## 2016 APLU Council on Research Summer Meeting

Waterfront Place Hotel, 2 Waterfront Place, Morgantown, WV

### Sunday, July 31

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<tr>
<td>7:00 AM – 9:00 AM</td>
<td>Workshop Registration</td>
<td>Foyer E</td>
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<td>(Workshop registrants only.)</td>
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<tr>
<td>8:00 AM – 4:30 PM</td>
<td>New and Future VPR Workshop</td>
<td>Salon E</td>
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<td>(Workshop registrants only.)</td>
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<td>3:30 PM – 5:30 PM</td>
<td>General Registration</td>
<td>Foyer E</td>
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<td>5:30 PM – 7:00 PM</td>
<td>Opening Reception</td>
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<td>(All registrants and guests welcome.)</td>
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**Unpacking the Position of Vice President/Provost/Chancellor for Research**

**Speaker:** Kelvin Droegemeier, Vice President for Research at the University of Oklahoma, Past Vice Chair of the National Science Board

### Monday, August 1

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<td>7:00 AM - 1:00 PM</td>
<td>General registration</td>
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<tr>
<td>7:30 AM – 8:30 AM</td>
<td>Concurrent Breakfasts</td>
<td>Salon A-C</td>
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<td>Breakfast (General)</td>
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<td>(All CoR attendees welcome.)</td>
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<td></td>
<td>Associate SRO Breakfast</td>
<td>Wharf AB</td>
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<td>(Breakfast meeting for Associate SROs.)</td>
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Executive Committee Breakfast  
(Salon D)  
(Executive Committee members only.)

8:30 AM – 8:45 AM  
**Welcoming Remarks**  
Salon E-H

Richard Marchase, Chair of the Council on Research and Vice President for Research, University of Alabama, Birmingham

8:45 AM – 10:00 AM  
**Session I**  
Salon E-H

**On Open and Public Access: What does this mean for your university?**

Organizer:  
Sandra Brown, Vice President for Research, University of California, San Diego

Speakers:  
Philip Bourne, Associate Director for Data Science, National Institutes of Health  
James Kurose, Assistant Director for Computer and Information Science and Engineering, National Science Foundation  
Brian Schottlaender, Audrey Geisel University Librarian, University of California, San Diego  
Carrie Wolinetz, Associate Director for Science Policy and Director of the Office of Science Policy, National Institutes of Health

Moderator: Sandra Brown, Vice President for Research, University of California, San Diego

**Abstract**

The national movement toward open and public access to research data has important implications for universities. This session focuses on the new policies and framework for open access implementation, Big Data examples from national experts, as well as data management, curation and cost considerations will be provided.

Compliance with the Office of Science and Technology Policy mandate ("Increasing Access to Results of Federally Funded Scientific Research") is an institutional obligation, not an individual researcher’s obligation. As such, it presents research universities with a massive project management challenge, requiring evaluation
and clarification of roles in order to ensure coordination amongst various campus stakeholder groups.

Speakers will describe this challenge in more detail, and strategies for addressing it. Included will be a detailed consideration of two of those strategies in particular, ORCID and SHARE, the latter a joint initiative of APLU, the Association of Research Libraries (ARL), and the Association of American Universities (AAU). This talk will provide real-world examples of successful implementations.

10:00 AM – 10:15 AM Break Salon E-H
10:15 AM – 11:30 AM Session II – Laboratory Safety Salon E-H

Organizers:
Taylor Eighmy, Vice Chancellor for Research and Engagement,
University of Tennessee, Knoxville
Mark McLellan, Vice President for Research, Utah State University

Speakers:
Lorne Babiuk, Vice President/Research, University of Alberta
Michael Brantmayer, AECOM ES&H Director for NETL
Andrés Gil, Vice President for Research and Economic Development, Florida International University
Mark McLellan, Vice President for Research, Utah State University
Caroline Whitacre, Vice President for Research, The Ohio State University

Moderator: Kacy Redd, Director, Science and Mathematics Education Policy, APLU

Abstract
The Task Force on Laboratory Safety released A Guide to Implementing a Safety Culture in Our Universities in the Spring of 2016. The guide included 20 recommendations with associated tools and resources to help campuses advance each recommendation. We will ask VPRS to share recent changes on their campus that have had a positive impact on safety.

