Engaging with the public is a professional responsibility for academic scientists and expected by many funding agencies. Engagement is also a civic duty. Importantly, engaging with the public develops professional skills central to a successful STEM career. Research shows that engaging with the public enhances communication, teaching, and leadership skills and enriches scientists’ own understanding of their research and field. However, most scientists are not taught the best practices for public engagement. Long-term, we aim to integrate public engagement skills and experience into the graduate and postdoc training curriculum and expand and improve public engagement at BEACON, UT Austin, and beyond.

We will focus on: 1) **Building a Frame**: Framing a message to be audience-appropriate is one of the most important parts of effective communication. Framing is a way of presenting information that appeals to and resonates with the audience without compromising the integrity or accuracy of the science. 2) **Hook the audience**: Humans are social and relationships matter. Connecting personally with the audience is central to effective engagement, especially with audiences that may disagree. 3) **Bridging the gap between STEM and public policy**: There is a rapidly growing interest among STEM professionals to engage with public policy and policy makers, but there is widespread uncertainty on how to do so effectively.

**Selected resources:**

**Calls to action and approaches to engagement:**
- Science advocacy: Get involved
- Give the public the tools to trust scientists
- Engaging the Scientific Community with the Public
- Researchers may have finally found an antidote to biased thinking about science
- What I learned from my visit to Capitol Hill about engaging with policy makers and mentoring students
- Universities should encourage scientists to speak out about public issues

**Articles with how to’s & recommendations:**
- Engagement 2.0: Increasing our Collective Impact
- How to Deal with Reluctant Audiences 1 (parts 2, 3, 4)
- Why can't scientists talk like regular humans?
- Scientists, Stop Thinking Explaining Science Will Fix Things
- The Essential Role of Storytelling in the Search for Truth
- Why Facts Don't Change our Minds

**Fellowships for STEM professionals in public policy:**
- AAAS Science & Technology Policy Fellowships (also see: ACS Congressional Fellowship)
- ACS Science Policy Fellowship
- SfN Early Career Policy Ambassadors Program
- APA Congressional Fellowship Program
- COMPASS Scientist Sentinels: Civic Engagement and Leadership Program
STEM & public policy training, resources, and opportunities:

- National Postdoc Association: A Postdoc’s Guide to Advocacy: Advocacy Overview; A Lobbying Primer; Understanding the Legislative Process; Making the Case for Science Research; Additional Resources
- National Postdoc Association: Science beyond the laboratory: Developing skills to be an effective advocate for science
- Engaging Scientists & Engineers in Policy (ESEP) Coalition
- American Institute of Biological Sciences, including: Congressional Visits Day (app due March 4), Communications Boot Camp for Scientists
- 314 Action (also see: Central Texas Chapter)
- AAAS Catalyzing Advocacy for Science & Engineering Workshop
- Union of Concerned Scientists

Science communication toolkits, training, and resources:

- AAAS: Science Communication Toolkit
- AAAS Center for Public Engagement with Science & Technology
- Frame Works Institute: Introduction to Strategic Frame Analysis eWorkshop
- Many Experts, Many Audiences: Public Engagement with Science and Informal Science Education
- ASBMB: The art of science communication
- National Alliance for Broader Impacts
- Portal to the Public
- Science communication: A practical guide
- From Science to Scicomm: A guide for scientists interested in a science communication career
- COMPASS Science Communication
- Alda Center for Communicating Science, including: Share Your Science: Blogging for Magazines, Newspapers and More
- National Center for Science Education, including How To and Training

Funding:

- Union of Concerned Scientists: Science for the Public Good Fund
- Society for the Study of Evolution: Small Grants Program for Local and Regional Outreach Promoting the Understanding of Evolutionary Biology
- European Society for Evolutionary Biology: Outreach Initiative
- NIH Science Education Partnership Award Program
- NSF Advancing Informal STEM Learning

Opportunities to engage: BEACON Center Institutions; UT Austin: Outreach; K-12 Students & Teachers

Research: See selected peer-reviewed research curated by Roxanne Bogucka, STEM Librarian at UT Austin

Books:

- Am I Making Myself Clear? by Cornelia Dean
- Don’t Be Such a Scientist by Randy Olson
- The Death of Expertise by Tom Nichols
- Unscientific America by Chris Mooney, Sheril Kirshenbaum
- Escape from the Ivory Tower: A guide to making your science matter by Nancy Baron
- Nudge: Improving decisions about health, wealth, and happiness by Richard Thaler, Cass Sunstein
- Don’t Think of an Elephant! by George Lakoff
- Switch: How to Change Things When Change is Hard by Chip Heath, Dan Heath
- If I Understood You, Would I Have This Look on My Face? by Alan Alda