

# NIH and the Science of Science and Innovation Policy: A Joint NIH-NSF Workshop

April 7–8, 2016

Natcher Conference Center (Building 45)

National Institutes of Health

Bethesda, MD

*Co-sponsored by the National Science Foundation (NSF) program on Science of Science and Innovation Policy (SciSIP) and the National Institutes of Health (NIH) Office of Science Policy (OSP), Office of Extramural Research (OER), and Office of Portfolio Analysis (OPA)/Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI)*

## THURSDAY, APRIL 7

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### 12:00–12:15 p.m.: Welcome and Opening Remarks

- **Jim Anderson, M.D., Ph.D.**, Deputy Director for Program Coordination, Planning, and Strategic Initiatives, NIH
- **Carrie Wolinetz, Ph.D.**, Associate Director for Science Policy, NIH

### 12:15–12:45 p.m.: Keynote Address—Evidence—Based Funding: The Funder's Perspective

- **Michael Lauer, M.D.**, Deputy Director for Extramural Research, NIH

### 12:45–1:15 p.m.: NSF's Science of Science and Innovation Policy Program

- **Maryann Feldman, Ph.D.**, Program Director, SciSIP program, NSF
- **Joshua Rosenbloom, Ph.D.**, Professor and Chair, Department of Economics, Iowa State University

### 1:15–1:30 p.m.: BREAK



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### 1:30–2:30 p.m.: Using NIH’s Administrative Data

- **Reforms to Enhance Rigor and Reproducibility**, Luci Roberts, Ph.D., Director, Division of Planning, Evaluation, and Analysis, OER, NIH
- **Using Publicly Available Data**, Brian Haugen, Ph.D., and Bill Duval, Ph.D., OER, NIH
- **NIH’s Data Use and Access Policies**, Katrina Pearson, Chief, Statistical Analysis and Reporting Branch, OER, NIH

### 2:30–3:00 p.m.: NIH Challenges in Portfolio Analysis, George Santangelo, Ph.D., Director, OPA, DPCPSI, NIH

### 3:00–3:15 p.m.: BREAK

### 3:15–3:45 p.m.: Data-Driven Decision Making from an IC Director’s Perspective, Jon Lorsch, Ph.D., Director, National Institute of General Medical Sciences, NIH

### 3:45–4:00 p.m.: Bridging “Theory” and “Practice for Use of Administrative Data in Program Comparison: Data Challenges and Interpretability, Sean Hanlon, Ph.D., Deputy Director, Center for Strategic Scientific Initiatives, NCI, NIH

### 4:00–5:10 p.m.: Science of Open Science: Data Sharing and Open Access Policies (Moderator: Luci Roberts)

- 4:00–4:20 p.m.: NIH Perspective
  - **Needed: A Science of Open Science for NIH**, Mike Huerta, Ph.D., Associate Director for Program Development, National Library of Medicine, NIH
- 4:20–4:50 p.m.: Extramural Researchers
  - **Understanding the Impacts of NIH Public Access Policy**, Zhen Lei, Ph.D., Associate Professor of Energy and Environmental Economics, Penn State
  - **From Data to Knowledge: Theoretical and Methodological Implications of CI-Enabled Data Repositories on Impact Assessment**, Jian Qin, Ph.D., Jeffrey Joe Hemsley, Ph.D., and Mark Costa, School of Information Studies, Syracuse University
- 4:50–5:10 p.m.: Panel Discussion—Data Challenges, Needs, and Areas of Shared Interest

### 5:10–5:30 p.m.: NIH-NSF SciSIP Collaborations (Workshop Organizers: Maryann Feldman, Joshua Rosenbloom, Marina Volkov, Luci Roberts, and George Santangelo)

## FRIDAY, APRIL 8

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### 8:30–10:10 a.m.: Optimizing the Biomedical Research Workforce (Moderator: Joshua Rosenbloom)