11:30 AM – 12:00 PM Transit to the National Energy Technology Lab, Morgantown
12:00 PM - 3:45 PM Field Trip - Visit and Tour of the National Energy Technology Laboratory (NETL)
Organizer: Fred King, Vice President for Research, West Virginia University

1:00 PM - 1:15 PM
Welcome and NETL Overview
Dr. Cynthia Powell, Deputy Director of Science & Technology Strategic Plans & Programs

1:15 PM - 2:35 PM
Safety Video and Tour of Research and Innovation Center Facilities

Multiphase Computational Fluid Dynamics Modeling
Dr. Chris Guenther, B2, Visualization Laboratory
With the help of science-based simulations, NETL is accelerating fossil energy technology development. This is achieved through atomistic scale modeling, computational multiphase flow, process systems engineering, data science, and high performance computing. Simulations generate information beyond the reach of experiments alone, predicting for example the properties and performance of materials yet to be synthesized or devices yet to be built. Speeding up discovery of new materials, increasing performance of novel devices, and reducing risk in scale-up will help NETL to reduce the cost and time of technology development. All three NETL laboratory sites are connected to its SuperComputer, which is one of the world’s fastest high-performance computers.

Solid Oxide Fuel Cells Research
Dr. Harry Abernathy, B4, SOFC Test Laboratory
These laboratories provide researchers access to fundamental and applied performance data as well as models and simulations that describe the structure, operation, and evolution of solid oxide fuel cells. The laboratories are equipped to test solid oxide fuel cells and component materials at temperatures up to 1000 °C, and under various gas atmospheres and operational conditions. The laboratories include conventional SOFC fabrication and analysis devices, an advanced manufacturing electrode infiltration device, a mobile fuel cell test array, and contaminant exposure test facilities.

Chemical Looping for Clean Power Generation
Dr. Doug Straub/Dr. Justin Weber Chemical Looping Reactor Facility

Chemical looping systems produce oxygen internal to the process, eliminating the large capital, operating, and energy costs associated with oxygen generation. Chemical looping combustion (CLC) is considered a “transformational” technology with the potential to meet program cost and performance goals. This lab includes a pilot-scale chemical looping reactor that is used to develop and refine oxygen carriers with sufficient oxygen capacity, durability to withstand harsh CLC environments, and acceptable cost; develop effective and sustainable solids circulation and separation techniques; improve reactor design to support fuel and oxygen carrier choices; develop effective heat recovery and integration; and test and optimize overall system design.

Geomaterial Characterization

Dr. Dustin Crandall B17, Geological Sciences Laboratory

This laboratory is home to NETL’s Computer-Aided Tomography (CT) capability, which are used to obtain data of flow dynamics and internal structure of geologic media. The lab’s three CT scanners—medical, industrial and micro—enable researchers to examine different phenomena: from dynamic fluid-floods within rocks at in-situ conditions to the isolation complex of pore structures and material features. Research in this facility is focused on examining the fundamental physical phenomena that control flow in the subsurface, including geologic carbon storage, gas/oil production, well bore integrity, and flow through fractured rock. Researchers work to develop quantifiable relationships of fluid-rock interactions under relevant subsurface conditions so they can be applied to improved models describing the behavior of larger natural systems.
Tuesday, August 2

8:00 AM – 9:00 AM  CoR Business Meeting and Breakfast  Salon A-E
(All CoR attendees welcome.)

9:00 AM – 9:15 AM  Break  Salon A-E

9:15 AM – 10:30 AM  Session III  Salon A-E
Opportunities and Challenges of Federal SBIR and STTR Grant Programs at Public Universities

Organizers:
Andrés Gil, Vice President for Research and Economic Development, Florida International University
David Norton, Vice President for Research, University of Florida
Gary K. Ostrander, Vice President for Research, Florida State University

Speakers:
James Greenwood, President, Greenwood Consulting Group, Inc.
Edward Knobbe, President and CEO, Spectrum Photonics, Inc.
Timothy Morey, Professor of Anesthesiology; Chairman, Department of Anesthesiology, College of Medicine, University of Florida
David Norton, Vice President for Research, University of Florida
Gary K. Ostrander, Vice President for Research, Florida State University

Abstract

The Federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs expand opportunities for public-private partnerships in research, and strengthen the lab to market pipeline. This session will explore SBIR/STTR issues specific to universities, including management of conflicts of interest, intellectual property, space, and other concerns. Following a robust introduction to the programs, an expert panel will present the perspectives of faculty and administrators who have directly engaged with them.

