Advocacy & Action: Stepping Up to Strengthen Career Opportunities in Science

Mary Woolley, President, Research!America
WARNING: Failure to be an advocate can be hazardous to your research career.
What Do You Think?

How important is it that the president and the new Congress take action on expanding medical research in the first 100 days of the 113th Congress?
Congress, Administration Should Take Action on Expanding Research

How important is it that the president and the new Congress take action on expanding medical research in the first 100 days of the 113th Congress?

- Very important: 32%
- Somewhat important: 21%
- Somewhat unimportant: 5%
- Very unimportant: 2%
- Not sure: 40%

Source: A Research!America poll of U.S. adults conducted in partnership with JZ Analytics in December 2012.
“Every dollar we invested to map the human genome returned $140 to our economy. Today, our scientists are mapping the human brain to unlock the answers to Alzheimer’s; developing drugs to regenerate damaged organs; devising new material to make batteries ten times more powerful. Now is not the time to gut these job-creating investments in science and innovation.”

President Barack Obama
State of the Union Address, February 12, 2013
Now What?

- Will the president’s budget ramp up funding for science to the “space race” level he talked about?
- Will Congress act to defer or eliminate the arbitrary, across-the-board cuts known as sequestration?
Congressional Games

Sources: heck-yeah-old-tech.tumblr.com
What is Our Message to Congress Now?

• We want sequestration to be eliminated altogether; if that isn’t possible, we want implementation delayed beyond March 1

• We want the continuing resolution to be extended to the end of the fiscal year on September 30, 2013

• We want research to be a priority:
  • In the FY14 budget
  • In the congressional appropriations process
  • In any “grand bargain”
How Do We Make the Case? (i.e., messaging)

Medical research impacts:

- Jobs
- The economy
- Careers of young scientists
- American competitiveness
- Your health, and everyone else’s

*Be in the moment*: Right now, the moment is all about sequestration
# The Landscape for Research Under Sequestration

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>[-] 9% SEQUESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Institutes of Health</td>
<td>$2,760,000,000</td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention</td>
<td>$509,000,000</td>
</tr>
<tr>
<td>Food and Drug Administration</td>
<td>$345,000,000</td>
</tr>
<tr>
<td>National Science Foundation</td>
<td>$633,000,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$4,247,000,000</strong></td>
</tr>
</tbody>
</table>

These estimates are based on FY12 funding levels.
“These sudden, harsh, arbitrary cuts would jeopardize our military readiness. They’d devastate priorities like education and energy and medical research. They would certainly slow our recovery, and cost us hundreds of thousands of jobs. That’s why Democrats, Republicans, business leaders, and economists have already said that these cuts, known here in Washington as the sequester, are a really bad idea.”

President Barack Obama
State of the Union Address, February 12, 2013
Young Scientists At Risk

- In 1982, scientists under age 36 comprised 18% of all NIH primary investigators
- By 2011, scientists under age 36 comprised 3% of all NIH primary investigators

Source: Society for Neuroscience
“U.S. R&D expenditures accounted for about 31% of the worldwide total, down from 38% a decade earlier. The combined R&D expenditures of 10 Asian economies [including China and Japan] rose steadily to reach U.S. levels in 2009, driven mostly by China, now the second largest R&D performing nation.”

Source: National Science Board, Science and Engineering Indicators 2012
Also Consider ...

- The Beijing Genomics Institute has more capacity to sequence human genomes than all U.S. genome centers combined.
- The U.S. ranks sixth in R&D spending as a percentage of GDP.
- The FY11 budget funded only one in six NIH grant applications, the lowest rate on record.
- The funding and policy outlook is grim.

RESEARCH AMERICA
AN ALLIANCE FOR DISCOVERIES IN HEALTH

a 10% payline isn’t funding it’s a lottery
“Scientists are obliged to make the case for science to lawmakers. … If I had to do it all over again I would spend more time talking to general audiences and public officials, penning op-eds.”

