

# Dr. Heather Masson-Forsythe, Ph.D.

Ph.D., Biochemistry & Biophysics  
Science Writer, Science Communicator, & Content Creator  
AAAS Science & Technology Policy Fellow, National Science Foundation  
Executive Editor, AAAS Sci on the Fly  
Co-Founder & CEO, Communitique  
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she/her

## Professional Experience

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**AAAS Science & Technology Policy Fellow**, Alexandria, VA 08/31/2022 - Present  
National Science Foundation, Computer and Information Science and Engineering (CISE)  
Directorate, Office of the Assistant Director; Office of Legislative and Public Affairs (OLPA)  
CISE Research Impact Analysis and Communications  
*Full-time*

### Accomplishments & Experiences:

- **Government Affairs Specialist**, Office of Legislative and Public Affairs (OLPA)  
Government Affairs Branch
  - Artificial intelligence (AI) and computer science portfolio communications management
  - Planning Congressional briefings and assisting on activities such as hearing preparation
  - Drafting written communications and reviewing congressional correspondence, including written and oral congressional testimony
  - Conducting outreach to Congress to highlight NSF activities, funding, and outcomes
  - Managing various government affairs content, strategy, and projects
  - Draft and review responses to press inquiries and production of press releases, statements, op-eds, articles, and web content surrounding NSF's AI and computer science activities
  - Supported coordination of launch and congressional communications for the Pilot Launch of NSF's National AI Research Resource
  - Legislation review
- **Development of 30+ presentations and accompanying talking points** for NSF CISE Assistant Director for diverse audiences, including the Director of NSF, the National Science Board, US universities, and international partners
- **Development of 20+ CISE impact stories** including, collaboration with data and communications teams, data research analysis, video and graphic art content creation using adobe creative cloud, talking point and speech writing, science writing, blog writing, storyboarding, storytelling, science communication, science writing, social media content development

- **Co-author, “Strategic Plan for Innovating the Data Ecosystem: An Update of The Federal Big Data Research and Development Strategic Plan”**, a report by the Big Data Interagency Working Group (BDIWG), Networking & Information Technology Research & Development (NITRD) Subcommittee of the National Science & Technology Council (NSTC)
- **Authored NSF Articles, *Science Matters*:**
  - [NSF gave Duolingo its wings!](#)
  - [Hip-hopping into a career in computer science](#)
  - [Bugbots could achieve big things](#)
- **CISE Representative for NSF’s Directorate for Technology, Innovation and Partnerships (TIP) Industry Convening Spring 2023:** strategic planning in collaboration with CISE leadership on future industry partnership priorities; content creation highlighting CISE research priority areas for Industry Convening; relationship development with invited industry leaders; report out to leadership
- **Lead NSF Sponsor for Grace Hopper Celebration 2023 (GHC23) in Orlando, FL:** for GHC23, the largest gathering for women in computing, managed organization of NSF’s sponsorship and participation in conference, including creation of novel outreach materials (hand-outs, video, and interactive booth setup), recruitment, organization, and management of booth participants, and interagency communications
- **Speaker, AmeriGEO Week 2023, San José, Costa Rica.** Presentation: “A Solution to International Transdisciplinary Funding Opportunities: Belmont Forum - NSF” / “Funding Computing-driven Solutions for a Sustainable Planet”
- **Research Funding Program support:** Design for Environmental Sustainability in Computing (DESC) program
- **Working group member and program management:** CISE Reverse Site Visit, Computing Community Consortium (CCC): Defining the Large-Scale Infrastructure Needs of the Computing Research Community. Grant review and program management, strategic planning, program evaluation, budget evaluation.
- **Working group member:** NSF Bioeconomy Coordinating Committee
- **Comic Con Panelist and NSF Science Stage performer,** Awesome Con: Washington D.C.’s Comic Con. 10+ live science experiment stage performances; hands-on demos of multidisciplinary science experiments for youth at NSF-sponsored booth. Panelist: “Welcome to the land of the DNAosaurs: an exploration of the future of bioengineering”
- **NSF Volunteer, White House Hallo-Read Halloween event:** supporting the NSF booth at this White House outreach event
- **Participant in The Fifth National Climate Assessment (NCA5) agency collaboration group.** Liaison between NCA5 communications group and NSF CISE leadership.
- **Legislative Referral Memorandum (LRM) Reviewer.** Review of all LRMs sent to CISE Directorate for technical and grammatical errors, concerns, or improvements including, agency reports, OSTP and agency congressional hearing responses, proposed and passed Bills, National Strategies, and congressional testimony.
- **Congressional Operations Seminar, Government Affairs Institute at Georgetown University** - Sep 2023, this course provides a comprehensive look at congressional procedure and organization, and at how Congress affects the daily operations of every department and agency in the executive branch. The Congressional Operations Seminar provides an understanding of formal processes, as well as the culture of the United States Congress.

