on reproducibility issues in biomedical research, *Rigor Mortis*, will be published April 4.

#### Our Synthetic World: Endocrine Disrupting Chemicals and the Greening of Chemistry

Wednesday, January 25, 2017, 9:30 - 10:30 AM



**David Crews, PhD,** is the Ashbel-Smith Professor in Zoology and Psychology, Department of Integrative Biology, University of Texas at Austin. He has received the Howard Bern Award from the Society for Integrative and Comparative Biology, the D.O.

Hebb Distinguished Scientific Contribution Award from the American Psychological Association, the Exemplar Award for the Integrative Study of Animal Behavior, and the

Daniel S. Lehrman Lifetime Achievement Award from the Society for Behavioral Neuroendocrinology. He is a Fellow of the American Academy of Arts and Sciences, the American Psychological Society, and the

American Psychological Association.



Andrea Gore, PhD, Professor of Pharmacology and Toxicology, College of Pharmacy, University of Texas at Austin, specializes in reproductive neuroendocrinology and the mechanisms by which the brain controls reproductive function. Dr. Gore is one of several researchers who are realizing that a deeper understanding of the brain's role in reproductive failure is needed to help in the creation of new therapies. She also is studying how environmental endocrine-disrupting chemicals (EDCs) such as polychlorinated biphenyls (PCBs) alter reproductive neuroendocrine function. This study looks at the effects of fetal PCB exposure on

reproductive development and physiology, mating behavior and transgenerational effects.



Sarah Vogel, MEM, MPH, PhD, is Vice President of Health at the Environmental Defense Fund (EDF). She works with a team of scientists and policy experts to protect health by reducing exposure to toxic chemicals. Most recently, Dr. Vogel and her team worked to reform the Toxic Substances Control Act and to secure a Sustainable Chemicals Policy at Wal-Mart. Prior to joining EDF, Dr. Vogel worked as a Program Officer at the Johnson Family Foundation. She has frequently written and spoken to diverse audiences about the controversy over the chemical bisphenol A, or BPA, and the impact of new emerging science on

regulatory policy. She is the author of the book, "Is It Safe: BPA and the Struggle to Define the Safety of Chemicals."



Moderator: Lynn Goldman, MD, MS, MPH, is the Michael and Lori Milken Dean, Milken Institute School of Public Health, George Washington University (Milken Institute SPH). Before joining Milken Institute SPH in 2010, she was a Professor of Environmental Health Sciences at Johns Hopkins University's Bloomberg School of Public Health. Dr. Goldman also served as Assistant Administrator for the EPA's Office of Chemical Safety and Pollution Prevention and worked at the California Department of Public Health, where she headed the Division of Environmental and Occupational Disease Control. A member of

the National Academy of Medicine, she currently serves on the National Academy of Medicine Governing Council and the Governing Board of the National Academy of Sciences and is a member of the FDA Science Board and the Advisory Committee to the Director of the CDC.

#### **Integrating Environment and Health: Where Do We Go From Here?**

Thursday, January 26, 2017, 11:45 AM - 12:45 PM



**Paul T. Anastas, PhD,** is the Teresa and H. John Heinz III Professor, Practice of Chemistry for the Environment and Director, Center for Green Chemistry and Green Engineering, Yale University. He has appointments in the School of Forestry and Environmental Studies, Department of Chemistry, and Department of Chemical Engineering. Dr. Anastas served as the Assistant Administrator for Research and Development at the U.S. Environmental Protection Agency and the Agency Science Advisor from 2009–2012. From 2004 –2006, he served as founding Director of the ACS Green Chemistry Institute in

Washington, D.C. He was the Assistant Director for the Environment in the White House Office of Science and Technology Policy from 1999-2004. He is credited with establishing the field of green chemistry during his time working for the U.S. Environmental Protection Agency as the Chief of the Industrial Chemistry Branch and as the Director of the U.S. Green Chemistry Program.



Georges C. Benjamin, MD, has served as the Executive Director of the American Public Health Association since December 2002. He is a former Secretary of Health for the State of Maryland. Dr. Benjamin serves on several non-profit boards such as Research!America, the University of Maryland Medical System, and the Reagan-Udall Foundation. He is a member of the National Academy of Medicine. In April 2016, President Obama appointed Dr. Benjamin to the National Infrastructure Advisory Council, a council that advises the President on how best to assure the security of the nation's critical infrastructure.



Jacqueline McGlade, PhD, is Chief Scientist and Interim Director of the United Nations Environment Programme's (UNEP's) Division of Early Warning and Assessment. From 2003–2013, Professor McGlade was Executive Director of the European Environment Agency. She was Professor in Environmental Informatics in the Department of Mathematics at University College London, Director of the Centre for Coastal and Marine Sciences of the UK Natural Environment Research Council, Professor of Biological Sciences at the University of Warwick, Director of Theoretical Ecology at the FZ Jülich and Senior Scientist at the Bedford Institute of Oceanography in the Federal Government of Canada. She has been

elected as a fellow of two learned societies (FLS and FRSA).



**Fuzz Hogan** is the Managing Editor of New America, overseeing the Editorial, Production, Events and Communications units. Before joining New America, Mr. Hogan served as Executive Producer at Planet Forward, which focused on finding and curating innovative ideas in energy and sustainability. He also served as Executive Producer of a PBS one-hour special, "Planet Forward," in April 2012, broadcast in hundreds of stations across the country. Mr. Hogan spent nearly 20 years at CNN, including stints as Midwest Bureau Chief, Director of Coverage for CNN/U.S., Investigative Unit Chief, and Field Producer.

In 2002, he was co-Executive Producer of CNN's "Terror on Tape" series, which won a Peabody Award.

#### **AWARDS**

### NCSE Lifetime Achievement Awards for Science, Service, and Leadership



Dr. Philip Landrigan, Dean for Global Health, Mount Sinai School of Medicine

Philip Landrigan, MD, MSc, FAAP, is Professor, Preventive Medicine and Pediatrics and Dean for Global Health, Arnhold Institute for Global Health, Icahn School of Medicine at Mount Sinai. He is a pediatrician, epidemiologist, and leader in public health and preventive medicine. Dr. Landrigan's pioneering research on the effects of lead poisoning in children contributed to the U.S. government's decision to remove lead from gasoline and paint. His leadership of a National Academy of Sciences Committee on pesticides in children's diets generated widespread understanding that children are

uniquely vulnerable to toxic chemicals in the environment and helped to secure the passage of the Food Quality Protection Act of 1996. It led also to establishment of EPA's Office of Children's Health Protection. Dr. Landrigan was a leader in developing the National Children's Study, the largest epidemiological study of children's health and the environment ever launched in the United States. He has been centrally involved in the medical and epidemiologic studies that followed the destruction of the World Trade Center on September 11, 2001. He has consulted extensively to the World Health Organization. Dr. Landrigan currently chairs *The Lancet*-Mount Sinai Global Commission on Pollution & Health.



#### Dr. Thomas E. Lovejoy, University Professor of Environmental Science and Policy, George Mason University

Thomas E. Lovejoy, PhD, is University Professor of Environmental Science and Policy, George Mason University. He has worked on the interaction between climate change and biodiversity for more than 20 years. Starting in the 1970's, Dr. Lovejoy helped bring attention to the issue of tropical deforestation, and in 1980 published the first estimate of global extinction rates. He conceived the idea for the

Minimum Critical Size of Ecosystems project, a long-term study on forest fragmentation in the Amazon, which was, until recently, the largest experiment in landscape ecology. He originated the concept of debt-for-nature swaps. Dr. Lovejoy chaired the Scientific and Technical Panel for the Global Environment Facility from 2008-2013 and now serves as Senior Adviser to the Chair. He is the founder of the public television series "Nature." In the past, he served as the Senior Advisor to the President of the United Nations Foundation, as the Chief Biodiversity Advisor and Lead Specialist for the Environment for the Latin American region for the World Bank, as the Assistant Secretary for Environmental and External Affairs for the Smithsonian Institution, and as Executive Vice President of World Wildlife Fund-US. In 2009, the National Geographic Society appointed him Conservation Fellow. In 2002, he was awarded the Tyler Prize, and in 2009 he was the winner of BBVA Foundation Frontiers of Knowledge Award in the Ecology and Conservation Biology Category and received the Blue Planet Prize in 2012. He has served on advisory councils in the Reagan, George H.W. Bush, and Clinton administrations.

### John H. Chafee Memorial Lecture



Governor Bill Ritter, Jr.

Director, Center for the New Energy Economy, Colorado State University

Governor Bill Ritter was elected Colorado's 41st governor in 2006. During his four-year term, Ritter established Colorado as a national and international leader in clean energy by building a New Energy Economy. After leaving the Governor's Office, Ritter founded the Center for the New Energy Economy at Colorado State University, which works with state and federal policy makers to create clean energy policy throughout the country. Governor Ritter has authored a book that was recently

 $published\ titled\ \textit{Powering Forward}-\textit{What Everyone Should Know About America's Energy\ Revolution}.$ 

#### Senator John H. Chafee (1922-1999)

Senator John H. Chafee (1922 – 1999) earned degrees from Yale University and Harvard Law School. Upon the United States' entry into World War II, Senator Chafee left Yale to enlist in the Marine Corps, and then served in the original invasion forces at Guadalcanal. In 1951 he was recalled to active duty and commanded a rifle company in Korea.

After six years in the Rhode Island House of Representatives, Senator Chafee was elected Governor in 1962. He was reelected in 1964 and 1966. In January, 1969, he was appointed Secretary of the Navy and served in that post for three and a half years. He was elected to the United States Senate in 1976. As Chairman of the Environment and Public Works Committee, the Senator was a leading voice in crafting the Clean Air Act of 1990. He led successful efforts to enact oil spill prevention and response legislation and a bill to strengthen the Safe Drinking Water Act. Senator Chafee was a longtime advocate for wetlands conservation and open space preservation and was the recipient of every major environmental award.

John Chafee was a Republican, a committed conservationist, and a political leader who worked across party lines to advance environmental protection. NCSE established the John. H. Chafee Memorial Lecture at its first national conference in 2000.

## SYMPOSIA AND WORKSHOP DESCRIPTIONS

## **Sessions Distributed by Track/Topic**

Tracks and Topics	Symposia A	Symposia B	Symposia C	Workshops	Symposia D
Environmental Justice	1, 3, 4, 9, 11, 12, 13, 16	2, 3, 4, 7, 10	3, 9, 11, 13		
Children's Health	3, 4, 8	3, 12	5, 10, 11	5	5, 7, 8
Climate Change/Extreme Weather Events	1, 5, 6, 7, 8, 9, 15	1, 6, 7, 8, 10, 12	2, 3, 4, 8, 9, 10, 12, 14	6, 7, 9	4, 5, 7
Human-Built Environment	2,4, 7, 9, 10, 12, 16	2, 3, 4, 5, 6, 7	3, 4, 6, 7, 14	2, 4, 6, 8	2, 4
Ecosystems	1	3, 11	2, 3, 4, 5, 15	2, 5	
Animal-Human Interactions/One Health	2, 4, 11,14	1, 2, 5	7, 10, 15	2, 4, 8, 11	
Risk Assessment	1, 2, 8, 9	5, 14	4, 5, 6, 10, 14	4, 5, 9	
Endocrine Disruptors/Non- Communicable Diseases	3		1, 5, 7, 11	3, 5, 8	4
Interdisciplinary Research	1, 2, 3, 5, 8, 14	2, 3, 4, 6, 10,	3, 4, 5, 6, 8, 11, 14, 15, 16	2, 4, 5, 6, 10, 11	4
Agriculture/Food Safety	1, 2, 10, 11, 15,	1, 9	5, 16	4, 5, 10	5, 6
Toxic Substances	2, 3, 4, 8	3, 4, 5, 14	1, 3, 4, 5, 6, 7, 11	3, 4, 5, 8	2
Green Chemistry		5	1, 4, 5, 8	3, 5	2
Public Education/Science Literacy	5, 6	7, 8	4, 5, 9, 12, 14	1, 2, 5, 7, 12	3, 7
College Education	6, 10, 12,		4, 12	12, 13	1
Innovative Programs	3, 10	2, 4, 5	5, 6, 10, 16	1, 2, 5, 7, 10	6
Infectious/Communicable Diseases	15	1, 5, 8	2, 7, 9, 14, 16	8, 10, 12	5
Campus Engagement	6, 10, 12		4		
Microbiomes	4, 5	5, 9	2, 3		
Water and Sanitation	4, 5, 10, 11, 15, 16	3, 14	1, 3, 9, 16	3, 9, 10	5, 6
Student-Focused Sessions	5, 6, 10	3, 6, 7, 8	1, 10, 12, 14, 16	1, 7, 12	2, 3, 6, 9