J. Michael Bishop, MD, Nobel laureate; Research!America Advocacy Awards, March 15, 2011
Research!America’s Mission

Make research for health a higher national priority
Research!America: 24 Years of Putting Research on the Public Agenda

- Nonprofit alliance with member organizations drawn from academia, business, 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
Research!America Goals:

• Achieve more funding for medical and health research
• Advocate a policy climate that stimulates rather than impedes research
• Ensure that the public hears about research and its benefits
• Empower others to advocate for medical and health research

• URGENT 2013 GOAL: STOP SEQUESTRATION; PROTECT RESEARCH
“...public sentiment is everything. With public sentiment, nothing can fail; without it nothing can succeed.”

Abraham Lincoln
Keeping a Finger on the Pulse of Public Opinion

www.researchamerica.org/poll_summary
Cost of Health Care is Most Critical Health Issue in America

What would you say is the single most important health issue facing the nation?

<table>
<thead>
<tr>
<th>Health Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of health care</td>
<td>61%</td>
</tr>
<tr>
<td>Obesity</td>
<td>18%</td>
</tr>
<tr>
<td>Cancer</td>
<td>6%</td>
</tr>
<tr>
<td>Mental health</td>
<td>3%</td>
</tr>
<tr>
<td>Heart disease</td>
<td>2%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
</tr>
<tr>
<td>Not sure</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: A Research!America poll of likely voters conducted in partnership with JZ Analytics in August 2012.
Over Half Skeptical that U.S. Will Be a Leader in Health Care

In your view, which of the following will be considered the No. 1 world leader in health care in the year 2020?

- United States: 47%
- China: 28%
- India: 18%
- European Union: 2%
- Brazil: 2%
- Not sure: 3%

Source: A Research!America poll of likely voters conducted in partnership with JZ Analytics in March 2012.
Research is Part of the Solution to Rising Health Care Costs

When it comes to rising health care costs, would you say research to improve health is part of the problem or part of the solution?

Source: National Public Opinion Poll, October 2011, JZ Analytics for Research!America
Most 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.”

- 32% Strongly agree
- 42% Somewhat agree
- 11% Somewhat disagree
- 6% Strongly disagree
- 10% Not sure

Source: A Research!America poll of U.S. adults conducted in partnership with JZ Analytics in December 2012.
Over Half Doubt U.S. Leadership in Science and Technology in 2020

In your view, which of the following will be considered the number one world leader in science and technology in the year 2020?

- United States: 41%
- China: 25%
- India: 5%
- European Union: 5%
- Brazil: 1%
- Not sure: 23%

Source: A Research!America poll of likely voters conducted in partnership with JZ Analytics, with support from United for Medical Research, in September 2012.
Research is Important to State Economies

How important do you think research and development is to your state’s economy?

- **Very important**: 40%
- **Somewhat important**: 42%
- **Not too important**: 1%
- **Not at all important**: 9%
- **Not sure**: 9%

Source: A Research!America poll of U.S. adults conducted in partnership with JZ Analytics in December 2012.
Do you believe the federal government should increase support for programs and policies that would increase the number of young Americans who pursue careers in science, technology, engineering and mathematics? 

- Yes: 70%
- No: 17%
- Not sure: 13%

Source: A Research!America poll of U.S. adults conducted in partnership with JZ Analytics in December 2012.
More than Half of Americans Willing to Pay Tax for Research

Would you be willing to pay $1 per week more in taxes if you were certain that all of the money would be spent on additional medical research?

54% Yes
28% No
19% Not sure

Source: A Research!America poll of U.S. adults conducted in partnership with JZ Analytics in December 2012.
How can you get involved?

Change the trajectory for research funding in the coming weeks and months by joining the Save Research 2.0 campaign. Use messages like the following:
Research Creates Good Jobs

- In 2011, the National Institutes of Health created and sustained 432,000 jobs.
- The average wage in the U.S. is $45,230.
- The average wage for a life science worker in the U.S. is $65,470.

