A Career in Science Policy at a Time of Change and Opportunity

Mary Woolley, President, Research!America
“I believe the economic destiny of America lies in science, technology, innovation and research.”

Research!America Chair and Former Congressman John Edward Porter, October 13, 2009
To our valued customers:

We are sad to say we are permanently closing our doors at Mistral on December 20th. We have enjoyed our time here at the Ferry Bldg. and have valued your support. You can still in touch with us at

Flickr photos by (left to right) cbcastro, unknown, Kevglobal and rponsaj

Rasmussen: Ratings for Congress Remain at Record Lows (Aug. 30, 2011)

RESEARCH AMERICA
AN ALLIANCE FOR DISCOVERIES IN HEALTH
One Way Science Gets in the News: HPV Politics
Unsettled Climate for Science and Advocacy

- Overriding concern re: job creation, economic growth and competitiveness
- Will the supercommittee succeed?
- Election politics
- Health care issues are still front burner, especially cost issues
- Influence of the Tea Party
- Scientists are not speaking out
Research!America’s Mission

Making research to improve health a higher national priority

Research!America is an innovator in advocacy for research
Research!America: 22 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
Our Key Objectives

• Increase investment in domestic health-related R&D
• Increase investment in global health-related R&D
• Ensure that R&D investments reach patients by improving the policy environment
• Promote science overall and counter attacks made on science
Select Research!America

Accomplishments:

• Leadership in doubling the National Institutes of Health budget (1999-2003)
• Leadership in advocacy for 2009 ARRA (stimulus) funding for federal research agencies
• Ongoing leadership in:
  • public opinion polling on medical and health research
  • message development for research advocacy
  • media attention to research
  • internationally to spur advocacy for research
Research!America’s Intern and Fellow Program

• Research!America accepts applications throughout the year for interns
• Funding provided by the Burroughs Wellcome Fund and the Gates Foundation
• For more information, visit www.researchamerica.org/careers
Research!America’s Intern and Fellow Alumnae’s Next Jobs:

- American Association for the Advancement of Science (AAAS)
- American Chemical Society
- Booz Allen Hamilton
- Capitol Hill
- Environmental Protection Agency
- Peace Corps
- University of Texas
- U.S. Agency for International Development
Mark Stevens, PhD, Fellow

- BS, Biochemistry, SUNY-Geneseo
- PhD, Pharmacology and Toxicology, University of Arizona
- Doctoral research studies: cardiac development
- Postdoctoral fellow at NHLBI
- Research!America special project: state-centered fact sheets
Max Bronstein, Research!America
Manager of Science Policy

- BS, Biology, Ithaca College
- MPP, University of Michigan
- Congressional intern, House Committee on Science and Technology
- Multiple positions, National Science Foundation
- Founder and editor-in-chief, The Journal of Science Policy & Governance
It’s not just about you and your future in science or in public policy; it’s about what you can do today.
WARNING: Failure to be an advocate can be hazardous to your research career
“The people we really listen to are the voters. Not once have I heard anyone at a public meeting ask me, ‘what are you doing for medical research?’ Not even from a researcher!”

Rep. Mike Simpson (R-ID), Appropriations Committee Member
Like elected representatives, scientists serve the public’s interest. That’s why the most important four words a researcher can say and convey are ...
“I work for you.”
“...public sentiment is everything. With public sentiment, nothing can fail; without it nothing can succeed.”

President Abraham Lincoln
Research!America Poll Data

- Commissioning public opinion polls on research issues for nearly 20 years:
  - National Polls
  - State-Based Polls
  - Issue-Specific Polls
- Telephone (random-digit dialing) polls are conducted with a sample size of 800-1000 adults (age 18+) and a maximum theoretical sampling error of +/- 3.5%. Data are demographically representative of adult U.S. residents (state or national).
- Online polls are conducted with a sample size of 1000-2000 adults and sampling error of +/-3.1%. The data are weighted in two stages to ensure accurate representation of the U.S. adult population.
U.S. Competitive Edge in Innovation

Do you agree or disagree with the following statement? "The U.S. is in danger of losing its global competitive edge in science, technology and innovation."

Source: Your Congress - Your Health Survey, March 2011
Charlton Research Company for Research!America
STEM Education Very Important to U.S. Competitiveness

How important do you think education and training in science, technology, engineering and mathematics is to U.S. competitiveness and our future economic prosperity?

- Very important: 74%
- Somewhat important: 24%
- Not too important: 2%

Source: Your Congress - Your Health Survey, March 2011
Charlton Research Company 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.”