### Symposia A

Tuesday, January 24, 2017 11:00 - 12:30

## SA1. Disasters, Degraded Ecosystem Services, and Human Health: Understanding, Preparing For, and Mitigating Disaster Impacts – Potomac 5

Organizer and Moderator: Dr. Ariana Sutton-Grier, Assistant Research Scientist, University of Maryland and Ecosystem Science Adviser, National Ocean Service, National Oceanic and Atmospheric Administration

Speakers:

- **Dr. Paul Sandifer**, Research Associate Professor and Director, Center for Coastal Environmental and Human Health, College of Charleston
- Liesel Ashley Ritchie, Associate Director, Natural Hazards Center, University of Colorado
- Ann-Hayward Walker, President, SEA Consulting Group

Tracks: Environmental Justice, Climate Change/Extreme Weather, Ecosystems, Risk Assessment, Interdisciplinary Research, Agriculture/Food Safety

## SA2. Healthy by Design: Communities, Food, Ecosystem Services, and Connectivity – Potomac 6 Organizers and Speakers:

- **Dr. Marty Matlock**, Professor of Ecological Engineering, Executive Director, UA Sustainability Programs, University of Arkansas
- Dr. Steve Luoni, Professor, Community Design Center, University of Arkansas
- Dr. Jeffrey Carney, Associate Professor Director, Coastal Sustainability Studio, Louisiana State University
- David Perkes, Director, Community Design Studio, Mississippi State University

Tracks: Interdisciplinary Research, Risk Assessment, Toxic Substances, Agriculture/Food Safety, Human-Built Environment, Animal/Human Interaction

## SA3. Preventing Children's Exposures to Environmental Health Hazards in Early Care: Emerging Initiatives — Potomac 3

*Organizers and Moderator*: Hester Paul, Eco-Healthy Child Care® National Director and Kristie Trousdale, Program Manager, Children's Environmental Health Network

#### Speakers:

- Robin Joseph, Eco-Healthy Child Care® Engagement Manager, Children's Environmental Health Network
- Tarah Somers, Regional Director for ATSDR Region 1, Agency for Toxic Substances and Disease Registry (ATSDR)
- **Tobie Bernstein**, Senior Attorney, Environmental Law Institute (ELI)
- Dr. Susan M. Hedges, Director of Program Quality Research, National Association for the Education of Young Children (NAEYC)

Tracks: Environmental Justice, Children's Health, Interdisciplinary Research, Innovative Programs, Toxic Substances, Endocrine Disruptors/Non-Communicable Diseases

# SA4. Parks and People: Understanding Environmental Justice in Pursuit of Health Equity – Potomac 4 Organizer: Beth Larry, National Lead for Urban Research, USDA Forest Service Speakers:

Dr. Christopher Boone, Dean and Professor of Sustainability, School of Sustainability, Arizona State University

- **Jennifer Henaghan,** Deputy Research Director and Green Communities Center Manager, American Planning Association
- Na"Taki Osbourne Jelks, Chair, West Atlanta Watershed Alliance and 2014 White House Champion of Change
- Dr. Viniece Jennings, Biological Scientist, USDA Forest Service
- Lori Robertson, Director of Conservation, National Recreation and Park Association

Tracks: Environmental Justice, Human-Built Environment, Toxic Substances, Animal-Human Interactions, Microbiomes, Water and Sanitation

#### SA5. How to Build Cooperation Between Scientists and Managers: A Case Study in the Amazon –

Conference Theater

Organizer and Speaker: Louise Cavalcante de Souza Cabral, Masters Candidate, University of Brasilia Additional Speakers:

- Dr. Marie-Paule Bonnet, Researcher, French National Research Institute for Sustainable Development
- Dr. Patrick Monfort, Senior Researcher, French National Center for Scientific Research (CNRS)
- Dr. Larry Nielsen, Professor of Natural Resources, North Carolina State University
- Chantal Pacteau, Senior Researcher, French National Center for Scientific Research (CNRS)

Tracks: Water and Sanitation, Public Education and Science Literacy, Climate Change/Extreme Weather, Interdisciplinary Research, Microbiomes, Students

#### SA6. Educating About Climate Change Impacts on Health – Tidewater 2

*Organizer*: Patricia Harcourt, Project Manager, Maryland and Delaware Climate Change Education Assessment and Research, University of Maryland Center for Environmental Sciences

*Organizer and Speaker:* Dr. Jennifer Merrill, Research Coordinator, Maryland and Delaware Climate Change Education Assessment and Research, University of Delaware

#### Speakers:

- Whitney Gadsby, Commander, Health Services Officer, Commissioned Corps, U.S. Public Health Service
- Mark Shimamoto, Health Program Lead, U.S. Global Change Research Program
- Dr. Robyn Gilden, Ph.D., RN, Director, Environmental Health Certificate
- Martha Shaum, Environmental Education Specialist, Maryland Department of Natural Resources

Tracks: Climate Change/Extreme Weather, Public Education and Science Literacy, College Education, Campus Engagement, Students

## SA7. Energy Interactions Between Urban Built Environments and Micro-Climate: Impacts, Assessment Methods, and Existing Gaps – Jefferson

*Organizer and Moderator*: Dr. Kelly Klima, Research Scientist, Department of Engineering and Public Policy, Carnegie Mellon University

#### Speakers:

- Dr. Juan Declet-Barreto, Kendall Science Fellow, Climate and Energy Program, Center for Science and Democracy, Union of Concerned Scientists
- Victoria Ludwig, National Program Manager, State and Local Climate and Energy Program, U.S. Environmental Protection Agency
- Dr. Natasha Udu-gama, Director of Community Partnerships, Thriving Earth

Tracks: Human-Built Environment, Climate Change/Extreme Weather

#### SA8. U.S. and French Strategies for Translating Environment and Health Sciences into Policy – Potomac 2

*Organizers*: **Dr**. **Rémy Slama**, Senior Investigator, Inserm (French Institute of Health and Medical Research) and **Dr**. **John Balbus**, Senior Advisor for Public Health and Director, NIEHS-WHO Collaborating Centre for Environmental Health Sciences, National Institutes of Health

*Organizers and Speakers:* **Professor Robert Barouki**, Director, Unit on Toxicology, Pharmacology, and Cell Signaling, Inserm Université Paris Descartes and **Dr. Geneviève Chêne**, Director, Inserm

**Moderators:** Anna Lowit, Senior Science Advisor, Office of Pesticide Programs (OPP), U.S. Environmental Protection Agency and **Dr. Daniel Benamouzig**, Researcher, French National Center for Scientific Research (CNRS) and Inserm **Additional Speakers:** 

- Marc Mortureux, Senior Official, French Ministry of Environment, Energy, and Marine Affairs
- Philippe Hubert, Director, Chronic Risks, French National Competence Centre for Industrial Safety and Environmental Protection (INERIS)
- Jeffrey Morris, Director, Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency
- Gérard Lasfargues, Scientific Deputy Director, The National Agency for Food Safety, Environment and Labor (Anses)

Tracks: Interdisciplinary Research, Children's Health, Climate Change/Extreme Weather, Risk Assessment, Toxic Substances

#### SA9. Climate Data and Public Health: Mobilizing Adaptation Action – Potomac 1

*Organizer*: Dr. Yoon Hui Kim, Director of Advisory Services, Four Twenty Seven *Speakers*:

- Cyndy Comerford, Manager of Policy and Planning, San Francisco Department of Public Health
- Michele Shimomura, Public Health Manager, Denver Department of Environmental Health
- James Evans, Sustainability Analyst, Cleveland Clinic
- Jennifer de Mooy\*, Climate Adaptation Project Manager, Delaware Division of Energy and Climate
- Deborah Weinstock, Director, National Clearinghouse for Worker Safety and Health Training, Michael D. Baker, Inc.

Tracks: Environmental Justice, Climate Change/Extreme Weather, Human-Built Environment, Risk Assessment

#### SA10. Water, Health, and Sustainability Education in the Community College – Arlington

*Organizer and Speaker*: Dr. Christopher Dyer, President and CEO, University of New Mexico-Gallup *Speakers*:

- Dr. Maria V. Boccalandro, Director of Sustainability, Cedar Valley College, Dallas County Community College District (DCCCD)
- Dr. Stephen Summers, Associate Vice President, School of Arts and Sciences, Seminole State College of Florida
- **Dr. Robert Franco**, Professor, Pacific Anthropology and Director, Office for Institutional Effectiveness, Kapi'olani Community College, University of Hawai'i
- Robert Rak, Professor and Environmental Science & Technology Coordinator, Bristol Community College

Tracks: Campus Engagement, College Education, Innovative Programs, Human-Built Environment, Agriculture/Food Safety, Water and Sanitation

## SA11. Hogs, Health, and Humanity: Civic Engagement Around Public Health, Environmental Justice, and the Food System -Lincoln

Organizers and Moderator: Dr. Robert K. Musil, President and CEO, and Zoe Ackerman, Associate Program Director, Rachel Carson Council

#### Speakers:

Chandra Taylor, Senior Attorney, Southern Environmental Law Center

- Mae Wu, Senior Attorney, Health Program, National Resources Defense Council
- Amanda Hitt, Director, Food Integrity Campaign, Government Accountability Project
- Dr. Sacoby Wilson, Assistant Professor, Maryland Institute for Applied Environmental Health and Department of Epidemiology and Biostatistics, School of Public Health, University of Maryland - College Park

Tracks: Environmental Justice, Animal-Human Interactions. Agriculture/Food Safety, Water and Sanitation

#### SA12. University Sustainability: Promoting Health and Social Justice – Prince William

Organizers and Speakers:

- Dr. Peter Walker, Dean, Falk School of Sustainability and Environment, Chatham University
- Dr. Mary Beth Mannarino, Associate Professor in Graduate Psychology, Chatham University
- Dr. Sarah Jameson, Assistant Professor, Chatham University

Tracks: Environmental Justice, Human-Built Environment, College Education, Campus Engagement

#### SA13. Family Planning, the Environment, and Development: What are the Linkages? – Tidewater 1

*Organizer*: Kristen P. Patterson, Program Director, Population, Health, and Environment, Population Reference Bureau *Speakers*:

- Jeff Jordan, President and CEO, Population Reference Bureau
- Nancy Pendarvis Harris, Vice President, John Snow, Inc. (JSI)
- Robert Engelman, Senior Fellow, Worldwatch Institute
- **Dr. Vik Mohan.** Medical Director. Blue Ventures
- Dr. Roger-Mark DeSouza, Director of Population, Environmental Security and Resilience, Woodrow Wilson Center

Tracks: Environmental Justice

#### SA14. One Health: A Transdisciplinary Discussion – Fairfax

*Organizer*: Dr. Xenia K. Morin, Senior Associate Dean for Learning and Associate Teaching Professor, Department of Plant Biology and Pathology, Rutgers University

#### Organizers and Speakers:

- Dr. Laura Kahn, Research Scholar, Program on Science and Global Security, Princeton University
- Dr. A. Alonso Aguirre, Chair, Department of Environmental Science and Policy, George Mason University

#### Additional Speakers:

- Dr. Val Beasley, Professor of Veterinary, Wildlife, and Ecological Toxicology, The Pennsylvania State University
- **Dr. Dina Fonseca**, Director, Center for Vector Biology, Rutgers University

Tracks: Animal-Human Interactions, One Health, Interdisciplinary Research

#### SA15. Water and Seafood Safety: Cholera, Toxins, and Climate Change – Roosevelt

*Organizer and Speaker*: Dr. Isabel Walls, National Program Leader, Food Safety, USDA National Institute of Food and Agriculture

#### Additional Speakers:

- Kurt Soderlund, CEO, Safety Water Network
- **Dr. Rita Colwell,** Distinguished University Professor, University of Maryland Institute for Advanced Computer Studies and Johns Hopkins University Bloomberg School of Public Health
- **Juli Trtanj**, NOAA One Health and Integrated Climate Research Lead, NOAA Climate Program Office, National Oceanic and Atmospheric Administration

Tracks: Climate Change, Agriculture/Food Safety, Infectious Diseases, Water and Sanitation

SA16. Building Adaptive Capacity for Resilience in U.S. Community Water Systems – Kennedy Organizer and Moderator: Dr. Jennifer Biddle, Assistant Professor, University of North Carolina Wilmington Organizer and Speaker: Dr. Karen Baehler, Scholar-in-Residence, American University Additional Speakers:

- Maureen M. Holman, Esq., Sustainability Chief, DC Water and Sewer Authority
- Dr. Kevin M. Morley, Manager, Federal Relations, American Water Works Association

Tracks: Environmental Justice, Human-Built Environment, Infectious Diseases, Water and Sanitation

### Symposia B

Tuesday, January 24, 2017 3:30-5:00

#### SB1. One Health Approach to Environmentally Driven Emerging Diseases – Tidewater 2

Organizers: Jonathan Sleeman, Center Director, U.S. Geological Survey (USGS) National Wildlife Health Center and Dr. Natalie Nguyen, Presidential Management Fellow, USGS National Wildlife Health Center Speakers:

- Dr. Jonathan Epstein, Associate Vice-President, EcoHealth Alliance
- Dr. Thomas DeLiberto, Assistant Director, USDA National Wildlife Research Center
- Dr. Tonie Rocke, Research Geochemist, USGS Wisconsin Water Science Center
- Dr. David Krabbenhoft, Senior Research Scientist, U.S. Geological Survey (USGS)

Tracks: One Health, Infectious/Communicable Diseases, Climate Change/ Extreme Heat, Agriculture/Food Safety

## SB2. Nature-Based Health Promotion: Integrating Ecosystem Services, Human Health, and Well-Being Across Diverse Populations —Potomac 5

#### Organizers and Speakers:

- Dr. Lincoln R. Larson, Assistant Professor, Department of Parks, Recreation, and Tourism Management, College of Natural Resources, North Carolina State University
- Dr. Viniece Jennings, Research Scientist, Southern Research Station, USDA Forest Service

#### Additional Speakers:

- Diana Allen, Chief, Healthy Parks Healthy People, Office of Public Health, National Park Service
- Dr. Robert Zarr, Pediatrician, Unity Health Care
- Courtney Schultz, PhD Student, Department of Parks, Recreation, and Tourism Management, North Carolina State University
- **Dr. B. Derrick Taff**, Assistant Professor, Department of Recreation, Park and Tourism Management, Pennsylvania State University

Tracks: Human-Built Environment, Animal-Human Interactions, One Health, Innovative Programs, Environmental Justice, Interdisciplinary Research

#### SB3. Water, Infrastructure, and Health: Flint and Beyond -Potomac 4

*Organizer*: Dr. Douglas Buhler, Director of MSU AgBioResearch and Assistant Vice President of Research and Graduate Studies, Michigan State University

*Organizer and Moderator:* **Dr. Jinhua Zhao**, Director, Environmental Science and Policy Program and Professor in Economics and Agricultural, Food, and Resource Economics, Michigan State University *Speakers*:

- Dr. Jennifer S. Carrera, Assistant Professor, Department of Sociology, Michigan State University
- Dr. Debra Furr-Holden, C.S. Mott Endowed Professor of Public Health, Michigan State University
- Steve Via, Director of Federal Relations, American Water Works Association

Tracks: Environmental Justice, Public Education and Science Literacy, Human-Built Environment, Interdisciplinary Research, Toxic Substances, Innovative Programs, Students

#### SB4. Environmental Justice and Disposal of Toxic Wastes – Potomac 3

*Organizers*: **Dr. Patricia A. Sobecky**, Associate Provost, The University of Alabama and **Dr. Bennett Bearden**, Director, Water Policy and Law Institute, University of Alabama

#### Speakers:

- Dr. Terry Hazen, ORNL Governor's Chair Professor, The University of Tennessee
- Dr. Carl A. Pinkert, Vice President for Research and Economic Development, The University of Alabama
- Dr. Ellen Griffith Spear, Associate Professor, The University of Alabama
- Kaye Kiker, Vice President and Chair of Environmental Justice Committee, Progressive Women of Northeast Alabama (PWNA)
- Omar Muhammad, President, Lowcountry Alliance for Model Communities

Tracks: Environmental Justice, Built Environment, Interdisciplinary Research, Toxic Substances

#### SB5. Microbiology of the Built Environment: Implications for Health and Design -Arlington

*Organizers and Moderators*: Dr. Karen C. Dannemiller, Assistant Professor, and Dr. Mark Weir, Assistant Professor, The Ohio State University

#### Speakers:

- Dr. Michael Morowitz, Pediatric General and Thoracic Surgeon, University of Pittsburgh
- Dr. Jade Mitchell, Assistant Professor, Michigan State University
- **Dr. Amy Pruden**, W. Thomas Rice Professor of Civil & Environmental Engineering, Virginia Polytechnic Institute and State University (Virginia Tech)
- Dr. Jessica Green, Professor of Biology, University of Oregon and Chief Technology Officer, Phylagen, Inc.

Tracks: Innovative Programs, Microbiomes, Human-Built Environment, One Health, Infectious/Communicable Diseases, Risk Assessment, Toxic Substances, Green Chemistry

#### SB6. Megatrends and Human Health: Impacts of Urbanization and Demography - Roosevelt

*Organizer and Moderator*: Dr. Alan Hecht, Senior Advisor on Sustainability, Office of Research and Development (ORD), U.S. Environmental Protection Agency

#### Speakers:

- **Dr. Wayne Cascio**, Director, Environmental Public Health Division in the National Health and Environmental Effects Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency
- Dr. Laura Anderko, Robert and Kathleen Scanlon Endowed Chair in Values Based Health Care, Georgetown University
- **Dr. Sacoby Wilson**, Assistant Professor and Director of Community Engagement, University of Maryland Institute for Applied Environmental Health

Tracks: Interdisciplinary Research, Climate Change/Extreme Heat, Human-Built Environment, Students

## SB7. Integrated Neighborhood Approach: Disaster Management Activities in an Increasingly Urbanized World

-Lincoln

*Organizer:* Charles Setchell, Senior Shelter, Settlements, and Hazard Mitigation Advisor, U.S. Agency for International Development Office of US Foreign Disaster Assistance (USAID/OFDA)

*Organizer and Speaker*: Mohamed Hilmi, Senior Coordinator and Technical Specialist: Shelter & Settlements, and Disaster Risk Reduction, InterAction

#### Additional Speakers:

• Jennifer Poidatz, Vice President, Humanitarian Response, Catholic Relief Services

- Milton Funes, Director, Program Impacts and Learning, Global Communities
- Mario C. Flores, Director, Disaster Response Field Operations, Habitat for Humanity International

Tracks: Climate Change/Extreme Heat, Human-Built Environment, Environmental Justice, Public Education and Science Literacy, Students

#### SB8. Climate Change, Health, and Infectious Diseases: Towards an Ecosystem Approach – Potomac 6

*Organizers*: Dr. Chantal Pacteau, Senior Researcher, and Dr. Patrick Monfort, Senior Researcher, French National Center for Scientific Research (CNRS)

#### Speakers:

- Dr. Rita Colwell, Distinguished University Professor, University of Maryland College Park and Johns Hopkins
  University Bloomberg School of Public Health
- Dr. Minh-Hà Pham, Counselor for Science and Technology, Embassy of France in the United States
- Dr. Jean Paul Moatti, Chairman and CEO, French National Research Institute for Sustainable Development (CNRS)
- Dr. Sylvie Joussaume, Senior Researcher, French National Center for Scientific Research
- Dr. Louise Vandelac, Professor, Institute for Environmental Sciences and Department of Sociology, University of Quebec in Montréal
- Dr. Serge Morand, Senior Researcher, French National Center for Scientific Research (CNRS)

Tracks: Climate Change/Extreme Heat, Public Education/Science Literacy, Infectious/Communicable Diseases, Students

#### SB9. Soil Health, Microbiomes, and Climate-Adaptive Agriculture – Potomac 2

Organizer and Speaker: Dr. Arnab Bhowmik, Postdoctoral Associate, Pennsylvania State University Organizer and Moderator: Dr. Mary Ann Bruns, Associate Professor, Pennsylvania State University Additional Speakers:

- Dr. Bianca Moebius-Clune, Director, Soil Health Division, USDA Natural Resources Conservation Service
- Dr. Terrence Bell, Assistant Professor, Pennsylvania State University

Tracks: Agriculture/Food Safety, Microbiomes, Climate Change

#### SB10. Indigenous Peoples, Environment and Health -Potomac 1

Organizers: Dr. Ameyali Ramos Castillo, Deputy Chair, Commission on Environmental, Economic and Social Policy (CEESP), IUCN; and Dr. David E. Blockstein, Senior Scientist, National Council for Science and the Environment Organizer and Speaker: Dr. Roberto Delgado, Scientific Program Manager, Office for Research on Disparities and Global Mental Health, National Institute of Mental Health, National Institutes of Health (NIH)

Additional Speakers:

- Minnie Degawan, Director, Indigenous and Traditional Peoples Program, Conservation International
- Dr. Daniel Wildcat, Department of Environmental Science, and American Indian Studies, Haskell Indian Nation University
- Dr. Octaviana Trujillo, Founding Chair, Department of Applied Indigenous Studies, Northern Arizona University

Tracks: Environmental Justice, Climate Change, Ecosystems, Interdisciplinary Research

#### SB11. Ocean Science and Technology: Comments Requested on Federal Research Plan – Kennedy

*Organizer*: Dr. Jessica McGrath, Ocean Policy Specialist, National Science Foundation *Speakers*:

- Dr. Margaret (Peg) Brady, NOAA Fisheries Strategic Planner, National Oceanic and Atmospheric Administration
- **Dr. Gene Kim**, National Program Leader for Aquaculture, U.S. Department of Agriculture, National Institute of Food and Agriculture (NIFA)
- Dr. Lisa Clough, Section Head, Division of Ocean Sciences, National Science Foundation
- Dr. Richard W. Murray, Division Director, Ocean Sciences Division, National Science Foundation

Tracks: Ecosystems, Interdisciplinary Research,

## SB12. Family Planning, Resilience, and Climate Change: What are the Linkages, and Where is the Evidence? – Conference Theater

*Organizer*: Kristen P. Patterson, Program Director, Population, Health, and Environment, Population Reference Bureau *Speakers*:

- Dr. Karen Hardee, Senior Associate and Director, Evidence Project, Population Council
- Craig Leisher, Director, Monitoring and Evaluation, Africa Region, The Nature Conservancy
- Dr. Vik Mohan, Medical Director, Blue Ventures

Tracks: Children's Health, Climate Change

#### SB13. Human Health Effects of Methane and Fracking - Fefferson

*Organizer and Moderator*: Dr. Barbara Gottlieb, Director of Environment and Health, Physicians for Social Responsibility *Speakers*:

- Dr. Kathleen Nolan, Research Director, Catskill Mountainkeeper and Concerned Health Professionals of New York, Physicians for Social Responsibility (PSR)\*
- Raina Rippel, Director, Southwest Pennsylvania Environmental Health Project and Environmental Health Policy Institute, PSR
- Dr. Pouné Saberi, Section Chief, Occupational and Environmental Medicine, Philadelphia VA Medical Center;
   Clinical Faculty, Hospital of University of Pennsylvania; Member, PSR National Board and Member, PSR Philadelphia Board, PSR

Tracks: Risk Assessment, Toxic Substances, Water and Sanitation

### Symposia C

Wednesday, January 25, 2017 11:30-1:00

## SC1. An Integrated Solutions-Based Approach Towards Minimizing Impacts from Pharmaceuticals in the Environment – Arlington

*Organizers and Speaker*: **Dr. Rebecca D. Klaper**, Professor, School of Freshwater Sciences and **Dr. Scott Graham**, Associate Professor, University of Wisconsin-Milwaukee

#### Additional Speakers:

- Dr. Bryan Brooks, Professor, Department of Environmental Science and Institute of Biomedical Studies and Director, Environmental Health Science Program, Baylor University
- **James Laurenson**, Environmental Officer, Center for Drug Evaluation and Research (CDER), U.S. Food and Drug Administration (FDA)
- Charlotte A. Smith, Senior Regulatory Advisor, PharmEcology Services

Tracks: Toxic Substances, Green Chemistry, Water and Sanitation, Endocrine Disruptors, Students

#### SC2. Earth Microbiome and Human Health *-Potomac 2*

*Organizer*: Dr. Randy Burd, Associate Vice President for Global Research Alliances, Office of Research-Discovery and Innovation and Professor of Nutritional Sciences, University of Arizona

*Organizer and Moderator*: Dr. Raina M. Maier, Professor of Environmental Microbiology, University of Arizona *Speakers*:

- Martha Carlin, CEO, The BioCollective
- Dr. Fernando D. Martinez, Regent's Professor of Pediatrics, University of Arizona
- Dr. Jack A. Gilbert, Professor, Department of Surgery, University of Chicago
- Dr. Janet Jansson, Division Director of Biological Sciences, Pacific Northwest National Laboratory (PNNL)

Tracks: Microbiomes, Climate Change, Ecosystems, Infectious/Communicable Diseases

## SC3. Eutrophication, Harmful Algal Blooms, and the Protection of Human and Environmental Health through Drinking Water Resources – Washington A

Organizers and Speakers:

- Dr. Richard Friesner, Division Director, Water Quality Programs, New England Interstate Water Pollution Protection Commission
- Dr. James Ammerman, Science Coordinator, Long Island Sound Study, EPA National Estuary Program for Long Island Sound

#### Additional Speakers:

- Hannah Holsinger, MPH, Environmental Scientist, U.S. Environmental Protection Agency
- Dr. Barry Liner, Director, Water Science & Engineering Center, Water Environment Federation
- **Dr. Timothy Davis**, Research Scientist, National Oceanic Atmospheric Administration, Great Lakes Environmental Research Laboratory

Tracks: Human-Built Environment, Ecosystems, Microbiomes, Water and Sanitation, Interdisciplinary Research, Environmental Justice, Climate Change, Toxic Substances

#### SC4. Positive Health Impacts from Green Power -Roosevelt

*Organizers*: **Dr. Greg Monty**, Director, and **Dr. Vicki Foust**, Research Associate, Center for Energy Research and Technology, North Carolina Agricultural and Technical State University

#### Speakers:

- Pari Kasotia, Deputy Director, The Solar Foundation
- Dr. Kyle Siler-Evans, Associate Engineer, RAND Corporation
- Dr. Eladio M. Knipping, Principal Technical Leader, Air Quality, Environmental Sector, Electric Power Research Institute (EPRI)
- Dr. Beth Hawkins, Co-Founder and Vice President of Research Development, Three3
- Dr. Kristina Johnson, Co-Founder and CEO, Cube Hydro
- Denise Mulholland, Senior Analyst, State Climate and Energy Program, U.S. Environmental Protection Agency

Tracks: Human-Built Environment, Risk Assessment, Public Education and Science Literacy, College Education, Campus Engagement, Climate Change/Extreme Heat, Ecosystems, Interdisciplinary Research, Toxic Substances, Green Chemistry

#### SC<sub>5</sub>. Envisioning Health and Sustainability –Potomac 3

#### Organizers and Speakers:

- Dr. Tee L. Guidotti, Editor, Archives of Environmental and Occupational Health
- Dr. Jerry Paulson, Emeritus Professor of Pediatrics, George Washington University
- Dr. Linda Abbott. Office of Risk Assessment, U.S. Department of Agriculture
- Dr. Sally Kane, National Capital Area Chapter of the Society for Risk Analysis

Tracks: Toxic Substances, Green Chemistry, Interdisciplinary Research, Children's Health, Non-Communicable Diseases, Agriculture/Food Safety, Risk Assessment, Public Education and Science Literacy, Innovative Programs, Ecosystems

## SC6. Improving Human Health in Cities: Groundbreaking Science and Applications for Urban Forestry and Stewardship – Jefferson

*Organizer*: Beth Larry, National Lead for Urban Research, USDA Forest Service *Speakers*:

- Dr. Erika S. Svendsen, Research Social Scientist, U.S. Forest Service Northern Research Station
- Jackie Ostfeld, Nearby Nature Director, Our Wild America Campaign, Sierra Club
- Christopher Chandler, Urban Conservation Program Director, The Nature Conservancy
- Dr. Morgan Grove, Social Scientist and Team Leader, USDA Forest Service Baltimore Urban Field Station

Tracks: Human-Built Environment, Risk Assessment, Interdisciplinary Research, Toxic Substances, Innovative Programs

#### SC7. One Health: Science Gaps at the Intersection of Health and Environment –Potomac 4

Organizer: Patricia Bright, Senior Science Advisor, Environmental Health, U.S. Geological Survey
Organizer and Speaker: Dr. Geoffrey Plumlee, Associate Director of Environmental Health, U.S. Geological Survey
Additional Speakers:

- Dr. Aubrey Miller, Senior Medical Advisor, National Institute of Environmental Health Sciences
- Dr. A. Alonso Aguirre, Chair, Department of Environmental Science and Policy, George Mason University

Tracks: One Health, Human-Built Environment, Endocrine Disruptors, Non-Communicable Diseases, Toxic Substances, Infectious/Communicable Diseases, Animal-Human Interactions

#### SC8. The Emerging Bioeconomy: Implications on Health and the Economy - Fairfax

Organizer: Shannon Marshall, Director, Meetings and Conferences, Corn Refiners Association
Organizer and Speaker: Ben Gruitt, Manager, Sustainability and Special Projects, Corn Refiners Association
Additional Speakers:

- Betsy Hickman, Vice President, Field to Market
- Camille Burel, Global Public Affairs Manager, Roquette
- Stephanie Batchelor, Director, State & International Policy, Biotechnology Innovation Organization

Tracks: Green Chemistry, Climate Change, Ecosystems, Interdisciplinary Research

#### SCo. Climate Changes Health: The Public Health Perspective – Washington B

Organizers and Speakers:

- Dr. Natasha DeJarnett, MPH, Policy Analyst, American Public Health Association
- Surili Sutaria Patel, MS, Senior Program Manager, Environmental Health, American Public Health Association *Additional Speakers:* 
  - Lida Alijabar, Program Analyst, Environmental Health, The Trust for Public Land
  - David Fouse, Director of Communications, American Public Health Association
  - Glenn Griffin, Director of Online Marketing, American Public Health Association
  - Don Hoppert, Director of Government Relations, American Public Health Association

Tracks: Climate Change/Extreme Heat, Environmental Justice, Public Education and Science Literacy, Infectious/Communicable Diseases. Water and Sanitation

## SC10. Human and Animal Heat Stress: Integrating New Models, Public Policy Warning Systems, Identifying Policy, and Research Hot Spots —Prince William

*Organizers*: Jonathan R. Buzan, PhD Candidate and Dr. Matthew Huber, Professor, Purdue University *Speakers*:

- Dr. Alan Barreca, Associate Professor, Tulane University
- **Dr. Robert Kopp,** Associate Director, Rutgers Energy Institute and Associate Professor, Department of Earth and Planetary Sciences, Rutgers University
- Dr. W. Larry Kenney, Marie Underhill Noll Chair in Human Performance and Professor of Physiology and Kinesiology, Pennsylvania State University
- Dr. Radley Horton, Research Scientist, Center for Climate Systems Research, Columbia University
- Dr. Andreas Matzarakis, Leader, Research Center Human Biometeorology, German Meteorological Service and Professor, University of Freiburg

Tracks: Climate Change/Extreme Heat, Risk Assessment, Innovative Programs, Children's Health, Animal-Human Interactions, One Health, Students

#### SC11. Long Term Effects of Developmental Exposures: Implications to Policy – Potomac 1

*Organizers and Speakers*: Professor Robert Barouki, Director, Unit on Toxicology, Pharmacology, and Cell Signaling, Inserm Université Paris Descartes and **Dr. Rémy Slama**, Senior Investigator, Inserm

*Moderators*: **Dr. Genèvieve Chêne**, Director, Department of Public Health, Inserm and Professor in Biostatistics and Public Health, Bordeaux University and **Dr. Clark Lantz**, Professor of Cellular and Molecular Medicine and Professor, Division of Community, Environment and Policy, University of Arizona

#### Additional Speakers:

- Dr. Dana Dolinoy, Associate Professor, Environmental Health Sciences, University of Michigan
- **Dr. Germaine M. Buck Louis**, Director and Senior Investigator, Division of Intramural Population Health Research, Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health

Tracks: Interdisciplinary Research, Children's Health, Endocrine Disruptors, Toxic Substances, Environmental Justice

#### SC12. Education of Medical Professionals -Potomac 5

*Organizers and Speakers*: **Dr. Mona Sarfaty**, Director, Program on Climate and Health, George Mason University Center for Climate Change Communication and **Dr. Caroline Wellbery**, Professor of Family Medicine, Georgetown University Medical School

#### **Additional Speakers:**

- Dr. Amy Collins, Emergency Physician, MetroWest Medical Center
- Molly Rauch, Public Health Policy Director, Moms Clean Air Force

Tracks: College Education, Public Education and Science Literacy, Climate Change, Students

# SC13. A Solution-Based Integrated Approach to Community Resilience and Mental Health Care — Tidewater 1 Organizer and Speaker: Dr. Bernard D. Goldstein, Professor Emeritus, School of Public Health, University of Pittsburgh Additional Speakers:

- Dr. Keith Nichols, Senior Associate Director, Coastal Resources and Resiliency Center, University of South Alabama
- Dr. Jeffrey K. Wickliffe, Associate Professor, Tulane University
- Dr. Anthony Speier, Clinical Associate Professor of Psychiatry, Health Sciences Center, Department of Psychology, Louisiana State University

Tracks: Environmental Fustice

#### SC14. Health Applications of NASA Satellite Remote Sensing –Kennedy

Organizer: Dr. Shobhana Gupta, AAAS Science and Technology Policy Fellow, NASA Headquarters
Organizer and Moderator: Barry Lefer, Program Manager, Tropospheric Composition Program, Earth Science Division,
NASA Headquarters

*Organizer and Speaker:* Dr. Ana Prados, Project Manager, NASA Applied Remote Sensing Training (ARSET), University of Maryland, Baltimore County, NASA Goddard Space Flight Center

#### Additional Speakers:

- Dr. Rita Colwell, Distinguished University Professor, University of Maryland College Park and the Johns Hopkins
   University Bloomberg School of Public Health; Founder and Global Science Officer, CosmosID Bioinformatics Inc.
- Dr. Richard Stumpf, Oceanographer, NOAA National Centers for Coastal Ocean Science
- Dr. Urvashi Narain, Senior Economist, The World Bank

Tracks: Interdisciplinary Research, Climate Change/Extreme Weather, Risk Assessment, Communicable Diseases, Human-Built Environment, Public Education and Science Literacy, Students

# <u>SC15. Environmental and Health Consequences of Extinction and Biodiversity Loss</u> – *Conference Theater Organizer and Speaker*: Dr. David Blockstein, Chief Scientist, National Council for Science and the Environment *Additional Speakers*:

- Dr. Thomas Lovejoy, University Professor of Environmental Science and Policy, George Mason University
- Dr. Ariana Sutton-Grier, Assistant Research Scientist and Ecosystem Science Adviser, University of Maryland and National Ocean Service, National Oceanic and Atmospheric Administration

• Dr. Eric Hoberg, Biologist and Biogeographer, U.S. Department of Agriculture, Agricultural Research Service

Tracks: Ecosystems, Animal-Health Interactions, Interdisciplinary Research

#### SC16. Co-Creating Transdisciplinary Research: Designing Integrative Education – *Lincoln*

Organizer and Speaker: Dr. Deana Pennington, Associate Professor of Geological Sciences, University of Texas at El Paso Organizer and Moderator: Dr. Shirley Vincent, Director, Center of Environmental Education Research, National Council for Science and the Environment

#### **Additional Speakers:**

- Dr. Roderic Parnell, Professor of Earth Sciences and Environmental Sustainability, Northern Arizona University
- Christina Brown, Ph.D. Candidate, Florida International University
- Aaron Pina, Ph.D. Candidate, Colorado State University
- Margie Vela, Ph.D. Candidate, New Mexico State University
- Dr. David Gosselin, Professor, Director of Environmental Studies, University of Nebraska at Lincoln

Tracks: Interdisciplinary Research, Innovative Programs, Agriculture/Food Safety, Infectious/Communicable Diseases, Water and Sanitation, Students

### Workshops

Wednesday, January 25, 2017 2:30-5:30

#### W1. How Telling Stories about Our Work Can Help Us Do It Better -Potomac 4

Organizers and Speakers:

- Dr. Beth Karlin, Research Director, Norman Lear Center, University of Southern California
- Lara Fowler, Senior Lecturer, Pennsylvania State Law and Assistant Director for Outreach & Engagement, Institutes of Energy and the Environment, Pennsylvania State University

Tracks: Public Education and Science Literacy, Innovative Programs, Students

### $\underline{\textbf{W2. Uncovering Connections Between Healthy Ecosystems and Healthy Communities}} - \textit{Washington B}$

