Your Role in Changing Hearts and Minds for Science

Mary Woolley, President and CEO, Research!America
The Kavli Foundation is dedicated to the goals of advancing science for the benefit of humanity and promoting increased public understanding and support for scientists and their work.

The Foundation's mission is implemented through an international program of research institutes, professorships, and symposia in the fields of astrophysics, nanoscience, neuroscience, and theoretical physics as well as prizes in the fields of astrophysics, nanoscience, and neuroscience.
“Everybody in the science and technology community who cares about the future of the world should be tithing 10 percent of his or her time to interacting with the public in the policy process.”

John P. Holdren, PhD
President Obama’s Science Adviser
“There is no doubt that the scientific discoveries we make here can be difficult to comprehend for a lay audience, but the implications of what we do are tremendously important for almost everyone. We firmly believe that if we are to continue getting public support as we have requested, we must also do our part to help communicate our discoveries to the outside world, both scientific and lay.”

-- La Jolla Institute website
Important for Scientists to Engage Public & Policymakers

How important is it for scientists to inform elected officials and the public about their research and its impact on society?

9% increase with those who responded ‘very important’ compared to January 2015.

Public Policies Should be Based on Science

Do you agree that public policies should be based on the best available science?

72% of Democrats and 70% of Republicans agree, compared with 57% of Independents.

Scientists Should Play Major Role in Shaping Public Policy

Do you agree or disagree that scientists should play a major role in shaping policy for the following?

- Medical and health research: 55% strongly agree, 28% somewhat agree, 8% somewhat disagree, 9% strongly disagree
- Drug safety and efficacy: 49% strongly agree, 32% somewhat agree, 7% somewhat disagree, 9% strongly disagree
- Air and water quality: 47% strongly agree, 34% somewhat agree, 7% somewhat disagree, 9% strongly disagree
- Food safety: 44% strongly agree, 34% somewhat agree, 9% somewhat disagree, 10% strongly disagree
- Environment: 42% strongly agree, 33% somewhat agree, 12% somewhat disagree, 4% strongly disagree
- Energy: 40% strongly agree, 36% somewhat agree, 12% somewhat disagree, 3% strongly disagree
- Education: 27% strongly agree, 31% somewhat agree, 21% somewhat disagree, 9% strongly disagree
- Roads, bridges, infrastructure: 23% strongly agree, 32% somewhat agree, 20% somewhat disagree, 13% strongly disagree
- National Defense: 23% strongly agree, 28% somewhat agree, 22% somewhat disagree, 14% strongly disagree
- Job creation: 21% strongly agree, 27% somewhat agree, 24% somewhat disagree, 14% strongly disagree

Important for Elected Officials to Listen to Scientists

How important is it that elected officials at all levels listen to advice from scientists?

14% increase with those who responded ‘very important’ compared to January 2015.

“Scientists deepened my understanding of the promise of embryonic stem cell research during a time when there was huge opposition in Congress and the White House for federal support of such research. This interaction led to the development of bipartisan legislation introduced by me and Rep. Diana DeGette (D-CO) in 2005 that expanded federal funding of embryonic stem cell research.”
Investment in Research Benefits California’s Economy Today

• California received $3.686 billion in NIH grants in FY16.

• 300 California businesses received NIH funding totaling $240 million for the research and development of technologies with potential commercial applications in FY16.

• In 2014, California was home to 8,762 bioscience businesses. Residents held 242,557 bioscience industry jobs, and the average annual wage in the bioscience sector was $63,551 higher than the private sector overall.

Sources: FASEB, BIO TEConomy Report
IRIs Play Important Role in San Diego Regional Economy

• Independent research institutions (IRIs) provide roughly 37,000 jobs and have a combined $4.6 billion total impact on the region’s GRP every year

• San Diego County received $833 million in NIH grants in FY16

• San Diego’s IRIs receive more NIH research funding and generate more patents than any other metro area in the U.S.