10:30 AM – 10:45 AM  Break  Salon A-E
Session IV

Making a Difference: Effective Execution of Transdisciplinary Research

Organizers:
Taylor Eighmy, Vice Chancellor for Research and Engagement, University of Tennessee, Knoxville
Mridul Gautam, Vice President for Research and Innovation, University of Nevada, Reno
Howard Gobstein, Executive Vice President, APLU
Chris Keane, Vice President for Research, Washington State University

Speakers:
Dan Carder, Director, Center for Alternative Fuels, Engines and Emissions, West Virginia University
Taylor Eighmy, Vice Chancellor for Research and Engagement, University of Tennessee, Knoxville
Chris Keane, Vice President for Research, Washington State University
Robert McGrath, Director, Renewable and Sustainable Energy Institute, University of Colorado, Boulder

Abstract

Many U.S. and international universities have launched efforts to address large, transdisciplinary research problems with broad societal impacts. These may be referred to as “Grand Challenges,” “Strategic Research Initiatives,” or “Research Themes.” CoR discussed how to formulate these “Grand Challenges” and assemble the associated transdisciplinary teams, at the 2015 APLU Annual Meeting. The current session builds on that discussion and provides university research leaders practical actions to improve the execution of transdisciplinary research projects. Much of the discussion will focus on university research centers and how they facilitate transdisciplinary research, including industrial involvement. University and federal leaders involved in
transdisciplinary research will describe key “lessons learned” on topics including:

- **Leadership and organization:** Identifying and building leaders for multidisciplinary teams; organizing and managing multidisciplinary activities; and building partnerships with industry, government, foundations, and other collaborators
- **Resources:** The impact of multidisciplinary research on university funding priorities and infrastructure, faculty hiring and promotion, and fundraising
- **Communications:** Enhancing communication between units; external communications; and integrating multidisciplinary research goals with the university’s broader communication strategy

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<td>1:15 PM – 2:15 PM</td>
<td>Joint CoR/CGA Session 1</td>
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<td>2:15 PM – 3:00 PM</td>
<td>Joint CoR/CGA 2</td>
<td>Salon A-E</td>
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**Congressional Perspective**

**Introduction:**
Rob Alsop, Vice President for Legal and Governmental Affairs and Entrepreneurial Engagement, West Virginia University

**Speaker:**
U.S. Representative David McKinley (R-WV)

**Why Should I Care About EPSCoR/IDeA?**

**Moderator:**
Eric King, Director of Federal Relations, University of Kentucky

**Speakers:**
Kelvin Droegemeier, Vice President for Research at the University of Oklahoma, Past Vice Chair of the National Science Board
Fred King, Vice President for Research, West Virginia University
Tom Quinn, Associate Vice President, Van Scyoc Associates, Member of the EPSCoR/IDeA Foundation
David Shaw – Vice President for Research & Economic Development, Mississippi State University, Member of APLU
CoR Executive Committee, Member of EPSCoR/IDeA Coalition Board

Abstract
To help inform attendees from non-EPSCoR/IDeA states about what the EPSCoR/IDeA programs are all about and why they are important beyond the borders of eligible states. The panel will discuss the benefits of the program within EPSCoR/IDeA jurisdictions and how that translates to non-EPSCoR/IDeA states and universities. Strong academic research centers are important to every state in order to provide sound education and research opportunities for students (most students attend college within 50 miles of home), a trained workforce, and support for both existing and emerging businesses. Science and technological research cannot be limited to a few states if the nation is to maintain world leadership and reach its full potential. Researchers in EPSCoR/IDeA states are needed in an era when different regions have unique issues and expertise involving natural resources, health, energy, security, and the environment.

3:00 PM – 4:00 PM

Joint CoR/CGA Session 3
Salon A-E

Science and Research Initiatives for the New Administration and Congress (small group discussion)

Facilitators:
Mike Frame, Director of Federal Relations, Florida State University
Howard Gobstein, Executive Vice President, APLU
Jennifer Poulakidas, Vice President, Congressional & Governmental Affairs, APLU

Abstract
The current presidential administration has launched many signature initiatives that stimulate and build on research and scientific capacity. These include national initiatives on nanotechnology, advanced manufacturing, precision medicine, the microbiome, neuroscience, cancer, and others. What current presidential, or national, research initiatives would you want to ensure carry over into the next administration and the next Congress? In this discussion-based session, CGA and CoR members
will collaborate to identify those initiatives deemed most critical for continued support. These discussions will also help inform APLU’s developing “Framework for the next Administration” – a view of federal priorities for the next administration and new Congress, from public research universities.