*Organizers*: Dr. Stephen Posner, Policy Engagement Associate and Dr. Erica Goldman, Director of Policy Engagement, COMPASS

#### Speakers:

- **Dr. Paul Sandifer**, Professor and Director, Center for Coastal Environmental and Human Health, College of Charleston
- Dr. Montira Pongsiri, Science Policy Advisor, Planetary Health Alliance
- Dr. Taylor Ricketts, Director and Professor, Gund Institute for Ecological Economics, University of Vermont
- Dr. Subhrendu Pattanayak, Professor, Duke University
- **Dr. Lydia Olander**, Director, Ecosystem Services Program, Nicholas Institute for Environmental Policy Solutions and Adjunct Associate Professor, Nicholas School of the Environment, Duke University

Tracks: Human-Built Environment, Public Education and Science Literacy, Innovative Programs, Interdisciplinary Research, Animal-Human Interactions, Ecosystems

## W3. An Integrated Solutions-Based Approach Towards Minimizing Impacts from Pharmaceuticals in the Environment – Potomac 2

Organizer: Dr. Rebecca D. Klaper, Professor, School of Freshwater Sciences, University of Wisconsin - Milwaukee Organizer and Speaker: Dr. Scott Graham, Associate Professor, University of Wisconsin-Milwaukee Additional Speakers:

- Dr. Vesela Veleva, Lecturer and Faculty, Center for Sustainable Enterprise and Regional Competitiveness, University
  of Massachusetts Boston
- Dr. Ilene Ruhoy, Owner and Founder, Center for Healing Neurology and Faculty, Seattle Children's Hospital
- Erin Heath, Associate Director of Government Relations, American Association for the Advancement of Science

Tracks: Toxic Substances, Green Chemistry, Water and Sanitation, Endocrine Disruptors

## <u>W4. Healthy by Design: Communities, Food, Ecosystem Services, and Connectivity</u> – *Potomac 6 Organizers and Speakers*:

- Dr. Marty Matlock, Professor of Ecological Engineering, Executive Director, UA Sustainability Programs, University
  of Arkansas
- Stephen Luoni, Professor, Community Design Center, University of Arkansas
- Jeff Carney, Associate Professor Director, Coastal Sustainability Studio, Louisiana State University

David Perkes, Director, Community Design Studio, Mississippi State University

Tracks: Interdisciplinary Research, Risk Assessment, Toxic Substances, Agriculture/Food Safety, Human-Built Environment, Animal/Human Interaction

#### W5. Integrating Health and Sustainability – Tidewater 2

Organizer and Moderator: Dr. Tee L. Guidotti, Editor, Archives of Environmental and Occupational Health

Tracks: Toxic Substances, Green Chemistry, Interdisciplinary Research, Children's Health, Non-Communicable Diseases, Agriculture/Food Safety, Risk Assessment, Public Education and Science Literacy, Innovative Programs, Ecosystems

#### W6. Retooling Regulation: Integrating Energy and Environmental Planning – Potomac 1

*Organizer*: Jake Brown, Communications Associate, Regulatory Assistance Project *Organizer and Moderator*: Ken Colburn, Principal, Regulatory Assistance Project *Speakers*:

- **Dan Greenbaum**, President and CEO, Health Effects Institute (HEI)
- **Bob McConnell**, Environmental Engineer, Region 1 Air Quality Planning Group, U.S. Environmental Protection Agency
- Jack P. Broadbent, Chief Executive Officer and Air Pollution Control Officer, Bay Area Air Quality Management District
- Ron Binz,\* President, Public Policy Consulting

Tracks: Interdisciplinary Research, Climate Change/Extreme Heat, Human-Built Environment

#### W7. Building Local Capacity to Respond to the Impacts from a Changing Climate – Potomac 3

*Organizer and Moderator*: Dr. Michael H Simpson, Co-Director, Center for Climate Preparedness and Community Resilience, Antioch University New England

*Organizer and Speaker*: Dr. Abigail Abrash-Walton, Co-Directors, Center for Climate Preparedness and Community Resilience, Antioch University New England

#### Additional Speakers:

- David Herring, Director of Communication and Education, National Oceanic and Atmospheric Administration Climate Program Office
- Dr. Jason Rhoades, Faculty, Antioch University New England
- Christa Daniels, Doctoral Fellow and Program Manager, Center for Climate Preparedness and Community Resilience

Tracks: Climate Change/Extreme Heat, Public Education and Science Literacy, Innovative Programs, Students

#### W8. One Health: Science Gaps at the Intersection of Health and Environment – Tefferson

*Organizers and Speakers*: Dr. Geoffrey S. Plumlee, Associate Director and Patricia Bright, Senior Science Advisor, Environmental Health, U.S. Geological Survey

#### **Additional Speakers:**

- Dr. Aubrey Miller, Senior Medical Advisor, National Institute of Environmental Health Sciences
- **Dr. Jessica Petrillo**, Senior Health Security Officer, Office of International Health and Biodefense, U.S. Department of State
- Dr. Christopher Weis, Toxicology Liaison and Senior Advisor, National Institute of Environmental Health Science
- Dr. Michael Focazio, Program Coordinator, Toxic Substances Hydrology and Contaminant Biology Programs, U.S. Geological Survey

- **Dr. Tonya Nichols**, Acting Division Director Threat and Consequence Assessment Division, U.S. Environmental Protection Agency National Homeland Security Research Center
- Dr. Dale Griffin, Environmental-Public Health Microbiologist, U.S. Geological Survey

Tracks: One Health/Animal-Human Interactions, Human-Built Environment, Endocrine Disruptors, Non-Communicable Diseases, Toxic Substances, Infectious/Communicable Diseases

# Wo. Water Availability, Quality, and Environmental Change: Implications for Human Health — Washington A Organizers and Speakers: Dr. Nancy Beller-Simms, Program Manager and Director, Sectoral Applications Research Program, Climate Program Office; Adrienne Antoine, Program Manager, Coastal and Ocean Climate Applications Program (COCA); and Dr. Joshua Brown, Chief Focus Area Officer and Research Lead, National Sea Grant College Program, National Oceanic and Atmospheric Administration

*Organizer and Moderator*: Claudia Nierenberg, Climate and Water Lead, National Oceanic and Atmospheric Administration *Additional Speakers*:

- Juli Trtanj, NOAA One Health and Integrated Climate Research Lead, NOAA Climate Program Office, National Oceanic and Atmospheric Administration
- Dr. Sandra McLellan, Professor, School of Freshwater Sciences, University of Wisconsin Milwaukee
- **Jeffrey Seltzer,** Associate Director, Stormwater Management Division, District of Columbia's Department of Energy and Environment (DOEE)
- Dr. Chris Winslow, Interim Director, Ohio Sea Grant College Program and Stone Laboratory, Ohio State University
- Erica Brown, Chief Strategy and Sustainability Officer, Association of Metropolitan Water Agencies
- Katy Lackey, Research Manager, Water Environment and Reuse Foundation (WE&RF)
- Kristina Surfus, Manager of Legislative Affairs, National Association of Clean Water Agencies (NACWA)
- Dr. Mike Frasier, Executive Director, Association of State and Territorial Health Officials

Tracks: Climate Change/Extreme Heat, Risk Assessment, Water and Sanitation

# W10. Co-Creating Transdisciplinary Research: Developing Skills for Crossing Boundaries – Lincoln Organizers and Facilitators:

- Dr. Deana Pennington, Associate Professor of Geological Sciences, University of Texas at El Paso
- Dr. Roderic Parnell, Professor of Earth Sciences and Environmental Sustainability, Northern Arizona University

Tracks: Interdisciplinary Research, Innovative Programs, Agriculture/Food Safety, Infectious/Communicable Diseases, Water and Sanitation

#### W11. One Health: A Transdisciplinary Discussion –Roosevelt

*Organizer and Moderator*; Dr. A. Alonso Aguirre, Chair, Department of Environmental Science and Policy, George Mason University

#### Organizers and Speakers:

- Dr. Xenia K. Morin, Senior Associate Dean for Learning and Associate Teaching Professor, Department of Plant Biology and Pathology, Rutgers University
- **Dr. Laura H. Kahn**, Research Scholar, Program on Science and Global Security, Woodrow Wilson School of Public and International Affairs, Princeton University

#### **Additional Speakers:**

- Dr. William Benson, Acting Director for the National Health and Environmental Effects Research Laboratory (NHEERL), Office of Research and Development, U.S. Environmental Protection Agency
- **Dr. Nil Basu**, Canada Research Chair (CRC) in Environmental Health Sciences and Associate Professor, Agricultural and Environmental Sciences, McGill University

• Janet E. Wiley, DVM, Managing Scientist, Exponent's Ecosciences Practice

Tracks: Animal-Human Interactions, One Health, Interdisciplinary Research

#### W12. Mosquito Mappers: Citizen Scientist Action, Healthy Communities – Kennedy

*Organizers*: **Dr. Russanne Low**, Senior Scientist for Education and Public Outreach, Institute for Global Environmental Strategies (IGES) and **Dr. Rebecca Boger**, Associate Professor, Brooklyn College, The City University of New York (CUNY) and CUNY Graduate Center

#### Speakers:

- Elizabeth Tyson, Program Associate, Science and Technology Innovation Program, Woodrow Wilson International Center for Scholars
- **Dr. Pai-Yei Whung**, Senior Scientist for Climate, Health, Agriculture, Water, and International Office of Research and Development, U.S. Environmental Protection Agency (EPA)
- **Dr. Lee Cohnstaedt**, Research Entomologist, Arthropod-Borne Animal Diseases Research Unit, Center for Grain and Animal Health Research, U.S. Department of Agriculture Agricultural Resource Service
- Pablo Muñoz, Ph.D. Candidate, Department of Computer Science, CUNY Graduate Center

Tracks: Public Education, College Education, Infectious Disease, Students

#### W13. Teaching and Learning about Environment and Health – Potomac 5

*Organizer*: **Dr. David Blockstein**, Chief Scientist, National Council for Science and the Environment *Speakers*:

- Dr. Lynn Goldman, Dean, Milkin Institute School of Public Health, George Washington University
- Leyla McCurdy, Independent Consultant and Adjunct Instructor, Gillings School of Global Public Health, University
  of North Carolina

Tracks: Public Education, College Education

#### W14. Climate Change and Human Health: A Path Forward -Prince William

*Organizer*: Juli Trtanj, NOAA One Health and Integrated Climate Research Lead, NOAA Climate Program Office, National Oceanic and Atmospheric Administration

#### Speakers:

- **Kimberly Thigpen Tart**, Program Analyst, Office of Policy, Planning, and Evaluation, National Institute of Environmental Health Sciences, National Institutes of Health
- Christina Baghdikian, Presidential Management Fellow, U.S. Environmental Protection Agency and U.S. Global Change Research Program
- Mark M. Shimamoto, Health Program Lead, National Coordination Office, U.S. Global Change Research Program
- Tess Carter, National Climate Assessment Program Coordinator, U.S. Global Change Research Program

## Symposia D

Thursday, January 26, 2017 10:00-11:30

#### SD1. The Role of Academia in the Environmental and Health Nexus -Potomac 3&4

Organizer: Dr. Nathan Phillips, Professor, Department of Earth and Environment, Boston University

*Organizer and Moderator*: **Dr. Roderic Parnell,** President, Council of Environmental Deans and Directors, National Council for Science and the Environment and Professor, School of Earth Sciences and Environmental Sustainability, Northern Arizona University

#### Organizer and Speakers:

- Dr. Richard Moore, Emeritus Professor, School of Environment and Natural Resources, The Ohio State University and Senior Fellow, National Council for Science and the Environment
- **Dr. Gwen Geidel,** Undergraduate Director and Research Professor, School of the Earth, Ocean, and Environment, University of South Carolina

#### Additional Speakers:

- Dr. Jiyoung Lee, Associate Professor, Environmental Health Sciences, College of Public Health, The Ohio State University
- Dr. Susan D. Richardson, Arthur Sease Williams Professor, Department of Chemistry and Biochemistry, University
  of South Carolina
- **Dr. Jinhua Zhao**, Director, Environmental Science and Policy Program and Professor in Economics and Agricultural, Food, and Resource Economics, Michigan State University

Tracks: College Education

#### SD2. Is Solar Energy Truly "Clean"? Addressing Environmental, Health, and Safety Impacts of Solar Panels -

Tidewater

*Organizer and Speaker*: Dr. Vesela Veleva, Lecturer and Core Faculty, Center for Sustainable Enterprise and Regional Competitiveness, University of Massachusetts Boston