Source: San Diego Regional EDC, BIOCOM
Today’s Research Advocacy Landscape

Opportunities:

- March for Science revealed untapped public interest and advocacy potential
- Strong leadership in Congress for medical and health research
- Science aligns with many Administration objectives, including job creation, economic growth and global competitiveness

Challenges:

- Passed House tax reform legislation (H.R. 1) would increase the standard deduction without a “universal” tax credit for charitable giving, jeopardizing philanthropic giving
- The White House has placed a bullseye on the “F & A,” or “indirect” costs of research
  - Congress is blocking the OMB “10% cap” proposal, but is holding hearings on the issue that could provoke detrimental policy changes
- Behavioral and social science is undervalued and often attacked
- Labor-HHS appropriations bills target stem cell and fetal tissue research
WARNING: Failure to be an advocate can be hazardous to your research career.
Federal Funding State of Play

- Government is currently funded by a Continuing Resolution that will expire December 8, 2017; short extension likely
- The FY18 budget cap on non-defense discretionary (NDD) spending is $3 billion lower than in FY17, which forces difficult budget tradeoffs if allowed to stand
- Advocates must urge Congress to make a bipartisan budget deal to raise the budget caps.
- Absent a budget deal, federal health and science agencies will undoubtedly receive budget cuts in FY18 and FY19. (The one possible exception is NIH in FY18, for which support is strong and bipartisan.)
NIH Appropriations in Current and Constant Dollars

Source: NIH Office of the Director, Office of Budget: http://officeofbudget.od.nih.gov/
“You can change the image of things to come. But you can’t do it sitting on your hands...The science community should reach out to Congress and build bridges.”

Research!America Chair Emeritus, Former Congressman John Edward Porter
Raise the Caps

Budget cuts hurt our national priorities, inhibiting #innovation & delaying the #discoveries of today & tomorrow. #RaiseTheCaps

www.researchamerica.org/raisethecaps
When Advocacy Works: Bipartisan support achieved for NIH

- Doubling the budget in five years, ‘99-‘03
- Included in ARRA funding ‘09
- Securing $2 billion increase in FY16
- $4.8 billion (over 10 years) in 21st Century Cures
- An additional $2 billion in FY17 Omnibus bill
- Appropriations leadership, in bipartisan manner, pledges continued support in FY18
- Keeping need/value/progress in the spotlight
- Constantly cultivating champions among congressional leadership and rank and file, across the nation
NIH Buildings* Named for Policymakers

*Plaza named for Paul G. Rogers (D, FL, U.S. Representative 1955-1979) Former Chair of Research!America

**Democrats: 7**

Warren Grant Magnuson (D, WA)
• U.S. Rep (1937-1944)
• U.S. Senator (1944-1981)

Lawton Chiles (D, FL)
• U.S. Senator (1971-1989)
• Florida Governor (1991-1998)

Claude Denson Pepper (D, FL)
• U.S. Senator (1936-1951)
• U.S. Representative (1963-1989)

Joseph Lister Hill (D, AL)
• U.S. Representative (1923-1938)
• U.S. Senator (1938-1969)

Dale Bumpers (D, AR)
• Arkansas Governor (1971-1975)
• U.S. Senator (1975-1999)

William Natcher (D, KY)
• U.S. Representative (1953-1994)

Louis Stokes (D, OH)
• U.S. Representative (1969-1999)
• Research!America Board Member (2007-2010)

**Republicans: 5**

Lowell P. Weicker, Jr. (R, CT)
• U.S. Representative (1969-1971)
• U.S. Senator (1971-1989)
• Connecticut Governor (1991-1995)

Mark Hatfield (R, OR)
• Oregon Governor (1959-1967)
• U.S. Senator (1967-1997)

C.W. Bill Young (R, FL)
• U.S. Representative (1971-2013)

John Edward Porter (R, IL)
• U.S. Representative (1980-2001)
• Chair Emeritus of Research!America

Silvio O. Conte (R, MA)
• U.S. Representative (1959-1991)
Two NIH Congressional Champions

Sen. Roy Blunt (R-MO), Chairman, Senate Labor-H Appropriations Subcommittee

Rep. Tom Cole (R-OK-04), Chairman, Labor-H Appropriations Subcommittee
Science in Real Time

• People are understandably confused by the three steps forward/two steps back *dynamic process* of science.

