

# Communicating Your Science to the Non-Expert

An Online Workshop



#### Welcome to Communicating Your Science to the Non-Expert: An Online Workshop



Thank you for joining the webinar. We will begin shortly.

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# Communicating Your Science to the Non-Expert

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#### **Moderator**

- Scott Thompson, PhD
- Professor and Chair, Department of Physiology
- University of Maryland School of Medicine
- Research focus is the biological basis of depression.
- Chair of the SfN Public Education and Communication Committee
- Hill Day 2014 participant





#### **Speakers**



Suzanne Ffolkes Vice President of Communications Research!America

Leslie Tolbert Professor of Neuroscience, Cellular & Molecular Medicine University of Arizona



#### **Logistical Information**

- Interactive workshop—don't be shy!
- Respond to prompts through the "Questions" pane on the Control Panel:





#### **Outline of this Workshop**

- Why Communicate?
  - Scott Thompson
- Crafting Your Story
  - Suzanne Ffolkes
- Putting It All Together
  - Leslie Tolbert
  - Scott Thompson
- Thank You
  - Anne Young
- Q&A





# Why Communicate?

Scott Thompson





# **Communicating Your Science**



#### Why Communicate Your Science?





#### Why Should Scientists Communicate with the Public?

What's good for the public	is good for science.
Promote understanding	Practice our communication skills
Seed a generation of future scientists	Forces scientists to consider the big picture
Inspire critical thinking	Lets scientists weigh in on public issues
Stem the flow of bad information	Supports science funding
<ul> <li>Show taxpayers their money goes to support great science</li> </ul>	<ul> <li>Increases respect for the field</li> </ul>
<ul> <li>Share the beauty of science</li> </ul>	Renews our excitement



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# **Crafting Your Story**

Suzanne Ffolkes





#### **Most Americans Can't Name a Living Scientist**



Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics, with support from the American Society of Hematology, in November 2013



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#### **Most Trusted Spokespersons for Science?**

How trustworthy do you consider each of the following to be as spokespersons for science?



Source: A Research!America poll of U.S. adults conducted in partnership <sup>13</sup> with Zogby Analytics in January 2014



### Poll

Have you spoken to the public about your research in a formal or semi-formal setting in the past six months?

- Yes
- No



## What is an "elevator speech?"

 A concise oral introduction to your research or experience for informal use in various professional contexts



- Goals:
  - 1. To create a memorable and positive impression
  - 2. To invite further conversation or elaboration



#### When do you use an elevator speech?

- A well-crafted elevator speech is versatile and easily customizable
- It is useful in almost all areas of life—from public to private





## **Example Speech**

- Hello. I'm Jane Smith, a graduate student from University of Anytown, USA.
- You may not realize it, but there is more than one kind of memory – think about the difference between remembering a fact versus an event. I study different kinds of memory in very mild Alzheimer's disease. We have found that one type of memory, which is not normally assessed in clinical tests, is affected early in Alzheimer's.
- We hope that introducing a test of this kind of memory into the clinic could lead to earlier detection and thus earlier, more effective treatment of Alzheimer's.



#### **The Speech: Your Story**

Who you are, what you do, and why your listener should care

- 1. Introduction
- 2. Research Problem
- 3. "So What?"





#### **1. The Introduction**

- One sentence: Your name, position, and institution
- Straightforward, with areas to elaborate





#### 2. Research Problem

- A very basic research summary
- What is the problem?
- What are potential solutions or interesting questions raised by your research?
- How does it benefit human health and/or the community?





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#### **3. Relevance to Your Audience**

- Potential impact of your research
- Why does your research matter?





#### **Take Home Message**

- Think about what you'd like your audience to remember after your conversation.
- This will be different, depending on the audience.





### **Putting It All Together**

- 1. Introduction
- 2. Research Problem
- 3. "So What?"