#### Additional Speakers:

- William Henderson, MBA Candidate, University of Massachusetts Boston and Health and Safety Consultant
- Steven Heim, Director, ESG Research and Shareholder Engagement, Boston Common Assets Management
- Karen Drozdiak, Communications, FirstSolar

Tracks: Human-Built Environment, Toxic Substances, Green Chemistry, Students

#### SD3. Epidemic of Panic: Communicating Environmental Health Threats in a Social Media Age –

Kennedy&Jefferson

Organizer and Moderator: Meaghan Parker, Senior Writer and Editor, Woodrow Wilson Center Speakers:

- Janet Tobias, Director, Writer, and Producer, "Unseen Enemy"
- Marla Cone, Senior Editor, Environment, National Geographic
- Alaka Basu,\* Senior Fellow, United Nations Foundation

Tracks: Public Education and Science Literacy, Students

# <u>SD4. Using Biophilia in the Built Environment to Address Human and Environmental Health</u> – *Washington Organizers and Speakers*:

- Richard V. Piacentini, Executive Director, Phipps Conservatory and Botanical Gardens, Pittsburgh, PA
- Dr. Emily Kalnicky, Director of Science Education and Research, Phipps Conservatory and Botanical Gardens
- Sonja Bochart, Principal, Sonja Bochart Wellness+Design

Tracks: Human-Built Environment, Endocrine Disruptors/Non-Communicable Diseases, Climate Change/Extreme Weather, Interdisciplinary Research

#### SD5. Climate Change and Child Health in the U.S. –Potomac 1&2

*Organizer and Moderator*: Dr. Jerome Paulson, Professor Emeritus of Pediatrics, George Washington University School of Medicine and Health Sciences

*Organizer and Speaker*: Dr. Samantha Ahdoot, Assistant Professor of Pediatrics, Virginia Commonwealth School of Medicine *Additional Speakers*:

- Dr. Lewis Ziska, Plant Physiologist, U.S. Department of Agriculture
- **Kimberly Thigpen Tart**, Program Analyst, Office of Policy, Planning, and Evaluation, National Institute of Environmental Health Sciences, National Institutes of Health (NIH)
- Dr. Aparna Bole, Pediatrician and Medical Director of Community Integration, University Hospitals Rainbow Babies
   Children's Hospital, Cleveland, Ohio

Tracks: Children's Health, Climate Change/Extreme Weather, Communicable Diseases, Agriculture/Food Safety, Water and Sanitation

#### SD6. Growing Healthy, Sustainable Food Through Aquaculture -Roosevelt&Lincoln

*Organizer*: David O'Brien, Deputy Director, Fisheries Office of Aquaculture, National Oceanic and Atmospheric Administration

*Organizer and Speaker:* Dr. James A. Morris, Jr., Marine Ecologist, National Centers for Coastal Ocean Science, National Ocean Service, National Oceanic and Atmospheric Administration

#### Additional Speakers:

- Capt. Joseph R. Hibbeln, M.D, Acting Chief, Section of Nutritional Neurosciences, National Institute on Alcohol
  Abuse and Alcoholism, National Institutes of Health (NIH)
- Carmen Revenga, Global Fisheries and Aquaculture Program Lead, The Nature Conservancy
- Sebastian Belle, Executive Director, Maine Aquaculture Association (MAA)

Tracks: Agriculture/Food Safety, Innovative Programs, Water and Sanitation, Students

#### SD7. Building Healthy Communities Through Prescribing a Little Nature – Potomac 586

*Organizer and Speaker*: Chelsea McKinney, Fish and Wildlife Biologist, U.S. Fish and Wildlife Service *Additional Speakers*:

- Mandy LeBlanc, Health Educator-Leadership Fellow, National School-Based Health Alliance, Kaiser Permanente WA
- Drew Burnett, Branch Chief for Interagency Coordination, National Conservation Training Center's Division of Education Outreach, U.S. Fish and Wildlife Service
- Dr. Sara B. Newman, Captain, United States Public Health Service and Director, Office of Public Health, National Park Service
- Robin Will, Supervisory Refuge Ranger, St. Marks National Wildlife Refuge, U.S. Fish and Wildlife Service
- Dr. Robert Zarr, Pediatrician, Unity Health Care, and Founder and Director, DC Park Rx

Tracks: Children's Health, Human-Built Environment, Public Education and Science Literacy

# SD8. Understanding the Intersection of Climate and Environmental Change, Food, and Health: Implications for the First 1,000 Days of Life —Regency Ballroom

*Organizer and Moderator*: Dr. Naomi K. Fukagawa, Director, Beltsville Human Nutrition Research Center, U.S. Department of Agriculture

*Organizer and Speaker*: **Dr. Daniel J. Raiten**, Program Director-Nutrition, Pediatric Growth and Nutrition Branch, Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), National Institutes of Health (NIH) *Additional Speakers*:

- **Dr. Laura Anderko,** Professor and Robert and Kathleen Scanlon Endowed Chair in Values Based Health Care, Georgetown University School of Nursing and Heath Studies
- **Dr. Obar Dary,** Health Science Specialist, Bureau for Global Health, U.S. Agency for International Development (USAID)
- **Dr. Lewis Ziska** Plant Psychologist, USDA ARS Beltsville Agricultural Research Center (BARC), U.S. Department of Agriculture

Tracks: Children's Health

### **EXHIBITIONS AND POSTERS**

## **Exhibitors**

Tuesday Hours - 10:45 am - 5:00 pm Wednesday Hours: 8:00 am - 8:30 pm Thursday Hours: 8:00 am - 2:00 pm

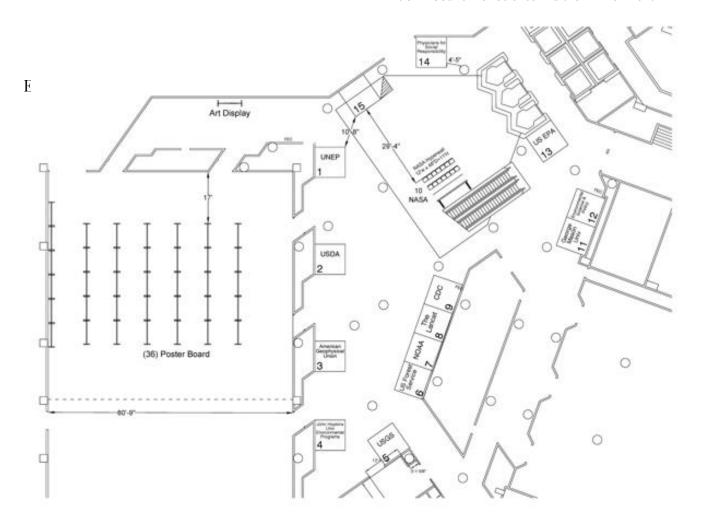
#### Ballroom Level

- 1. United Nations Environment Programme
- 2. U.S. Department of Agriculture
- 3. American Geophysical Union
- 4. Johns Hopkins University Environmental Program
- 5. U.S. Geological Survey
- 6. U.S. Forest Service
- 7. National Oceanic and Atmospheric Administration
- 8. The Lancet

- 9. Centers for Disease Control and Prevention
- 10. National Aeronautics and Space Administration
- 11. George Mason University
- 12. Environmental Science and Policy
- 13. U.S. Environmental Protection Agency
- 14. Physicians for Social Responsibility
- 15. E&E News

#### Independence Level

National Council for Science and the Environment



#### **Posters**

Note: Posters will be up for the duration of the conference, from Tuesday through Thursday, in the Regency Ballroom

Foyer and in the Regency Ballroom. Please see map on previous page.

Student posters are marked with a graduation cap (



1. The Debris Project and Cartage

Lee Lee, The Debris Project

2. An Evaluation of the UK's Regulatory Framework to Mitigate Environmental and Public Health Risk Associated with 'Fracking'

Miriam Aczel, Imperial College London

Conserving Habitat of Endangered Floodplain Species by Modeling Sandbars and Islands in Connecticut River Watershed

Backiel Bogumila, University of Massachusetts, Amherst

4. "Clean dirt": Remedial Efficacy and Project Sustainability in Nigerian Villages Affected by Severe Lead Poisoning Outbreak

Casey Bartrem, University of Idaho and Simba Trima, Ian von Lindern and Margrit von Braun, TerraGraphics International Foundation

5. Comparative Life-Cycle Assessment of Urban Road Transport in Lisbon, Portugal

Joana Bastos and Stuart Batterman University of Michigan; Pedro Marques and Fausto Freire, University of Coimbra

 $6. \quad \textbf{Exposure to Neighborhood Crime is Associated with Weight Status in Elementary School Children} \\$ 

Rachel Blair, Nicole Slesinger, Richard Suminski, and Freda Patterson, University of Delaware

7. Improving Quantitative Measurement of Microbial DNA in Homes with Digital PCR

Ashleigh Bope, Samuel Cochran, Karen C. Dannemiller, The Ohio State University

8. Integrating Economic and Biophysical Models for Ecosystem Services Valuation in the Florida Everglades

Christina Brown, Mahadev Bhat, Jennifer Rehage, Ross Boucek, and Michael Sukop, Florida International University; Victor Engel, U.S. Geological Survey

9. Pet Ownership, Indoor Air Quality. and the Prevalence of Respiratory Conditions: A Cross-Sectional Study in Rural Georgia

Amanda Brown, Errol Spence, and Jiann-Ping Hsu, Georgia Southern University; Javanta Gupta, Florida Coast University; Atin Adhikari, Department of Health Policy and Management

10. EnviroAtlas Connects Urban Ecosystem Services and Human Well-Being

Ferdouz Cochran, Oak Ridge Institute for Science and Education

- 11. Marketing Conservation with Private Woodland Owners to Build a Wildlife Corridor in New England Kelly Dennings, University of South Florida
- 12. Exploring the Food-Health-Environment Nexus: Linking Nutrition Adequacy to Environmental Impacts of China's Diet

Pan He, University of Maryland

- 13. Impact of Antibiotics and Manure on Uptake and Fate in Greenhouse Grown Bermuda Grass (Tifton 85)
  Sheldon Hilaire, Barbara Bellows, Jeff Brady, Jim Muir, and Janice Speshock, Tarleton State University
- 14. **Evaluation of Health Effects of Air Pollution On the Elderly in China** Boya Liu, University of Maryland
- 15. **Indonesian Palm Oil Moratorium: A Conceptual Framework of its Science-Policy Interface**Caryn Massey, Andika Putraditama, Amelie Simons, Wesley McDaniel, and Jackson Massey
- 16. **Visual Recognition of Disease-Carrying Insects**Juan Pablo Muñoz, City University of New York; Rebecca Boger and Justin Li, Brooklyn College; Russanne Low, Globe Observer
  - 17. A Viral Invader of the Laurentian Great Lakes: Genetic and Geographic Trends of VHSV-IVb Megan Niner, University of Toledo
- 18. Instream Health of Limestone Bay Watershed, AL: A Study of Heavy Metal and Bacterial Contamination
  Chloe Phillips and D. Lemke, Alabama Agricultural and Mechanical (A&M) University; F. Okafor, Agricultural and Mechanical University
  - 19. Case Study: Feasibility of a Per-Passenger Environmental Cruise Tax in Ísafjarður, Iceland Michaela Stith, Duke University
  - 20. An Integrative, Non-Invasive, and Cost-Effective Study Relating Resident's Health, Indoor Air Quality, and Infrastructure Defects in the Northeastern U.S.