Research Drives the Economy

- In 2011, NIH spending produced more than $62 billion in economic activity.
- With the help of NIH-funded research, the economic value of gains in U.S. average life expectancy has been estimated to be roughly $95 trillion from 1970 to 2000.

Source: “NIH’s Role in Sustaining the U.S. Economy,” United for Medical Research; American Heart Association.
How Research Saves Money

- CDC research shows that, if adopted, new emergency TBI guidelines could save $288 million in medical and rehabilitation expenses and $3.8 billion in indirect costs annually.

- Reducing the new diagnosis rate of Parkinson’s disease by 1% could save an average of $250 million per year in treatment, Social Security payments and lost productivity.

Sources: Research!America fact sheet series, “Investment in Research Saves Lives and Money”
Less Than 5% of Total Spending on Health is Spent on Research

Research Can Help Contain the Daunting Cost of Health Care

NIH Research Funding and Annual Cost of Care for Major Diseases in the U.S.

Source: “Sequestration: Health Research at the Breaking Point,” Research!America
Save Research Campaign

WARNING: Washington politics just might kill you

Americans are dying to know: Will Congress abandon medical research?

Congress will make budget decisions soon. They can decide to advance medical innovation or jeopardize efforts to find cures for cancer, heart disease, Alzheimer’s, Parkinson’s, diabetes, lupus and other threats to our health.

Tell Congress we need CURES, NOT CUTS. Learn more at SaveResearch.org
Let’s talk about Texas.

Flickr photos by RedTail_Panther; Woody H1; and TexasEagle
Research Drives the Economy:
Texas Examples
Relatable Communications, AKA Social Math

- In 2012, Allen High School in Allen, TX, opened a new football stadium that cost nearly **$60 million** to build.

- That amount is nearly **29 times larger** than NIH grant funding to Texas researchers in 2012 for studying traumatic brain injury!

Sources: ESPN; NIH FY12; photos by Associated Press (top) and NIMH
Relatable Communications, AKA Social Math

- Visitors to the 2012 Texas State Fair spent **$36.6 million** on food and amusement rides.

- That amount is more than the NIH was expected to spend on food allergy research in 2012!

Sources: State Fair of Texas; NIH
Flickr photos by ladybugbkt
Relatable Communications, AKA Social Math

- In 2012, the 43 fellows supported by NIH at Gulf Coast Consortia schools cost a total of $1.66 million.
- An economic impact study found the Houston Livestock Show and Rodeo adds $27 million to local governments’ coffers each year. That amount would fund 698 fellows.

Sources: HSLR, NIH; Flickr photo by nikonlarry
# Research in Texas

<table>
<thead>
<tr>
<th>Source</th>
<th>Funding (in thousands)</th>
<th>State Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIH</td>
<td>$1,066,750</td>
<td>6</td>
</tr>
<tr>
<td>CDC</td>
<td>$523,439</td>
<td>2</td>
</tr>
<tr>
<td>NSF</td>
<td>$267,824</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,863,420</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td><strong>25,145,561</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

Nearly 26,000 jobs in Texas are supported by funding from the National Institutes of Health alone.

Sources: Research!America; United for Medical Research
Key Congressional Decision Makers, 113th Congress

Rep. Hal Rogers (R-KY)
Chair, House Appropriations Committee

Rep. Jack Kingston (R-GA)
Chair, House LHHS Appropriations Subcommittee

Sen. Barbara Mikulski (D-MD)
Chair, Senate Appropriations Committee

Sen. Tom Harkin (D-IA)
Chair, LHHS, Appropriations Subcommittee
Congressional Leadership, 113th Congress

**House**

- Rep. John Boehner (R-OH) Speaker
- Rep. Eric Cantor (R-VA) Majority Leader
- Rep. Nancy Pelosi (D-CA) Minority Leader
- Rep. Steny Hoyer (D-MD) Minority Whip

**Senate**

- Sen. Harry Reid (D-NV) Majority Leader
- Sen. Dick Durbin (D-IL) Majority Whip
- Sen. Mitch McConnell (R-KY) Minority Leader
- Sen. John Cornyn (R-TX) Minority Whip
Texas Delegation Overview

- **Sen. John Cornyn (R):** Senate Minority Whip
- **Sen. Ted Cruz (R):** Senate Commerce, Science and Transportation Committee
- **House Appropriations Committee:** Rep. John Carter (R-31st); Rep. John Culberson (R-7th); Rep. Kay Granger (R-12th)
- Every Member of Congress votes on research issues at some point.
A Challenge: Pass the Starbucks Test
Why Aren’t More Scientists Engaged in Public Outreach?