• By standing back or failing to engage, researchers and advocates aren’t helping resolve public confusion.

• Healthy skepticism is a good thing in science and in public discourse!
Changing Hearts and Minds for Research: AKA, Advocacy

• Building relationships
• Sharing evidence
• Making regular engagement and public outreach the new normal
To **advocate** means to speak up, to plead the case of another or to champion a general cause.

*It is something that most of us routinely do on behalf of our families, our neighbors, our friends and ourselves.*

**Lobbying**, in general, consists of communications intended to influence specific legislation.

Research!America does both.
Know Your Institution’s Policies

- It is critical to know and understand your institution’s rules and regulations regarding advocacy.
Research!America’s Mission

Making research to improve health a higher national priority

Research!America is an innovator in advocacy for research
Research!America: 28 Years of Putting Research on the Public Agenda

- Nonprofit alliance with member organizations drawn from academia, independent research institutes, industry, patient organizations and scientific societies representing more than 125 million Americans
- Distinguished, all-volunteer board includes former elected and appointed officials, media and public relations leaders, and leaders from alliance member organizations
- Four ‘sister’ organizations in Canada, Australia, New Zealand and Sweden
Research!America Board
Members (partial list)

- The Honorable Michael Castle, Partner, DLA Piper, LLP
- The Honorable John Edward Porter, Senior Advisor, Hogan Lovells US LLP
- The Honorable Kweisi Mfume, Chief Health Equity Officer, Capital Technologies Informatics System Director, Health Policy Research Consortium
- The Honorable Rush Holt, Ph.D., CEO, American Association for the Advancement of Science
- The Honorable Bart Gordon, Partner, K&L Gates LLP
- Mark McClellan, M.D., Ph.D., MPA, Director, Center for Health Policy, Duke University
- Elias Zerhouni, M.D., President, Global Research & Development, Sanofi
- Nancy Brown, CEO, American Heart Association
- Harry Johns, CEO, Alzheimer’s Association
- William Hait, M.D., Ph.D., Global Head, Janssen Research & Development
- E. Albert Reece, M.D., Ph.D., MBA, Vice President of Medical Affairs; University of Maryland School of Medicine
- Hortensia Amaro, Ph.D., Professor of Social Work and Preventive Medicine, University of Southern California School of Social Work
- Keith Yamamoto, Ph.D., Vice Dean for Research, School of Medicine, University of California, San Francisco
- James Madara, M.D., CEO, American Medical Association
- Herbert Pardes, M.D., Executive Vice Chairman, Board of Trustees, New York-Presbyterian Hospital
- Susan Dentzer, CEO, Network for Excellence in Health Innovation
A Challenge: Pass the Starbucks Test
Q: What do elected officials and scientists have in common?
Q: What do elected officials and scientists have in common?

A: Serving the public’s interest.

You can effectively start a conversation with any elected official by thanking them for serving the public’s interest. And then say how you serve the public’s interest.
115th Congress: California

Sen. Kamala Harris (D)
Committee on Homeland Security and Governmental Affairs

Sen. Dianne Feinstein (D)
Committee on Appropriations

Rep. Darrell Issa (R-49)
Oversight and Government Reform Committee

Rep. Scott Peters (D-52)
Energy and Commerce Committee
## Your Members

<table>
<thead>
<tr>
<th>Member</th>
<th>NIH Caucus?</th>
<th>NIH Sign on Letter?</th>
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<tbody>
<tr>
<td>Rep. Scott Peters</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Rep. Darrell Issa</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sen. Dianne Feinstein</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Sen. Kamala Harris</td>
<td>No</td>
<td>Yes</td>
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</table>
Make Advocacy Opportunities

Be ready with your “ask”

- Vote to Raise the Caps (now!)
- Join the NIH Caucus (evergreen)
- Sign on to NIH Appropriations and Policy Letter(s) (timing varies)
- Include NIH in your Member Appropriations Request (next budget cycle)

Take Every Opportunity to Say “Thank You”
“...public sentiment is everything. With public sentiment, nothing can fail; without it nothing can succeed.”