Nirmala Thomas and Leonardo Calderon, Rutgers University

- 21. Water Infrastructure and Education: An Analysis of Developing Rural Communities on the U.S.-Mexico Border Margie Vela, New Mexico State University
- 22. Community-Level Metrics for Linking Ecosystem Services and Human Health
  Laura Wood and Lydia Olander, Duke University; Bobby Cochran, Wiliamette Partnership; Kathy Wolf, University of
  Washington
- 23. Carbon Lock-In: An Obstacle to Campus Decarbonization
  Matthew Worsham and Robert J. Brecha, University of Dayton Hanley Sustainability Institute
- 24. The Occurrence of Pharmaceuticals in Surface Water of the Huntsville Spring Branch Watershed Shynna Dale, Alabama Agricultural and Mechanical (A&M) University

25. A Breath of Fresh Air – Life Without Coal

Barbara Elliot, Nadine Elmehriki, Emma Griff, Colin Johnson, and Alexandre Walsh, Sir Stanford Fleming College

26. Plan for Plants: Controlling Allergens in the Urban Environment

Barbara Elliot, Stacey Andrews, Jaclyn Craig, Meidan Leiderman, Jennifer Nieuwland, Sir Stanford Fleming College

27. Management Versus Eradication: Applying Ecological Principles to Mitigate Risk

Barbara Elliot, Dan Featherstone, Nicole Lindman, Jean Paul Morris, and Kim Stephens, Sir Stanford Fleming College

28. A Comparative Study of Arsenic Distributions in Fractured Bedrock Wells of Connecticut

Madeleine Haynes, Connecticut State University

29. Impacts of Beach Renourishment on the Distribution and Abundance of Escherichia Coli

Jordan Lewis, Matthew Heard, Victoria Frost, Winthrop University

30. Examining the Relationship Between Household Health and Environmental Conditions in Haiti's Central Plateau

Duncan Pearce and Deborah McGrath, Sewanee: The University of the South

31. Integrating Undergraduates in Research: Evaluating Land Use Influence on Water Quality in North Alabama Streams

Jordan Rhodes, Alabama A&M University

32. Identification and Enumeration of E. coli and the Impact of Climate Change and Variability to Determine the Water Quality in the Flint Creek Watershed (FCW)

Gabrielle Russaw-Scissum, Alabama A&M University

33. Project Embrace: A Non-Profit Dedicated to Address Global Health Disparities Through Medical Waste Reduction

Mohan Sudabattula, University of Utah and Project Embrace

34. Water Sanitation and Waste Management in Latin America, Colombia, and Cartagena

Andrea Sullivan, University of Central Florida

35. "Changing Times:" An Educational Intervention for Senior Citizens to Prepare For Climate Change

Julie Becker, University of the Sciences and Teresa Méndez-Quigley, NOAA Climate Stewards Education Project

36. The Environmental Grand Challenge: How Interdisciplinary Research and Community Engagement Work to

**Build Resilience** 

Phil Berke, John Cooper, Nasir Gharaibeh, Jennifer Horney, and Galen Newman, Texas A&M University

37. Attitudes and Behaviors Concerning Exposures to Toxic Chemicals Towards a Vulnerable Population: An

Environment Health and Risk-Perception Survey of Massachusetts Childcare Providers

Ryan Bouldin, Bentley University and Danielle Bianch-Hartigan, Vanessa Coloma Gonzalez

#### 38. Possible Linkages Between Aerosols and Respiratory Health in West Africa

Avery Bowers, Pennsylvania State University

#### 39. Environmental Biotechnology: Improved Data Quality for Citizen Science

Ellen R. Campbell and WH Campbell, NECi Superior Enzymes

# 40. Regulations.gov as Hybrid Forum: A Semi-Automated Qualitative Analysis of 70,000 Public Comments on GM Seed Regulation

Daniel Card, University of Wisconsin-Milwaukee

#### 41. Integrating Climate Change and Health: Building Expertise and Leadership

Jane Chang, Bob Perkowitz, and Jennifer Tabola, ecoAmerica

## 42. The Beloit College Pathways to Sustainability Leadership Program, Integrating Sustainability into Curriculum and Student Life

Lindsay Chapman, Beloit College

#### 43. Wearable Tattoo Electronics Capable of Dissolving in the Human Body

Huanyu Cheng, Pennsylvania State University

# 44. The Impact of China's Increase in Meat Consumption on Global Climate Change: Questions of Sustainability, Economic Growth, and International Trade

Jennifer Cole, Massachusetts College of Art and Design and Suzanne McCoskey, University of Maryland

## 45. CRESSIDA: Cross-Boundary Approaches for Improving Watershed Resilience and Promoting Public Health in the Western Balkans

Clayton Cox, Maryann Cairns, Alex Lan, Joseph Flotemersch, Gordana Kozhuharova, Mihallaq Qirjo, and Jose Zambrana, U.S. Environmental Protection Agency

#### 46. Wind Turbine Noise and Health: Findings of an Expert Panel

Tee L. Guidotti, Archives of Environmental and Occupational Health

#### 47. Modeling Microbial Growth in Carpet Dust Under Diurnal Variations in Relative Humidity

Sarah Haines and Karen C. Dannemiller, The Ohio State University

#### 48. Ecofriendly Antibacterial Finishing of Wool Fabrics Using Zataria Multiflora Boiss. Extracts

Soudabeh Hajaahmadi, Islamic Azad University

#### 49. Assessing Climate Adaptation Financing Structures

Beverly Harp and Younsung Kim, George Mason University

#### 50. Environmental Policies and Management through Education at Florida International University

Krish Jayachandran, Florida International University

#### 51. Evaluating the U.S. Environmental Protection Agency's Green Chemistry Program

Lauretta Joseph, Natasha Henry and Gabrielle Fekete, U.S. Environmental Protection Agency

52. Improving Human and Environmental Health: How Provision of Health Care Service's and Training in Alternative Livelihoods Positively Influences Conservation Behavior of Citizens Living in Villages that Surround Gunung Palung National Park in West Kalimantan, Indonesia

Bethany Kois, Health in Harmony

53. Do Air Pollutants Associated with Unconventional Oil and Gas Extraction Have Endocrine Activity? Carol Kwiatkowski, University of Colorado, Boulder

#### 54. Activities of the Federal Interagency Work Group on Pharmaceuticals in Water

James Laurenson, U.S. Food and Drug Administration; O. Conerly, B. Behl, D.M. Eignor, J.M. Lazorchak, J. Rogers, J. Strong, USEPA; R.A. Bloom, H. Zahner, USFDA; C.F. Williams, USDA; K.E. Lee, USGS; L. Backer, H. Vesper, CDC; B. McIntyre, NIEHS/NTP; M.H. Fulton, NOAA; L. Baetz, L. Strutz, APHC

55. Willingness to Pay for Biodiversity Conservation and Water Supply of the Tourist Sector in Andes Mountains of the Maipo River Basin, Chile

Alejandro León, and Jorge Soto, Universidad de Chile

56. Understanding and Evaluating Ecosystem Services at Superfund Cleanups

Jewel Lipps, U.S. Environmental Protection Agency

57. Air Pollution, Inflammation, and Risk of Diabetes Mellitus: Turing Population Data into Action on Health Promotion

Longjian Liu, Hui Liu, Ruby Sung, Jessica E. Dow, Feng Jia, Hugh P. Johnson and Charles N. Haas, Drexel University

58. Using Probabilistic Topic Modeling to Analyze Oil Spillages in the Niger Delta Area of Nigeria

Christian Madu, Chu-hua Kuei and Ifeanyi E. Madu, Pace University; Benjamin C. Ozumba, Valentine E. Nnadi, University of Nigeria

59. Climate Change and Human Health: An Exploration of the Impacts of Climate Change on Human Health in the United States for K-12 Students

Leyla Erik McCurdy, Environmental Health Consultant; John Balbus, National Institute of Environmental Health Sciences; Dana Brown Haine, University of North Carolina, Chapel Hill; Betsy Galluzzo, Public Health Specialist

- 60. An Assessment of the Knowledge, Attitudes, and Behaviors of College Students Regarding Tick-Borne Diseases Wendi Middleton, Southern Illinois University of Carbondale
- 61. Use of Water Quality Indices for Comprehensive Assessment of Water Quality

Valeria Mijares, Margaret Gitau, and David Johnson, Purdue University

62. BBFuels of Puerto Rico, LLC: A Sustainable Industrial Model for Bioethanol Production in Puerto Rico Jorge L. Nina Espinosa and Johnny Lugo Vega, University of Puerto Rico

63. An Ecosystemic Approach to Deal with Quality of Life: Consequences for Public Policies, Research and Teaching Programmes

André Francisco Pilon, University of São Paulo

## 64. Building Capacity to Use Remote Sensing for Health and Air Quality Applications Through NASA's ARSET Program

Ana Prados, University of Maryland, Baltimore Country and NASA Goddard Space Flight Center; Pawna Gupta, USRA; Sue Estes, University of Alabama – Huuntsville; Brock Blevins, University of Maryland – Baltimore County; Elizabeth Hook, SSAI

# 65. A Phenomenological Understanding of Residents' Emotional Distress of Living in an Environmental Justice Community

Zeyuan Qiu, New Jersey Institute of Technology; Gabriela Dory, U.S. Army Armament Research; Christina Qiu, Harvard University; Mei Fu, New York University; Caitlin Ryan, North Shore University Hospital Manhasset

# 66. Evaluating Risk of Adverse Health Outcomes Associated with Drinking Water Contaminant Mixtures: Two Case Studies and the Limitations of Exposure Data

Martha G. Rhoades, L.M. Howard, C.E. Steele, P.J. Shea, H.H. Raikes, K.M. Eskridge, E. VanWormer, T.E. Gilmore, J.J. Wallman, R.F. Spalding, M.O. New-Aaron, J.L. Meza, D. Barnes-Josiah, T.H. Rosenquist, University of Nebraska-Lincoln; C.L. Beseler, Colorado State University; A.S. Flynn, U.S. Geological Survey

#### 67. Displacement, Environmental Health, and Urban Adaptation

Martha E. Richmond and John C. Berg, Suffolk University; Sarah Howard, Philip Loheed, and Ninian Stein, Earthos Institute

#### 68. Warming Up Medical Lectures

Holly A. Rosencranz, Warren G. Lavey, and Alex T. Matelski, University of Illinois

#### 69. Diagnostics and Monitoring of Disease Biomarkers in Exhaled Breath

Hans A. Schuessler, Feng Zhu, and Alexandre A. Kolomenskii, Texas AℰM University

#### 70. High Resolution Urban Heat Assessments: A Public Health Imperative

Vivek Shandas, Jackson Voelkel, Yasuyo Makido, Portland State University

#### 71. Water Quality, Sanitation and Hygiene Post-Earthquake in Nepal

Samendra Sherchan, Tulane University

#### 72. Projection of Future Hot Weather Events and the Potential Population Exposure in South Korea

Changsub Shim, J. Seo, and J. Han, University of Colorado - Boulder

#### 73. Relationship Between Mysid Abundance and Fish Predators in Maryland Coastal Bays

Alexis Smith, The University of Maryland - Eastern Shore

#### 74. The Living Building Challenge: A Pathway to Human, Community, and Ecosystem Health

Kathleen Smith and Richard Piancentini, International Living Future Institute

#### 75. Breaking Down the Practice of Composting

Debra Socci and Caitlin McCormick, Seminole State College of Florida



#### 76. Help for the Health of the Hands that Feed US

Laura Mendez Castro, Rodrigo Alcala and Debra Socci, Seminole State College of Florida



#### 77. Plant Growth and Responsiveness as a Tool in Sustainability Education

Michael Barton and Debra Socci, Seminole State College of Florida

# 78. Water Quality, Vegetation Cover, and Avoided Erosion in Wetlands of the Yeso River Basin in the High Andes Mountains

Jorge Soto and Alejandro León, Universidad de Chile

# 79. NIEHS/EPA Children's Environmental Health and Disease Prevention Research Centers (Children's Centers/CEHCs): Translation Research in Children's Environmental Health and Neurodevelopmental Effects Emily Szwiec, Haleya Aja and Nica Louie U.S. Environmental Protection Agency

#### 80. Marine Aquaculture Provides Opportunities to Meet the Protein Needs of a Growing Population While Reducing Our Ecological Footprint

Kim Thompson, and Jerry R. Schubel, Aquarium of the Pacific; Michael B. Rust, National Oceanic and Atmospheric Administration

# 81. A Study of Private Well Owner Outreach Programs: Discovering Factors Critical to Effectively Motivating Well Owners to Act to Protect Drinking Water Quality

Cliff Treyens, National Ground Water Association

#### 82. Pharmaceuticals in the Environment: A Multi-Disciplinary Systems Approach to a Complex Socio-Ecological Challenge

Christine Vatovec, University of Vermont and Patrick Phillips, U.S. Geological Survey

# 83. Evolution of the IEUBK Model for Lead: the Bunker Hill Superfund Site (BHSS) and Beyond Ian von Lindern and Susan Spalinger, TerraGraphics

# 84. A Framework for Values-Focused and Data-Driven Decision Management for Climate Resilience Brian Wee, Neptune and Company, Inc.

#### 85. Probing Methane in Air With Infrared Frequency Combs

Feng Zhu and Hans Schuessler, Texas A&M University

## **COLLABORATORS**

We would like to recognize and thank our long-term and new partners and allies.