4:00 PM – 4:15 PM  Break  Salon A-E

4:15 PM – 5:30 PM  Joint CoR/CGA Session 4  Salon A-E

Effectively Engaging in Research Promotion and Advocacy

Facilitators:
Richard Marchase, Vice President for Research and Economic Development, University of Alabama at Birmingham, and CoR Executive Committee Chair
Stacy Rastauskas, Vice President for Government Relations, The Ohio State University, and CGA Executive Committee Chair

Abstract
Building on joint work in 2015, this interactive session will engage CoR and CGA members in considering major challenges and successful practices to improve research promotion and advocacy. Please come prepared to share one or more best examples of how your institution promotes and advocates research. (For example: How you cultivate and amplify campus research stories or build partnerships with local businesses or effectively use social media.)

5:30 PM – 6:15 PM  Joint CoR/CGA Session 5  Salon A-E

Catalyzing Industry-University Engagement with Third Party Support

Moderator:
Steve Beckham, Director of Federal Relations, University of South Carolina

Speakers:
Anthony Boccanfuso, President, University Industry Demonstration Partnership
Lee Ellen Drechsler, Director, Corporate Research & Development, The Procter & Gamble Company
Caroline Whitacre, Vice President for Research, The Ohio State University

6:15 PM – 6:20 PM  Welcoming remarks  Salon A-E
WVU President Gordon Gee (video)

6:20 PM – 7:30 PM  Joint CoR/CGA Reception  MEC Lobby
APLU gratefully recognizes the University Industry Demonstration Partnership for its sponsorship of this reception.

Wednesday, August 3

7:30 AM – 9:00 AM  Associate SRO Breakfast Session II  Waterfront
(This is a concurrent session, and we invite all Associate SROs.)

8:00 AM – 9:00 AM  Breakfast  Salon A-C

9:00 AM – 9:15 AM  Break

9:15 AM – 10:30 AM  Session IX  Salon D
Research Integrity: Best Practices

Organizers:
Jim Rankin, Vice Provost for Research and Economic Development, University of Arkansas
David Shaw, Vice President for Research and Economic Development, Mississippi State University
Kalliat Valsaraj, Vice Chancellor of Research and Economic Development, Louisiana State University

Speaker:
Kathryn Partin, Director, Office of Research Integrity, U.S. Department of Health and Human Services
Jim Rankin, Vice Provost for Research and Economic Development, University of Arkansas
David Shaw, Vice President for Research and Economic Development, Mississippi State University
Kalliat Valsaraj, Vice Chancellor of Research and Economic Development, Louisiana State University
Abstract

This session examines Research Integrity and as well as the current implementation of the Responsible Conduct of Research. The session will start with a keynote presentation on ethics. The session will then transition to a review of a VPR survey on how the RCR components are implemented at APLU universities. The RCR components include human subjects, animal use, conflict of interest, and data management. Other related topics include RCR training tools and the application of FOIA to university research. The survey review will include an interactive discussion with session attendees that will highlight best practices, related issues, and anecdotal information related to research integrity.

10:30 AM – 10:45 AM Break Salon D

10:45 AM – 12:00 PM Session X Salon D

Capitalizing on Regulatory Reform to Reduce Administrative Burden

Speakers:

Anthony DeCrappeo, President, Council on Governmental Relations

Jeremy Forsberg, Assistant Vice President for Research, University of Texas, Arlington

Lisa Mosley, Assistant Vice President of Research Operations, Arizona State University

David Ngo, Assistant Vice President of Sponsored Programs Administration, University of Texas Southwestern

Abstract

The administrative burden placed on faculty and institutions performing research continues to be a major area of concern for the research enterprise at the federal and university level. Publications from the National Science Board (2014), National Academies of Sciences (2015), and the Federal Demonstration Partnership (Survey in 2005 and 2012) have reported or documented the extent in which the administrative burden placed on faculty can hinder the
affordability and facilitation of science. One intent of the Uniform Guidance (2 CFR 200) was to address these burdens by streamlining policy requirements and focusing on research outcomes. Will universities adopt the changes available to them in the Uniform Guidance to help reduce research burden?

This session will focus on the current and future landscape of regulatory reform and university initiatives to streamline and reduce administrative burden. Panelists will also discuss a funded research initiative to demonstrate and measure that by adopting best practices for policy development and using informed risk assessments, universities can reduce administrative burden, minimize audit risk and facilitate the advancement of science.