Source: Your Congress - Your Health Survey, March 2011
Charlton Research Company for Research!America
Most Americans Favor Expanding Funding for ESC Research

Do you favor or oppose expanding federal funding for research using embryonic stem cells?

- **Strongly favor**: 36%
- **Somewhat favor**: 17%
- **Somewhat oppose**: 11%
- **Strongly oppose**: 36%

Source: *Your Congress - Your Health* Survey, March 2011
Charlton Research Company for Research!America
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?

- 66% Part of the solution
- 34% Part of the problem

11% decrease in “part of the solution” since August 2010

Source: Your Congress - Your Health Survey, March 2011
Charlton Research Company for Research!America
Messages That Reach Policy Makers

Investment in research saves lives and money

Heart Disease & Stroke

Today:
1. Heart disease is the leading cause of death in the United States and is the leading cause of death worldwide.
2. About 80% of deaths from heart disease are preventable through lifestyle changes and early intervention.

The Cost:
- The direct medical costs of heart disease are estimated to be $316 billion annually in the United States.
- The indirect costs, such as lost productivity, are estimated to be even higher.

Investment in research saves lives and money

Alzheimer’s Disease

Today:
1. Alzheimer’s disease is the most common cause of dementia and affects millions of people worldwide.
2. Early detection and intervention can greatly improve outcomes and quality of life.

The Cost:
- The direct medical costs of Alzheimer’s disease are estimated to be $255 billion annually in the United States.
- The indirect costs, such as lost productivity, are estimated to be even higher.

HIV/AIDS

Today:
1. HIV/AIDS is a global epidemic that affects millions of people worldwide.
2. Early detection and intervention can greatly improve outcomes and quality of life.

The Cost:
- The direct medical costs of HIV/AIDS are estimated to be $160 billion annually in the United States.
- The indirect costs, such as lost productivity, are estimated to be even higher.

RESEARCH AMERICA
AN ALLIANCE FOR DISCOVERIES IN HEALTH
Economic Impact Messages

- Research drives innovation and productivity
- Research creates jobs
- Research fuels local & regional economies
- Research helps control health care costs
- Research can contribute to growth and savings in all types of businesses
- Research is an investment, not a cost
Messages That Reach Policy Makers

Investment in research saves lives and money

Saves Lives. Reduces in mortality rates

Why invest?
- Our nation’s most valuable asset is human capital.
- Healthier Americans are vital to mutual economic growth, greater productivity and global competitiveness.
- Research produces high-impact, high-wage jobs for America.
- The U.S. must invest now to support the next generation of breakthroughs.
- Innovation is the key to global competitiveness, new and better jobs, a medtech economy and the attainment of essential national goals.
- Chronic diseases such as heart disease, cancer, diabetes and asthma cost the U.S. $7 trillion each year.
- Personalized medicine offers the prospect of reducing costs and improving patient outcomes by using diagnostic tools to match patients to interventions and preserve health.

Hope for the Future:
Our ability to lead in 2025 will be a function of current decisions. Investing in research today is a sound and responsible national security policy. No other federal expenditure will do more to create jobs, grow wealth, strengthen our world leadership, protect our environment, promote better education or ensure better health for the country. We must make the commitment to increase our investment now.

"Science is more essential for our prosperity, our security, our health, our environment, and our quality of life than it has ever been before."

President Barack Obama

"Innovation is the source of U.S. economic leadership and the foundation for our competitiveness in the global economy."

Bill Gates, Chair, Microsoft Corporation
Messages That Reach Policy Makers

Research & Innovation: Montana

Montana Health Facts
- Alzheimer’s disease affects 21,000 Montana residents.
- Cancer was the leading cause of death between 2007 and 2009, killing more than 3,500 Montanans.
- Heart disease was the second leading cause of death in Montana, accounting for 3,000 deaths from 2007 to 2009.
- Montana’s health challenges include an increasing number of cases of obesity, diabetes and breast cancer.

Research & Innovation: Ohio

Ohio Health Facts
- Cancer kills about 33,000 Ohioans per year.
- Heart disease killed about 33,000 Ohioans in 2009.
- Diabetes affects about 300,000 Ohioans.

Research & Innovation: Central Virginia

Virginia Health Facts
- Cancer was the third leading cause of death in Virginia in 2007.
- Stroke was the third leading cause of death in Virginia in 2007.
- Diabetes was the leading cause of death among children under 18 in 2007.

Virginia Commonwealth University (VCU) benefits from National Institutes of Health (NIH) funding
- Researchers developed a more effective chemotherapy for removing cancerous tumors.
- VCU discovered a combination treatment for quinine, which kills about 500,000 people per year.