- **Project Management Professional (PMP) Course** - Project Management Academy, completed June 2023

**Conferences:**

*Grace Hopper Celebration 2023* - Organization of NSF sponsorship and Participation  
*AmeriGEO Week 2023*, San José, Costa Rica.

Presentation: "A Solution to International Transdisciplinary Funding Opportunities:  
 Belmont Forum - NSF" / "Funding Computing-driven Solutions for a Sustainable Planet".

*Lesbians Who Tech Pride Summit 2023* - virtual

*American Association for the Advancement of Science Annual Meeting 2023*

*Association for the Advancement of Artificial Intelligence 2023*

*SAIL: Summit for AI Institutes Leadership 2022*

*SACNAS Diversity in STEM 2022*

**Professional Development Training:**

Congressional Operations Seminar - 2023

Project Management Professional (PMP) Course - Project Management Academy 2023

Budget Execution and Analysis - National Science Foundation 2023

Congressional Operations - National Science Foundation 2023

Product Management Series - LinkedIn Learning 2023

Data Visualization - LinkedIn Learning 2023

AAAS STPF Orientation - AAAS 2022

Program Evaluation for Scientists and Engineers - AAAS 2022

Merit Review Bootcamp - National Science Foundation 2022

Querying NSF Data in Enterprise Reporting - National Science Foundation 2022

Computer Science Principles: Digital Information - LinkedIn Learning 2022

**Executive Editor**, Washington D.C.

01/01/2023 - Present

AAAS Science & Technology Policy Blog, [Sci on the Fly](#)

*Part-time*

**Key activities:** management & leadership of a team of 5-8 editors, writing, proofreading, editing, operations management, content creation, community engagement, communications training

**Articles written:** [STPF at Comic Cons: Bridging the gap between science and fiction](#)

**Podcast produced:** [Careers in STEM Diversity, Equity, and Inclusion](#)

**Science Writer** Remote

12/01/2023 - Present

Surgical Data Science Collective

*Part-time*

**Key activities:** science communication, science writing, blog writing, strategic communications, editing, publication review, grant writing and editing, interviews, social media, script writing

- Authored: [An AI-powered scientific hub for the global surgical community](#)

**Cofounder & CEO** Remote

09/01/2023 - Present

Communitique

*Part-time*

[Communitique](#) is a rapidly growing free platform for trading clothes locally, disrupting the negative environmental cost of fashion through textile reuse within a local community. In Communitique's first month post launch, thousands of users joined from all 50 United States, as well as from France, Canada, Mexico, Finland, United Kingdom, Rwanda, and more

**Key activities:** science communication, strategic communications, branding, application design, social media, adobe creative suite, marketing, climate research, sustainability research, grant writing, small business management, entrepreneurship, financial planning and budgeting

## **TikTok Creator, Remote**

01/01/2019 - Present

*Part-time*

**Accomplishments:** As a PhD researcher, I used TikTok trends including songs, memes, and dances to communicate science & scientist culture on TikTok social media app, including COVID19 research, vaccine information, navigating graduate school, career options in STEM, new technologies, and more. I have created many videos with tens of thousands-1M views, and accumulated >50K followers, and >1M likes. My account has been recognized in Forbes, International Business Times, and more. Sponsored brand deals included Twist Bioscience and MilliporeSigma

**Key activities:** science communication, video production, video editing, audio production, social media content creation, social media management, sponsored content management, data analytics, public speaking, script writing, community engagement, brand marketing, sponsored content creation

## **ASBMB Today Contributor, Remote**

08/01/2021 - 10/31/2022

*Part-time*

**Key activities:** Contributing writer for the American Society for Biochemistry and Molecular Biology's magazine. Interviewed academic researchers and industry leaders and various career stages, synthesized and communicated scientific research articles.

