MONUMENTAL

OPPORTUNITIES AT THE INTERSECTION OF

Science & Policy

Cynthia Robinson
Director, S& Policy Fellowships

@AAASFellowships fellowshipships.aaas.org
“Today, more than ever before, science holds the key to our survival as a planet and our security and prosperity as a nation.”

— President Barack Obama
2009 Presidential Memorandum on Scientific Integrity
What is Science Policy?

Policy for Science

Establish guidelines and regulations on the direction, funding, and conduct of science

Science for Policy

Inform decision-making, implementation, and evaluation of policies, regulations and programs
Transferable Skills

**SCIENCE**
- Develop hypothesis, test, analyze results
- Design, implement, manage experiments and studies
- Curiosity, analytical skills, investigate using different research methodologies
- Integrate information from disparate sources, generalize from data, ascertain patterns

**POLICY AND BEYOND**
- Creativity, problem-solving, reach conclusions
- Project management, ability to focus and multi-task
- Objectivity, ability to consider other positions, alternate options
- Technical expertise coupled with interdisciplinary and systems thinking
Transferable Skills

**SCIENCE**
- Suspend judgment, work with ambiguity
- Poster, paper presentations
- Relay complex concepts, support position with data and logic
- Write and publish papers
- Write proposals, secure grants

**POLICY AND BEYOND**
- Open-minded, flexible, persistent
- Public speaking
- Persuasive, resourceful communicator; rational thinker
- Writing and editing skills
- Fundraising, grant management
Abilities to Develop

• Frame issues and messages
• Communicate to non-scientific audiences - concise, bottom-line focus
• Write in policy language
• Strategic planning and timing
• Negotiation, persuasion, diplomacy
• Network, build alliances
• Collaborate, foster consensus
• Respond in necessary timeframes
• Balance return on investment
Explore

Assess your interests, strengths, areas for growth, preferred work environment:

Career counseling
Personality assessment
Capability assessment
Values assessment

Research science-policy employers:

• local/state/federal/international entities; national laboratories, government contractors
• think tanks and consulting firms
• scientific and engineering associations
• nonprofit organizations, industry, academia
Explore

Network with people working in policy
- Opportunities, challenges, rewards
- Types of projects, work flow and environment
- Skills needed, stakeholders engaged
- Trends in the sector or field
- Salary ranges
- Paths to current position

Experiment with assignments
- Societies
  - policy committees
  - Congressional Hill visits
  - government relations offices
- Internships and fellowships
Policy Fellowships Offer:

- Knowledge of:
  - Interactions of branches of government
  - Balance and flow of power
  - Federal budget
  - Policymaking processes
  - Procedure

- Understanding of stakeholders and factors affecting policy

- Political awareness
Fellowships & Resources

AAAS S&T Policy Fellowships
fellowships.aaas.org  Deadline: Nov 1
  • Partner Society Fellowships
  • Resource section on other fellowships

AAAS Mass Media Science & Engineering Fellowships
www.aaas.org/programs/education/MassMedia

California S&T Policy Fellowships
www.fellows.ccst.us

ScienceCareers.org

Professional Association Career Resources
Enhancing Public Policy
Transforming Careers

**GOAL:** Foster scientifically informed, evidence-based policy and practice.

**STRATEGY:** Engage scientists and engineers from a broad range of disciplines, backgrounds and career stages to:

- contribute knowledge and analytical skills to the federal government;
- learn first-hand about policymaking and implementation at the federal level; and
- build S&T leadership equipped to address complex societal challenges.

**OUTPUT:** Policy-savvy scientists & engineers
**Legislative Branch**

- Collect, analyze information
- Research options
- Meet with stakeholders
- Write: briefings, talking points, speeches, press releases, reports, text for bills
- Organize hearings
- Facilitate, negotiate legislation
- Oversight

**Executive Branch**

- Collect, analyze information
- Research options
- Meet with stakeholders
- Write: briefings, talking points, speeches, press releases, reports, websites, testimony
- Prep for hearings
- Program development, implementation, evaluation
- Interagency collaboration
Serving Society: Congress

- Organized press conference to announce a proposed bill on early warning systems following the Asian earthquake and tsunami

- Wrote text for a bill on water quality restoration for the Colorado River

- Coordinated oversight investigation of food safety issues and handling of peanut product recall
Serving Society: Federal Agencies

- Assisted in developing U.S. counter-piracy strategy for the Horn of Africa
- Orchestrated distribution of more than $5 million in famine funds to provide rust resistant wheat seed
- Organized workshop on environmental impact assessment in Oman.
Global Alliance for Clean Cookstoves

Alliance is developing standards for the cookstove sector and facilitating partnerships and activities leading to the widespread adoption of clean cookstoves

Dr. Raynee Chiang, contributing author an IPCC report, working on international collaborations to build and disseminate clean, efficient cookstoves to households in developing countries

Raynee Chiang, 2010-12 Fellow at Department of Energy, in Uganda working on clean stove initiatives in the field
2012-2013 AAAS S&T Policy Fellows

279 Year-long Fellows
- 176 first year
- 103 second-year
- 6 short-term extensions

245 Executive Branch Fellows
- 235 selected & administered by AAAS
- 10 selected & administered by partner societies

34 Congressional Fellows
- 2 selected & sponsored by AAAS
- 32 selected & sponsored by partner societies
2012-13 Fellows’ Discipline

Yearlong Fellows (n=200; Yr1 and Yr2 via AAAS only)