Research & Innovation: Richmond VA Medical Center
- Conducts patient studies to develop drugs for cancer, diabetes and heart disease.
- Research enhances the medical center’s ability to treat veterans.

Maguire Research Institute – Richmond VA Medical Center
- VCU develops a new treatment for cancer.
- VCU develops treatments for Parkinson’s disease.

Virginia grants lead to discoveries at the University of Virginia (UVa)
- Novel cancer diagnostics technology for personalization of treatment programs.
- Studies of genetic makeup in conditions such as stroke and heart disease as early as infancy.

Biotechnology companies in the Charlottesville area
- UVa startup, Genzyme, is developing a new drug to treat a rare genetic disease.
- Kionyx, a UVa startup, is developing a new drug to treat a rare genetic disease.

Biotechnology companies in Richmond
- University of Virginia Biotechnology Park.
- VCU Institute for Biotechnology and Development.

Research America
An Alliance for Discoveries in Health
Social Math: Research Takes Cents

- U.S. amusement parks and attractions generate $12 billion in revenue each year.

- That sum would fund the National Science Foundation for nearly 2 years!

Sources: International Association of Amusement Parks and Attractions; NSF FY 2011
Social Math: Research Takes Cents

- Americans spend more than $2.7 billion on collegiate sports merchandise each year.

- That amount would fund the National Center for Research Resources for more than two years!

Sources: Collegiate Licensing Company; NIH FY2010
Public Perceptions of Science and Scientists

Science’s impact on society is:
- Mostly positive: 84%
- Mostly negative: 6%
- Other/don’t know: 10%

Professions contributing “a lot to society’s well-being”:
- Members of military: 84%
- Teachers: 77%
- Scientists: 70%
- Medical doctors: 69%

Pew Research Center for the People & the Press, July 2009
And Yet, Despite High Levels of Public Confidence, Scientists are Invisible in Our Society...
How Many Americans Can Name a Living Scientist?

Can you name a living scientist? (first volunteered responses)
Most Americans Can’t Name a Living Scientist

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

Source: Your Congress - Your Health Survey, March 2011
Charlton Research Company for Research!America
Do Americans Know Where Medical Research is Conducted?

Do you know of any institutions, companies or organizations where medical or health research is conducted?
Americans Don’t Know Where Research is Conducted

Do you know of any institutions, companies or organizations where medical or health research is conducted?

- Don't Know: 64%
- Johns Hopkins University: 1%
- St. Jude: 1%
- Pfizer: 1%
- National Institutes of Health: 1%
- Cleveland Clinic: 1%
- University of Michigan: 1%
- Children's Hospital: 1%
- Merck: 1%
- Other: 28%

Source: Your Congress-Your Health Survey, May 2007
Charlton Research Company 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)

- National Institutes of Health: 50%
- FDA: 19%
- DHHS/Health Dept.: 13%
- Centers for Disease Control: 6%
- Other: 3%
- Don't know: 9%

Source: Research Enterprise Poll, February 2010
Charlton Research Company for Research!America
Most Do Not Recognize NSF

What is the name of the government agency that funds most of the basic research and educational programming in the sciences, mathematics and engineering in this country?

- 84% Don't know
- 5% Dept. of Education
- 9% National Science Foundation
- 2% Other

Source: Your Congress-Your Health Survey, 2007
Charlton Research Company for Research!America
Many Not Well Informed on Elected Officials’ Positions on Research

How well informed would you say you are about the positions of your Senators and Representative when it comes to their support of medical, health and scientific research?

- Very well informed: 11%
- Somewhat well informed: 41%
- Not too well informed: 37%
- Not informed at all: 11%

Source: *Your Congress - Your Health* Survey, March 2011
Charlton Research Company for Research!America
A Challenge: Pass the Starbucks Test
Why Aren’t More Scientists Engaged in Public Outreach?
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
“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
What Can You Do Right Now?

- Emphasize how research drives economic activity in every state and creates good jobs
- Volunteer as an adviser to your Member of Congress and/or a candidate
- Encourage your colleagues in advocacy
- Get involved in Research!America’s Your Candidates-Your Health initiative
Your Candidates-Your Health for the 2012 Elections

- Outreach to candidates
  Candidates for federal office will be invited to participate by providing responses to a questionnaire about health, research and related issues

- Extensive public outreach through the Research!America advocacy network and sponsoring partners to encourage candidates for federal office to share their views

www.yourcandidatesyourhealth.org

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