### Published articles

[Bhabha found creativity in hard science](#)

[Artists, technologists bring data storage to life](#)

[Finding ways to help through research and teaching](#)

[LGBT+ scientists face location limitations](#)

[Chapter member aims for the moon, lands on astrobiology](#)

[It's what's on the outside that counts](#)

[In memoriam: Thomas Edward Thompson](#)

[From the journals: JLR](#)

## **Ph.D. Graduate Research Assistant**

09/01/2016 - 10/31/2021

Oregon State University, Corvallis, OR

*Full-time*

### **Accomplishments & Experiences:**

- Coauthor of 5 research publications (3 first-author) - see research publications below
- Coauthored and awarded National Science Foundation Division of Molecular and Cellular Biosciences EAGER grant MCB 2034446 to E.J.B.
- Research poster presentations and invited research talks
- Media interviews, including *Forbes*, *Science*, *NPR*, local TV news, and more.
- Research team mentorship, management, and collaboration

**Key activities:** Experimental design, team management, project management, data analysis, technical writing, public speaking, presentations, graphic design, data visualization

**Undergraduate Research Students Advised:** Jori Casey, Sarah McKay, Seth Pinkney, Mary Hare, Hanh Thi My Hoang, Joaquin Rodriguez Galvan, Brianna Donner, Alicia Vuong, Prajna Woonnimani

**Ph.D. Research & Development, Corvallis, OR**

01/01/2020 - 12/31/2020

Hewlett Packard, Microfluidics Futures Lab

*Part-time*

**Key Activities:** Collaborated with an interdisciplinary engineering team for biotechnology product development; experimental design; biochemistry and bioengineering laboratory research

**Executive Producer, Editor, and Cohost**

09/01/2018 - 03/31/2020

Oregon State University, Corvallis, OR

88.7 KBVR-FM Corvallis, "Inspiration Dissemination" Live Radio Show, Podcast, and Blog sharing research and personal stories of graduate students at Oregon State University

*Part-time*

**Key Activities:** team management & leadership of 6-10 cohosts; recruited and interviewed graduate researchers about their work and translated their work into articles for a non-technical audience, followed by a live radio interview that I trained interviewees for. Interviews were recorded each week and edited for podcast production; writing, proofreading, editing, operations management, content creation, audio production, sound editing, storyboarding, training, public speaking coach, science communication

**Blog posts:**

- o "Monkeying around in the lab to find a good egg"
- o "The bacteria living inside us and what they have to say about autism"
- o "This time, it actually is rocket science: computational tools for modeling combustion"
- o "3D modeling rock shape: archeological research of the earliest North Americans"
- o "Kayaks and Computers: the gray whale research essentials"
- o "Treating the cancer treatment: an investigation into a chemotherapy drug's toxic product"
- o "Finding cancer with sound: the development of nanoparticles to deliver light-to-sound converting agents"

**Podcast Episodes**

- o Grad Inspire 2020
- o Proteins run the show (except when they unfold and cause cataracts)
- o Robots! A Story of Engineering and Biology
- o A Blade of Seagrass is a Powerful Thing
- o Finding a place in policy: where do the scientists fit in?
- o Working with Dungeness crab fishermen to get a 'sense' of low-oxygen conditions off the Oregon coast
- o Swimming with Salmon(ids)
- o Monkeying around in the lab to find a good egg
- o The bacteria living inside us and what they have to say about autism
- o Repair, Don't Replace: Developing a New Treatment for Lower Back Pain
- o 3D Modeling Rock Shape: Archeological Research of the Earliest North Americans
- o Tsunami Surfing and the Giant Snot
- o If a Fault Moves at the Bottom of the Ocean, Can Anyone Hear It?