President Abraham Lincoln
Research!America Surveys

- Commissioning public opinion surveys on research issues for 25 years:
  - National Surveys
  - State-Based Surveys
  - Issue-Specific Surveys
- Online surveys are conducted with a sample size of 1000-2000 adults and sampling error of +/-3.1% to +/-2.1%. The data are weighted in two stages to ensure accurate representation of the U.S. adult population.
Important for U.S. to Lead in Research

How important do you think it is that the U.S. is a global leader in medical, health and scientific research?

- Very important: 65%
- Somewhat important: 26%
- Not too important: 5%
- Not at all important: 3%
- Not sure: 2%

Majority Agree that Basic Research is Necessary

Do you agree or disagree with the following statement? Even if it brings no immediate benefits, basic scientific research that advances the frontiers of knowledge is necessary and should be supported by the federal government.

Important to Conduct Research to Eliminate Health Disparities

Studies show that certain health problems such as diabetes, heart disease, and infant mortality happen more often among minorities or citizens with lower incomes. How important do you feel it is to conduct medical or health research to understand and eliminate these differences?

Government Should Prioritize STEM Education, Careers

Do you agree or disagree the federal government should assign a higher priority to improving education focused on science, technology, engineering and mathematics and careers in those fields?

## Americans Express Confidence in Military, Scientists

### Americans’ trust in military, scientists relatively high; media, business leaders, elected officials low

<table>
<thead>
<tr>
<th>Group</th>
<th>Great Deal</th>
<th>A Fair Amount</th>
<th>Not Too Much</th>
<th>No Confidence</th>
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<tbody>
<tr>
<td>The military</td>
<td>33</td>
<td>46</td>
<td>15</td>
<td>5</td>
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<tr>
<td>Medical scientists</td>
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<td>60</td>
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<tr>
<td>Scientists</td>
<td>21</td>
<td>55</td>
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<td>K-12 principals and superintendents</td>
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<td>Religious leaders</td>
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<td>The news media</td>
<td>5</td>
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<tr>
<td>Business leaders</td>
<td>4</td>
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<tr>
<td>Elected officials</td>
<td>3</td>
<td>24</td>
<td>54</td>
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</tr>
</tbody>
</table>

Note: One third of respondents randomly assigned to rate “medical scientists”; two-thirds randomly assigned to rate “scientists.” Other questions asked of all, N = 4,563. Respondents who did not give an answer are not shown. Source: Survey conducted May 10-June 6, 2016. “The Politics of Climate”

PEW RESEARCH CENTER
And Yet, Despite High Levels of Public Confidence, Scientists are Invisible in Our Society...
Can Americans Name a Living Scientist?
Most Americans Cannot Name a Living Scientist

Can you name a living scientist?

- 19% I can
  - Stephen Hawking (27%)
  - Neil deGrasse Tyson (19%)
  - Bill Nye (5%)
  - Richard Dawkins (3%)
  - Jane Goodall (2%)
  - Anthony Fauci (2%)
  - Michio Kaku (2%)
  - Me (2%)
  - James Watson (1%)

- 81% I cannot

Do Americans Know Where Medical or Health Research is Conducted?
Most Americans Don’t Know Where Research is Conducted

Can you name any institution, company or organization where medical or health research is conducted?


- Mayo Clinic (17%)
- Johns Hopkins University (10%)
- St. Jude Children’s Research Hospital (6%)
- NIH (4%)
- Cleveland Clinic (4%)
- MD Anderson Cancer Center (2%)
- Harvard University (3%)
- American Cancer Society (2%)
- CDC (1%)
Most Americans Don’t Know Research is Conducted Nationwide

To the best of your knowledge, would you say that medical research in the U.S. is conducted in all 50 states?

Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics in January 2016.
Increase the Visibility of Science
Community Engagement

La Jolla Institute’s “Life Without Disease” Seminar Series

• Community lecture series provides San Diegans with an opportunity to hear about the latest advances in immune research and learn first-hand about the exciting research conducted at the Institute

• Seminars are delivered by leading figures in immunology and are offered at no charge to the public several times each year
What else can you do?