#### **Things to Remember**

- Tips:
  - Avoid jargon
  - Start broad
- Tailor to your audience
  - Complexity should be tailored to your audience
    - · It's ok to check in on their background
    - Don't assume knowledge or ignorance
  - BrainFacts.org is a good resource
  - ResearchAmerica.org has resources for scientists





## **Online Communication**

- Communicating online is a great way to reach a broader audience.
- Your elevator speech is a great place to start





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#### **Tell Your Story, Not Your Data!**



"Tll pause for a moment so you can let this information sink in."

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# **Putting It All Together**

Leslie Tolbert





# **Scientific Description**

- I study how sensory neurons guide the development of brain circuitry.
- Using insects as our model organisms, my group has discovered several novel – and essential – roles for glial cells in development. Through a variety of molecular signals, glial cells help sensory axons to find their correct targets and then they form the scaffolding within which neurons form synaptic circuits.
- Our expanding view of the roles of glial cells sheds light on development in less accessible mammalian systems, and in the long run should open new avenues for development of interventions when brain development – or recovery from injury – goes awry.







## **Elevator Speech**

- I'm Leslie Tolbert, a professor of neuroscience at the University of Arizona.
- Most people who study how complicated brain circuits develop focus on the nerve cells – but, in my lab, we have found that the support cells of the brain play many surprising roles.
- We hope our research will open up new avenues for effective treatment when circuit development goes awry, as in autism.





## How I Developed My Speech

- There are 3 major points I can use to generate interest in non-scientists:
  - 1. The experimental question
  - 2. Why we use insects for our experiments
  - 3. The long-term impact we hope to have.
- I tailor my remarks to the audience. Some are fascinated by our use of insect species. Others really only want to know the prospects for long-term health-related impact.
- As I speak, I gauge audience reaction and adjust in order to maintain interest – and I never use jargon!



### Where I've Used My Speech

- Testifying before Congress
- Advocating for research funds
  - Local legislators, AZ Board of Regents
  - Individual members of Congress
- Press conferences
- Brain Awareness Week presentations
- K-12 classroom visits
- Public lectures
- Community organizations and clubs
- Career-development workshops
- SfN Annual Meeting poster floor tour









# **Putting It All Together**

Scott Thompson



# **Scientific Description**

- My lab uses rodent models to study the causes of Major Depression with the expectation that a better understanding of the pathological changes will lead to better therapeutics.
- We believe that depression is caused by stress-induced weakening of some excitatory synapses in the reward circuitry.
- We are developing negative allosteric modulators of GABA receptors as rapidly acting antidepressants.





## **Elevator Speech**

- My lab is focused on the changes that occur in the brain in clinical depression. We expect that a better understanding of the changes in the brain that cause depression will lead to better therapeutic options. We use rat and mouse models to tackle these problems.
- Our work has led us to formulate a novel idea about what causes depression and has led us to develop a novel class of drugs that exerts a faster antidepressant action than currently approved drugs.





# **How I Developed My Speech**

#### AVOID!

- Jargon and complex terminology
- Methods and process
- Modesty and 'backing off'

#### DO!

- Convey excitement and promise
- Where is your research going?



## Where I've Used My Speech

- Cocktail parties
- Hill Day
- Press planning
- University press releases
- Speaking to donors
- Radio interview
- Brain Awareness Week







#### **Thank You**

#### Anne B. Young, MD, PhD

Chair of SfN's Government and Public Affairs Committee Former Chief, Neurology Service of Massachusetts General Hospital

Anne Young is Chair of SfN's Government and Public Affairs (GPA) Committee and Former Chief, Neurology Service of Massachusetts General Hospital and Distinguished Julieanne Dorn Professor of Neurology at Harvard Medical School.

Her research and neurology practice focus on neurodegenerative disorders such as Parkinson's disease. She has been involved in advocacy throughout her service on the GPA Committee and during her tenure as SfN President in 2003 - 2004.





# Q & A

#### Type your question into the question box.







#### Contact us at advocacy@sfn.org



BrainFacts.org





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