- [Kayaks and Computers: The Gray Whale Research Essentials](#)
- [Treating the Cancer Treatment: An Investigation into a Chemotherapy Drug's Toxic Product](#)
- [Finding Cancer with Sound: The Development of Nanoparticles to Deliver Light-to-Sound Converting Agents](#)

**Graduate Teaching Assistant, Biochemistry & Biophysics** 09/01/2016 – 12/31/2019  
Oregon State University, Corvallis, OR

*Part-time*

Courses taught: Freshman Biology lab for non-majors, Freshman Biology lab for majors, Biochemistry for non-majors, Senior level Biochemistry Teaching Lab for Biochemistry and Bioengineering majors, Cell and Molecular Biology for Majors

Key Activities: Developed quizzes; graded exams and homework; gave feedback on scientific writing, held office hours, coordinated grading and labs with a team of 5+ teaching assistants

**Arkansas Governor's School Resident Assistant** 06/01/2016 - 08/01/2016  
Hendrix College, Conway Arkansas

*Full-time*

**Key activities:** group leader and mentor for the publicly funded residential summer program offered to rising seniors in the state of Arkansas; event planning, community engagement, leadership, mentorship

**Schedler Honors College Office Assistant,** 01/01/2015 - 05/30/2016  
University of Central Arkansas, Conway Arkansas

*Part-time*

**Key activities:** organization, scheduling, internal communications, staff support, paperwork

**Organic Gardening Intern,** 06/01/2015 - 08/01/2015  
University of Central Arkansas, Conway Arkansas

*Part-time*

**Key activities:** management of the Schedler Honors College organic garden

## Research Publications

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**Forsythe, H. M.**, Galvan, J. R., Yu, Z., Pinckney, S., Reardon, P., Cooley, R. B., ... & Barbar, E. (2021). Multivalent binding of the partially disordered SARS-CoV-2 nucleocapsid phosphoprotein dimer to RNA. *Biophysical Journal*.

**Forsythe, H.M** & Barbar E (2021). The Role of Dancing Duplexes in Biology and Disease. *Progress in Molecular Biology and Translational Science*.

**Forsythe, H. M.**, Vetter, C. J., Jara, K. A., Reardon, P. N., David, L. L., Barbar, E. J., & Lampi, K. J. (2019). Altered protein dynamics and increased aggregation in human  $\gamma$ S-crystallin due to cataract-associated deamidations. *Biochemistry*.

Estelle, A. B., **Forsythe, H. M.**, Yu, Z., Hughes, K., Lasher, B., Allen, P., ... & Barbar, E. J. (2023). RNA structure and multiple weak interactions balance the interplay between RNA binding and phase separation of SARS-CoV-2 nucleocapsid. *PNAS nexus*, 2(10), pgad333.

Galvan, J.R., Donner, B., Veseley, C.H., Reardon, P., **Forsythe, H. M.**, Howe, J., Fujimura, G., & Barbar, E. (2021). Human Parainfluenza Virus 3 Phosphoprotein Is a Tetramer and Shares Structural and Interaction Features with Ebola Phosphoprotein VP35. *Biomolecules*.

## Research Experience

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**Ph.D. Research** 09/01/2017 - 10/31/2021

Advisor: Dr. Elisar Barbar, Oregon State University

Thesis: "Proteins in Motion: Protein Dynamics of Cataracts, and Interactions Between the COVID-19 Virus and its RNA Genome"

Research interests: protein dynamics, protein structure and function relationships, intrinsically disordered proteins, nucleotide-protein binding interactions

Lab Experience: Bacterial protein expression and purification, 1D 2D & 3D nuclear magnetic resonance, cloning, plasmid prep, column chromatography, transformation, PCR, DNA extraction, ion exchange, SDS-PAGE, agarose gel electrophoresis, analytical ultracentrifugation, circular dichroism crystallography, analytical ultracentrifugation, isothermal titration calorimetry, Linux and Command line proficient, Python basics