- Biological Sciences: 59%
- Social Sciences: 22%
- Physical Sciences: 26%
- Health/Medical Sciences: 26%
- Geosciences: 15%
- Engineering/Computer Sciences: 21%
- Arts and Humanities: 5%
Fellowship Areas

Diplomacy, Security & Development

Congressional

Energy, Environment & Agriculture

Health, Education & Human Services
2012-13 Placements

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<th>Year 2</th>
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Qualifications

- Doctoral-level degree (PhD, MD, DVM, DSc) in any scientific or engineering discipline

- Master’s degree in engineering & three years of professional engineering experience also may apply

- Hold U.S. citizenship*  

* Some partner societies accept non U.S. citizens
Criteria

• Solid S/T credentials for career stage

• Show a commitment to apply scientific or technical expertise to serve society

• Exhibit good communication skills, especially to non-scientific audiences

• Demonstrate:
  ➢ problem-solving
  ➢ initiative
  ➢ maturity, good judgment
  ➢ leadership qualities

• Match to fellowship program area
## How Competitive Are the Fellowships?

### 2013-14 Selection Statistics

<table>
<thead>
<tr>
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<th>APPS TO SCs</th>
<th>SEMI FINALISTS</th>
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<td>Total</td>
<td>841</td>
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* includes 30 dual finalists = 139 individual finalists
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<td>Applications Due*</td>
<td>November 1</td>
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<tr>
<td>Notification of Eligibility</td>
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<td>Notification of Interview</td>
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<td>Selection Interviews</td>
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<td>Exec Branch Finalist Interviews</td>
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<td>Exec Branch Placement Offers</td>
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<td>Fellowships Begin</td>
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<td>Cong Placement Interviews and Offers</td>
<td>Mid-September - October</td>
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<td>Fellowships End</td>
<td>August 31</td>
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* Note: partner societies have different application and interview deadlines
Compensation & Support

- **Compensation:** ~$74,000 – $97,000

- **Health Insurance:** Individual to family coverage

- **Relocation Reimbursement**: Up to $4,000 if relocation is >50 miles from DC

- **Travel/Training Allowance**: Up to $4,000 with prior approval

- **Professional Development:** Intensive orientation and year-long program

- **Alumni Network:** ~2,600 alumni around the world

* Varies by agency
Professional Development

- Orientation
- Skill Development & Career Workshops
- Educational Events
- Affinity Groups
- Networking

Kei Koizumi, Assistant Director for Federal R&D at the White House Office of Science and Technology Policy at a AAAS Symposium
Alumni Fellows

Dr. Kit Batten, USAID Global Climate Change Coordinator

- Coordinates all climate change activities across all bureaus in the agency

- Previously served as the science advisor to the Deputy Secretary of the Interior:
  - Communication of climate change science, adaptation strategies for cultural & natural resources
  - Mitigation strategies, including helping lead the creation of Interior's Climate Science Centers & Landscape Conservation Cooperatives

Dr. Kit Batten, USAID Global Climate Change Coordinator, Congressional Fellow, Office of Senator Joseph Lieberman, 2005-06
Alumni in Government

Frances A. Colón
Deputy Science and Technology Adviser to the Secretary of State
U.S. Department of State

U.S. Representative
Rush Holt Jr. (D-NJ)
House of Representative
U.S. Congress

Arati Prabhakar
Director
Defense Advanced Research Projects Agency (DARPA)
DoD

Julie Callahan
International Policy Manager
Center for Food Safety and Applied Nutrition
FDA
Alumni in Academia

Joe Helble
Professor and Dean
Thayer School of Engineering
Dartmouth University

Rosalyn Hobson Hargraives
Associate Professor of Engineering
Virginia Commonwealth University

Kevin Michael Foster
Professor and Executive Director
Institute for Community, University and School Partnerships
University of Texas, Austin

Rosina Bierbaum
Formerly Dean, Professor, School of Natural Resources and Environment, University of Michigan; Member of PCAST
Alumni in Private Sector

Asha Collins
Engagement Manager
Quintiles Consulting

David Lee
Associate
Booze Allen Hamilton

Andrew Robertson
Director of Regulatory Policy
Merck

Audrey Ichida
Senior Manager
ICF International
Alumni in Nonprofits

Jessica Tuchman Mathews
President
Carnegie Endowment for International Peace

Francesca Grifo
Senior Scientist and Director, Scientific Integrity, Union of Concerned Scientists

Uday Varadarajan
Senior Analyst
Climate Policy Initiative

Steven Buchsbaum
Deputy Director, Discovery Division
Bill & Melinda Gates Foundation
Thank You

For building your knowledge and skills to improve policy and implement solutions for the environment!

40 Years of Monumental **Experiences**, Fundamental **Contributions**, Substantial **Results**.

fellowships.aaas.org
Engaging at the Intersection of Science and Policy: Panelists

Noel Bakhtian, Ph.D.
ASME Congressional Fellow, U.S. Senate, Office of Sen. Jeanne Shaheen (D-NH), 2012-13
MPhil, Engineering; MS, Aeronautics and Astronautics; Ph.D. in Aeronautics and Astronautics

Sean Watts, Ph.D.
EEA Fellow, Directorate for Biological Sciences, Division of Environmental Biology, National Science Foundation, 2011-13
Ph.D. in Ecology

Kelly Visconti, M.S., P.E.
Technology Manager, Advanced Manufacturing Office - U.S. Department of Energy
MS in Civil & Environmental Engineering