- Association for the Advancement of Sustainability in Higher Education (AASHE)
- Association for Environmental Studies and Sciences (AESS)
- Center for Energy and Environment (C2ES)
- Center for a New Energy Economy (CNEE)
- The Embassy of France

- National Academies of Sciences, Engineering, and Medicine
- National Governors Association (NGA)
- · Security and Sustainability Forum (SSF)
- Second Nature
- Sustainability Curriculum Consortium™
- World Resources Institute (WRI)

### STAFF AND VOLUNTEERS

NCSE thanks our volunteers, session organizers and chairs, note-takers, reporters, assistants, and discussants for their generous support.

#### **NCSE Staff**

Michelle Wyman, Executive Director

David Blockstein, Chief Scientist

Andrea Glashow, Director of Finance

Peter Illig, Senior Fellow, Global Affairs

Shelley Kossak, Senior Director, University Relations

Ellen Levine, Program Coordinator, University

Membership and Development

Christopher Prince, Meetings and Office Manager

Sumedha Rao, Program Coordinator, Center for Environmental Education Research (CEER)

Lilah Sloane, Conference Manager

Jessica Soule, Director of Strategic Initiatives and

Program Development

Shirley Vincent, Director, Center for Environmental

Education Research (CEER)

Flannery Wickham, Conference Intern

#### **Conference Volunteers**

Stacey Andrews Rhonda Kranz Rick Stepp Louise Cabral Gabriel Levin Kailash Tilhoo Oswaldo Cuevas Meidan Leiderman Haley Trapp Nadine Ehlmericki Daphne Paszterko Elizabeth Wanko Sarah Goss Sania Rose Kerri Yandrich Emma Griff **Brittany Smith** Mani Shehni Karam Zadeh

## **Special Events for Students**

## Attending the Integrating Environment & Health Conference

## Tuesday, January 24, 2017

12:30-1:45pm Luncheon: Meet a Mentor and Launch of NCSE Student Network

Potomac 586 Understanding the New Climate of Disruption

Dan Carol, Senior Advisor, Beeck Center for Social Impact and Innovation,

Georgetown University

(Lunch is provided for students and mentors.)

6:15-8:00pm Reception & Poster Presentations

## Wednesday, January 25, 2017

11:30am - 1pm Student Network Leadership Meeting

Potomac 5&6

5:30-6pm Poster Presentations

7:00pm Film Screening: *Demain (Tomorrow)* 

## Thursday, January 26, 2017

10:15-11:45am Student Career Panel

Conference Theater

## **Stay Connected Online:**

Join the Facebook group

NCSE 2017 Conference: Students Networking Group

Follow up on Twitter

@NCSEconf

**#NCSEStudent** 

#NCSE2017



#### **Council of Environmental Deans and Directors (CEDD)**

NCSE's Council of Environmental Deans and Directors (CEDD) is a community of program leaders in environmental higher education and research. Together with NCSE, CEDD works collectively to advance the quality, effectiveness, and stature of environmental and sustainability education and acts as a unified voice of the scientific research community that is well regarded by the government, business, and industry sectors. CEDD representatives meet regularly to develop shared priorities, set goals, collaborate on projects and funding opportunities, and build partnerships with other institutions.



Each NCSE University Affiliate member selects up to two faculty administrative leaders as CEDD representatives from their university or college. CEDD works across NCSE with each of its programs, including the Community College Alliance for Sustainability Education (CCASE), the Council of Energy Research and Education Leaders (CEREL), the Student Network, the EnvironMentors program, and the NCSE Board of Directors to advance our common mission of strengthening the role and use of science.

To learn more about CEDD, please contact CEDD Executive Committee President Roderic Parnell at <u>roderic.parnell@nau.edu</u>

or Michelle Wyman at <u>mwyman@ncseglobal.org</u>.

#### Community College Alliance for Sustainability Education (CCASE)

NCSE's Community College Alliance for Sustainability Education (CCASE) is a national network of community colleges that are dedicated to advancing environmental science, education, and workforce training on their campuses in order to better support resilient economies and healthy environments in the communities they serve. NCSE provides its community college member institutions with a range of critical resources and opportunities to reach these goals.

CCASE leaders work together with NCSE to support and advance:

- The quality of interdisciplinary environmental and science education and workforce training
- The role of community colleges in opportunities for education, career, and economy
- Collaboration with other community colleges, four-year higher education institutions, and federal agencies

NCSE engages CCASE by providing a national platform for the advancement of science and education, collaborative and diverse funding opportunities, and partnerships with other NCSE members and stakeholders, including government and academia. To learn more about CCASE, please contact CCASE President Stephen Summers at <a href="mailto:summers@seminolestate.edu">summers@seminolestate.edu</a> or Michelle Wyman at <a href="mailto:mwyman@ncseglobal.org">mwyman@ncseglobal.org</a>.

#### **Center for Environmental Education Research (CEER)**

The NCSE Center for Environmental Education Research (CEER) serves as the premier U.S. research organization focused on advancing the evolving fields of interdisciplinary environmental, sustainability, and energy (IESE) higher education. CEER's ongoing research documents and analyzes the scope, defining characteristics, administrative structures, and curricula design of IESE academic and research programs at U.S. colleges and universities and tracks national trends in these innovative and rapidly changing fields.

NCSE members benefit from access to CEER's exclusive series of research reports and customized member services that draw upon CEER's extensive expertise and national datasets. CEER provides external evaluation services for projects and coordinates collaborations with NCSE education leaders groups (CEDD, CCASE, CEREL, and AESS). Researchers at member institutions may also draw upon CEER's extensive data for partner research projects focused on IESE education and research.

Research reports to look forward to in 2017 include:

- Reports on results from the 2016 census of interdisciplinary environmental, sustainability and energy academic
  programs and research institutes and centers
- Resources report summarizing key documents on current core competency standards, frameworks, and surveys
  of employers and working professionals in the environmental and sustainability fields
- Research report analyzing learning outcomes for interdisciplinary environmental, sustainability, and energy academic programs

To learn more about this program, contact Dr. Shirley Vincent, Director of CEER, at svincent@ncseglobal.org.

#### Council of Energy Research and Education Leaders (CEREL)

The Council of Energy Research and Education Leaders (CEREL) is a multidisciplinary membership organization made up of heads of academic energy research and education centers, institutes, and programs. It provides the means for leaders in energy research, education, and communication to collaboratively use knowledge about energy to improve education, decision–making, and the overall well-being of society.

CEREL works to:

- · Increase the contributions of university energy research and education to the challenges facing society
- Promote the exchange of information and knowledge to create, foster, and encourage cooperative efforts among members of CEREL and other scientists and engineers; federal, state, and local agencies; business; and nongovernmental organizations
- Elevate awareness of the role of energy in human affairs across every segment of society
- Support efforts to advance knowledge and learning in the interdisciplinary energy fields (engineering, agriculture, the humanities, and physical, biological, and social sciences)

To learn more about this program, contact Dr. David Blockstein, Executive Secretary of CEREL and Senior Scientist at NCSE, at david@ncseglobal.org.



#### **EnvironMentors**

EnvironMentors is NCSE's youth mentoring and college preparation program for underrepresented high school students across the country. With the guidance of individual mentors, EnvironMentors students gain exposure to environmentally-related Science, Technology, Engineering, and Math (STEM) degrees and careers and enhance their research, critical thinking, and communication skills. The National Fair and Awards Ceremony is EnvironMentors' penultimate event, with students from all over the country traveling to Washington, DC to present their research and compete for college scholarships. Since 1992, the program has paired over 2,000 high school students with mentors through its network throughout the country.

#### **Current Chapters**

Alabama State University	Heritage University	University of California, Davis
Arkansas State University	Kean University	University of Nebraska-Lincoln
Colorado State University	Louisiana State University	West Virginia University
Future City, Inc.	North Carolina State University	Widener University

#### Start a Chapter, Support the EnvironMentors Scholarship Fund, or Learn More:

Contact Jessica Soule, Director of Strategic Initiatives and Program Development, at <a href="mailto:jessica">jessica Soule, Director of Strategic Initiatives and Program Development, at <a href="mailto:jessica">jessica Soule, Director of Strategic Initiatives and Program Development, at <a href="mailto:jessica">jessica Soule, Director of Strategic Initiatives and Program Development, at <a href="mailto:jessica">jessica Soule, Director of Strategic Initiatives and Program Development, at <a href="mailto:jessica">jessica Soule, Director of Strategic Initiatives and Program Development, at <a href="mailto:jessica">jessica Jessica Je

#### **Student Network**

The Student Network is a new initiative that invests in and strengthens support for today's students – across disciplines, geography, and institutional levels – to cultivate their interest in science, service, and the environment. Together we will harness resources, foster knowledge, establish partnerships, and create connections for the benefit of students as they develop and enhance their academic, professional, and leadership skills.

From its inception, the Student Network has been student-inspired, student-focused, and student-driven. A group of college students approached NCSE Leadership in early 2016 with a proposal to elevate students' role and voice across the organization and its membership. These pioneering students envisioned a network that supports greater alignment, collaboration, and communication between students across campuses and disciplines, and that fosters relationships of depth and substance with faculty, professionals, and other leaders in their fields.

#### **Member Benefits**

Students will join the network as individual members with exclusive access to:

- Representation and voice across the NCSE network and beyond
- Mentoring, career development opportunities and other resources
- Participation and leadership in NCSE events

#### Join the Leadership Team

The Student Network is now recruiting volunteers for inaugural leadership positions in 2017. Join the leadership team today. Contact Jessica Soule, Director of Strategic Initiatives and Program Development, at <a href="mailto:jsoule@ncseglobal.org">jsoule@ncseglobal.org</a> to learn more and apply.



#### I. NCSE Leadership Forum

The NCSE Leadership Forum will be launched in early 2017 to facilitate high-level and ongoing engagement between senior principals from federal agencies, leading university deans and directors, scientists, state and local government officials, and industry. Forum members will identify, discuss, and focus on science and the environment across sectors and across the country through collaboration. The Leadership Forum will focus on select priorities that are determined by the leaders participating in the Leadership Forum. Participation in the Leadership Forum is by invitation only. NCSE Contact: Michelle Wyman, Executive Director, mwyman@ncseglobal.org

#### **II. NCSE Science Briefs**

The NCSE Science Briefs will provide non-partisan and accurate information and leadership to inform the most important, policy-relevant issues at the intersection of science and society. The Science Briefs, produced quarterly, will:

- Identify appropriate and relevant scientific information to inform issues of national importance
- Raise awareness and increase use of science for policy decisions
- Elevate scientific research and work being done at NCSE member institutions nationally and internationally The content of the *Science Briefs* will be developed by NCSE through the Council of Environmental Deans and Directors. NCSE Contact: Jessica Soule, Director of Strategic Initiatives and Program Development, jsoule@ncseglobal.org

#### III. Engagement with Government

NCSE has a longstanding history and commitment to working with all levels of government. Going forward, NCSE will accelerate its work with government to leverage leadership, research, economic development opportunities (that include workforce training), and sustainable development. By virtue of its mission, NCSE will pursue all opportunities to inform policy and decision–making with science, and pair opportunities between the institutes of higher education and federal, state and local government.

One example of NCSE's partnership with government is the Governors' Accord for a New Energy Future (Accord). The Accord is a bipartisan initiative that helps states capture clean energy opportunities across the country and tackle growing energy challenges. States involved in the Accord will:

- Diversify energy generation and expand clean energy sources
- Modernize energy infrastructure
- Encourage clean transportation options
- Plan for energy transition
- Work together to make transformational policy changes
- Secure a stronger national energy future

The Accord was announced in February 2016 by a bipartisan group of seventeen governors and represents more than 123 million people and 35 percent of all electricity consumed in the United States through the Accord states.

NCSE Contact: Michelle Wyman, Executive Director, mwyman@ncseglobal.org

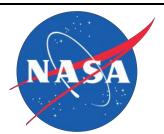
#### IV. International Initiatives

In 2017, NCSE will establish membership and collaboration opportunities to engage with international universities, research institutes, governments, and other stakeholders. This initiative is in response to strong interest from colleagues in countries around the world to collaborate with, and have closer ties to, the NCSE community. NCSE will develop and pursue opportunities to deepen its engagement internationally. If you are interested in additional information or would like to be involved in NCSE's emerging international work, please contact NCSE directly. *NCSE Contact: Peter Illig, Senior Fellow, Global Affairs, pillig@ncseglobal.org* 

# National Council for Science and the Environment 17<sup>th</sup> National Conference and Global Forum on Science, Policy, and the Environment

## **Gold Sponsor**













## **Bronze Sponsor**



## **Supporter**





