

## Biology Ph.D. candidate

- Three first-author manuscripts in preparation
- Graduate Research Fellow with the National Science Foundation
- Designed and constructed devices to expose animals to altered gravity, compress with microfluidics, align with 3D-printing, and process microscopy images with human-in-the-loop automated segmentation

## Science communication

- Co-founder and lead writer for grassroots science communication program at Carnegie Mellon University
- Developed and taught workshops for faculty and graduate students
- Recognized by NSF-funded program as one of the top 30 innovators in science communication nationwide
- Directed communications for a biotech startup, leading to awards and investment

## Education

Carnegie Mellon University	Ph.D. in Biology
2018	<i>Tools to Examine Mechanotransduction</i> Certificate in Teaching Excellence
Oberlin College	B.A. in Neuroscience with chemistry minor
2009	B.A. in Music Theory with honors thesis

## Workshops Developed

Telling science stories	Scientific graphic design	Why are facts not enough?
Goal-driven communication	Talking to the media	Motivated reasoning and cultural cognition
Distilling your message	Vocal delivery	Intro to strategic frame analysis
Crafting explanations	Theater techniques	Communicating across social constructs

## Presentations

Faculty Media Training	Carnegie Mellon University School of Computer Science
Creating 2D Research Stories	Stanford University Human-Computer Interaction, San Francisco, CA
Finding your expert blindspot	Harvard University Strategic Data Project, Boston, MA
Explaining complexity	GSL Labs, San Francisco, CA
Why are facts not enough?	Institute for Religion in the Age of Science, Star Island, NH
Clear thinking made visible	AAAS 2015, San Jose, CA
Telling research stories	Texas A&M University webinar rated 4.9 / 5
Presentations with Purpose	CMU Alumni webinar rated 4.7 / 5
Keynote speaker, lecturer	Indiana University Science Communication Symposium
Panelist	SXSW edu 2017, Austin, TX
Understanding music theory	TEDxCMU speaker

## Work experience

Public Communication  
for Researchers

2012 – 2017

### Co-founder, Lead Writer & Designer

- Created 12 workshops in a curriculum on science communication
- Developed a five-year strategic plan, logos, posters, advertisement campaigns, website
- Taught faculty in Computer Science, 500 students in all STEM departments
- Worked closely in a team of three to organize events, manage \$10,000 annual budget

Rorus, Inc.

2014 – 2015

### Co-founder, Chief Technology Officer

- Established a lab, synthesized metal nanoparticles for a water purification technology
- Directed communications for successful grants, scripts for videos, technical white papers, presentations for investors, and startup contests

## Honors and Awards

2018

Third place, 3-Minute Thesis competition

2016

Founder.org Entrepreneurial Class

2015

Graduate Student Service Award: Public Communication for Researchers

2015

First place, McGinnis Venture Competition for Pittsburgh Startups

2012

TEDx talk named editor's choice with over 120,000 views

2012

National Science Foundation Graduate Research Fellow

## Writing in science communication

Contributor

*GradSciComm: Integrating Science Communication Training into STEM Graduate Education.*

Editorial Consultant

Grant & Jay 2017. *Breaking Through Gridlock*. Berrett-Koehler Publishers.

Author

*A 5-Year Plan to Build a Science Communication Center*. Public Communication for Researchers.

Author

*Grad School Is Hard on Mental Health. Here's an Antidote*. Chronicle of Higher Education.

Author

*A Biologist's Prayer*. Article at ScienceNonFiction.org.

## Peer-reviewed publications

**Shorr AZ**, Sönmez U, LeDuc PR, Minden SJ. Mechanoproteomics.

**Shorr AZ**, Sönmez U, Minden SJ, LeDuc PR. High-throughput mechanotransduction in *Drosophila* embryos with a microfluidic device.

**Shorr AZ**, LeDuc PR. A high-throughput method for exposing zebrafish to altered gravity, aligning for imaging, and segmenting neurons.

Moorman SJ, **Shorr AZ**. The primary cilium as a gravitational force transducer and a regulator of transcriptional noise. 2008;237: 1955–1959.

## Skills

Presentation  
Keynote

Statistics  
GraphPad, Mathematica

Graphic design  
Affinity Designer, Pages

Programming  
Java, LaTeX, ImageJ