- 8:30–8:45 a.m.: NIH Perspective
  - **Modeling the Physician-Scientist Workforce**, Misty Heggeness, Ph.D., Division of Biomedical Research Workforce, Office of Extramural Programs, NIH
- 8:45–9:45 a.m.: Extramural Researchers
  - **Race, Ethnicity, and Gender in NIH Awards—Using Administrative Data to Understand Diversity in Science**, Donna Ginther, Ph.D., Professor of Economics and the Director of the Center for Science Technology & Economic Policy, Institute for Policy & Social Research, University of Kansas
  - **The Scientific Workforce: Patterns, Trends, and Value**, Bruce Weinberg, Ph.D., Professor of Economics and Public Administration, The Ohio State University
  - **Studying Effects of Training Environments on STEM Workforce Diversity**, Margaret Blume-Kohout, Ph.D., Senior Research Economist, New Mexico Consortium
  - **Investigating the Scientific Workforce in the Biomedical Sciences Using SESTAT**, Sharon G. Levin, Ph.D., Professor Emeritus, Department of Economics, University of Missouri–St. Louis
- 9:45–10:10 a.m.: Panel Discussion—Data Challenges, Needs, and Areas of Shared Interest

### 10:10–10:25 a.m.: BREAK

### 10:25 a.m.–12:05 p.m.: Capturing Outcomes and Impacts of Biomedical Research (Moderator: Marina Volkov)

- 10:25–10:55 a.m.: NIH Perspective
  - **Evidence of Impact: Case Studies and Data Sources**, Sara Dodson, Ph.D., Division of Science Policy Communications, Collaborations, and Reporting, OSP, NIH
  - **Challenges in Capturing Long-Term Outcomes: A View from NCI**, Jim Corrigan, Ph.D., NCI
- 10:55–11:40 a.m.: Extramural Researchers
  - **The Returns from NIH Extramural research: Measurement and Strategy**, Joshua Graff Zivin, Ph.D., Professor of Economics, Co-Director of the Global Health Initiative, University of California, San Diego

- **Modeling Drug and Medical Device Innovation as Sequences of Activities Using EventFlow**, C. Scott Dempwolf, Ph.D., Assistant Research Professor, Urban Studies and Planning Program, University of Maryland, College Park
- **Linking NIH Grants to Drugs: Bibliometric Approaches and Their Limits**, Bhaven N. Sampat, Ph.D., Associate Professor, Department of Health Policy and Management, Columbia University
- 11:40–12:05 p.m.: Panel Discussion—Data Challenges, Needs, and Areas of Shared Interest

### 12:05–1:00 p.m.: LUNCH ON YOUR OWN

### 1:00–2:30 p.m.: Fostering Cross-Cutting Research and Team Science (Moderator: Ian Hutchins, OPA)

- 1:00–1:15 p.m.: NIH Perspective
  - **Planning and Assessing NIH Common Fund Programs**, Elizabeth Wilder, Ph.D., Office of Strategic Coordination, DPCPSI, NIH
- 1:15–2:00 p.m.: Extramural Researchers
  - **Measuring Collaboration and Outcomes from Interdisciplinary R&D**, Beverly Tyler, Ph.D., Professor, Department of Management, Innovation and Entrepreneurship, North Carolina State University
  - **Impact of Interdisciplinary Teams on Translational Science**, Griffin Weber, Ph.D., Head of the Knowledge Discovery & Management Group, Harvard Medical School
  - **Researching Multilateral Coopetition in the Pharmaceutical Industry**, Joel West, Ph.D., Professor of Innovation and Entrepreneurship, Keck Graduate Institute
- 2:00–2:30 p.m.: Panel Discussion—Data Challenges, Needs, and Areas of Shared Interest

### 2:30–3:00 p.m.: Synthesis and Closing Remarks (Workshop Organizers: Maryann Feldman, Joshua Rosenbloom, Marina Volkov, Luci Roberts, and George Santangelo)