• Get to know small business people in your community e.g. vendors to your lab; they want you to succeed
• Invite a journalist to talk about how science news is covered by media
• Make time for public engagement
• Host a local Science on Tap/Nerd Night
• Recognize and reward best practices in public engagement

You cannot outsource advocacy!
Model Advocacy Program

*University of Maryland School of Medicine, Department of Biochemistry and Molecular Biology; Richard Eckert, Chairman*

- Science Advocacy Committee managed by faculty member, staffed by admin assistant; each spend 72 hrs/yr
- Twice per year 4-6 person teams visit each of Maryland’s Reps and Senators, at either home office or Washington, DC
- All team members are trained on current themes of advocacy
- Records kept, follow up letters sent, regular communication between meetings
- Participation is not tied to tenure/promotion, but **it is expected of all faculty and students**
- Regular communication with UMD government affairs office and with the Dean
Tell Your Story, Not Your Data!

"I'll pause for a moment so you can let this information sink in."
Engage Emotion: You Can’t Use Facts To Change Feelings

- Research has shown that facts and rational analysis do not convince people to change behavior.

- The gatekeeper for our decisions is not our rational self but our emotional self.

- If you want to change the narrative around a cause, you have to start by changing the way people feel.

“When we think of ourselves, we identify with System 2, the conscious reasoning self that has beliefs, makes choices, and decides what to think about and what to do. Although System 2 believes itself to be where the action is, the automatic System 1 is the hero...System 1 [is about the] effortlessly originating impressions and feelings that are the main sources of the explicit beliefs and deliberate choices of System 2.”

- Daniel Kahneman, Thinking Fast and Slow
“I admire and love my brother [Paul Greengard], but he lives on a higher plane, and what he does is secret, unrevealable. To me, anyway ...

“Every time he took a new job — whether at Albert Einstein College of Medicine or Yale — I’d ask him about it. Then he’d get into electro-physiological properties, and it was all over ...

“Now, he has won the Nobel Prize in physiology or medicine, an honor he shares with two other scientists. In reporting it, the newspapers said their work on the way brain cells communicate might one day help cure diseases like Parkinson’s and Alzheimer’s.

“I’m thrilled he won. Now I know what he does.”

— Chris Chase in a New York Times opinion piece on October 15, 2000
THEN... 130,000 new cases of HIV infection occurred annually in the U.S. during the peak of the AIDS epidemic in the 1980s, and most cases were fatal.

NOW... (thanks to research) The development of Highly Active Antiretroviral Therapy (HAART), revolutionized the battle against HIV/AIDS and transformed the virus from a death sentence to a manageable chronic condition.

IMAGINE... (thanks to research) A universal HIV vaccine and complete eradication of HIV/AIDS, worldwide.

Research is the solution to what ails us!
Americans spent more than $60 billion on Apple products in 2016.

That amount could fund research at the National Institute for Allergy and Infectious Disease for up to 12 years!

Sources: Statista, NIH
In 2016, the US spent an estimated $2.9 billion on food for Thanksgiving dinner.

That amount could fund asthma research at the National Institute of Health for up to 11 years!

Sources: Statistic Brain, NIH
A Nation Worth Defending

• U.S. defense spending in 2017 totaled $587 billion.

• Health Security: The National Institutes of Health budget in 2017 totaled $34.1 billion.

“The NIH... is our nation's Department of Defense for America's personal health”*

Sources: DoD, NIH, Congressman Steve Cohen* (D-TN)
Re-Cap: How to Think About Talking to Non-Scientists

- Know your audience
- Use the Then-Now-Imagine message frame
- Be in the moment
- Understand and align with public sentiment
- Remember -- if people are skeptical, they are thinking like scientists!
- Convey your personal commitment/passion

Communicating well demonstrates understanding, sensitivity and accountability.
Put a Face on Research: YOURS!
The most important four words a researcher can say and convey are ...
“I work for you.”
Research!America Works for You

Connect with us

www.researchamerica.org/blog
www.facebook.com/researchamerica.org
www.twitter.com/researchamerica
www.youtube.com/researchamerica