- Don’t have time
- Aren’t being asked
- Don’t know how
- “Involvement makes no difference”
- Apathy/don’t want to
- Lack of incentives
- “Non-scientists won’t understand”
- Liability/fear of being misinterpreted
- Happy with the job others are doing (not so much)
Research is Invisible
Can Americans Name a Scientist?
Most Americans Can’t Name a Living Scientist

Can you name a living scientist? (first volunteered responses)

- Yes: 34%
  - Stephen Hawking: 15%
  - James Watson: 1%
  - Jane Goodall: 1%
  - Bill Nye: 1%
  - Michio Kaku: 1%
  - Neil Degrasse Tyson: 1%
  - Other: 14%

- No: 66%

Source: Your Congress - Your Health Survey, March 2011
Charlton Research Company for Research!America
Do Americans Know Where Research is Conducted?
Most Americans Don’t Know Where Research is Conducted

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

- I can
- I cannot

- Mayo Clinic 10%
- CDC 9%
- NIH 7%
- Johns Hopkins 6%
- St. Jude 4%
- Pfizer 3%
- American Cancer Society 3%
- Merck 2%
- Duke Univ./Med. Ctr. 1%
- OR Heath & Sci. Univ. 1%
- UCSF 1%
- Other 52%

Source: Your Candidates-Your Health Public Opinion Poll, October 2011, JZ Analytics for Research!America
Few Americans Recognize the National Institutes of Health

What is the name of the government agency that funds most of the medical research paid for by taxpayers in this country? (first volunteered responses)

Source: Research Enterprise Poll, February 2010
Charlton Research Company for Research!America
“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
It’s time for scientists to become visible instead of invisible.
Advocacy in Action: Kerri Mowen, PhD

- Assistant professor, Dept. of Chemical Physiology, The Scripps Research Institute, La Jolla, CA
- Worried about cuts in NIH funding, she created an online petition; 4,000 people signed on
- That led to a front-page story in the San Diego Union-Tribune, a segment on CBS News and in The Financial Times
Advocacy in Action:
George Romar

“Scientific research can make our country safer, our quality of life higher, and our economy stronger. We cannot afford to turn back the clock on progress. Let’s call upon President Obama and Members of Congress to intervene before things get out of hand. Ask them to leave the doomsday action in Hollywood where it belongs. The country’s future depends on it.”

— George Romar, Rice University, in a December 17, 2012, story on the Houston Chronicle website
What You Can Do Now:

• Call top congressional leaders and the president; organize colleagues and friends to do the same
• Call your Member of Congress and urge others to follow suit
• Go to our website to subscribe to action alerts
• Align with patient groups and industry
• Write a letter to the editor or op-ed
• Use social media to stimulate more advocacy
• Send a tweet:
  • New football stadium at Allen HS cost more than research grants for traumatic brain injury to #Texas researchers from @NIHforHealth in 2012.
  • Food/amusement concessions at 2012 @StateFairOfTX were more than @NIHforHealth research funding on #foodallergies in 2012.
  • @rodeohouston’s $27M in tax revenue each year is enough for 698 NIH-supported fellows at Houston-area research universities.
“You can’t abdicate or transfer to advocates your individual responsibilities as scientists and citizens of this great country ... You as an individual, scientist and citizen – your voice, your effort, your participation – are essential and vitally needed to influence positively the public policies affecting science.”

Research!America Chair, Former Congressman John Edward Porter
Step up to advocacy!

It’s your job, not someone else’s.
Connect with Research!America Online

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