**Ph.D. Research & Development,** 01/01/2020 - 12/31/2020

Hewlett Packard, Microfluidics Futures Lab

**Key Activities**: Product development, experimental design

**Graduate Rotation Project,** 01/31/2017 - 05/31/2017

Linus Pauling Institute, Oregon State University

"The Effects of Age and Dietary Restriction on the Brain Metabolome of the Killifish"

**Graduate Rotation Project,** 09/01/2016 - 12/31/2016

Advisor: Dr. Dave Hendrix, Oregon State University

"Developing an Age-dependent Model of the Circadian Clock"

**Honors Biology Research Thesis, Conway, AR** 08/01/2014 - 05/01/2016

Advisor: Dr. Mindy Farris, University of Central Arkansas

"Effect of Hormone Precursor Availability on Lifespan & Stress Resistance of Long-lived *C. elegans*"

**Research Assistant, Little Rock, AR** 06/01/2014 - 05/01/2016

Advisor: Dr. Gulner Com, Arkansas Children's Hospital

"Longitudinal Assessment of Fat Free Mass Index and its Impact on Clinical Outcome of Children with Cystic Fibrosis"

**Honors Research Thesis, Conway, AR** 08/01/2014 - 05/01/2016

Advisor: Dr. Ellen Stengel, Dept of Writing, University of Central Arkansas

"Harry Potter and the Ugly Passport Photo"

Study abroad program developed for university's Writing, Childhood Education, Film & Biology programs following an independent study abroad in Ireland, the UK, and Portugal

**Training & Study Abroad: Science and Society in Rwanda** 01/01/2014 - 05/31/2014

Developed and taught science lessons for Rwandan primary schools, including a school for the deaf; Mountain Gorilla Trekking; Kanembwe village visit to learn pottery making and dance

Project WET (water education for teachers) Certified, 2014

Project WILD Certified: education rooted in nature, 2014

## Education

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**Ph.D. Biochemistry & Biophysics, Oregon State University** 12 Oct 2021

Thesis: "Proteins in Motion: Protein Dynamics of Cataracts, and Interactions Between the COVID-19 Virus and its RNA Genome"

**B.S. Biology, University of Central Arkansas** 31 May 2016

Biology Thesis: "Effect of Hormone Precursor Availability on Lifespan & Stress Resistance of Long-lived *C. elegans*"

Minor: Honors Interdisciplinary Studies, Norbert O. Schedler Honors College

Honors Thesis: "Harry Potter and the Ugly Passport Photo", Department of Writing

**International Baccalaureate Diploma, North Little Rock High School** 31 May 2012

## Honors and Awards

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**[Moth StorySLAM Champion, Washington D.C.](#)** 2023

**[College of Science Inclusive Excellence Award](#)** 2021

This award recognizes the outstanding work of a faculty, staff, or student in advancing inclusive excellence at Oregon State University.

**["Dance Your Ph.D." COVID-19 Category Winner](#)** 2021

The Dance Your Ph.D. contest hosted by *Science* challenges scientists to explain their research through dance. The judges select winners in the categories of physics, chemistry, biology, and social sciences. In 2020/21, they also crowned the winner of a new category, COVID-19.

**Anniversary Award Winner – The Protein Society** 2021

Award to attend and present my research at the 35th Annual Symposium



**HP InternSteller Customer Impact Award, runner-up** 2020

Award given to the HP intern across all of Hewlett Packard's international campuses whose project is expected to have a positive impact for HP customers

**Finn Wold Travel Award – The Protein Society** 2019

Travel Award of up to attend and present my research at the 33rd Annual Symposium

**KEVIN'S CHOICE AWARD 2019 “NMR is GOOD” Contest** 2019

NMR spectra-turned-art submitted to be showcased at the 2019 Experimental Nuclear Magnetic Resonance Conference. Submission: “WT human gS crystallin”. Awarded by Cambridge Isotope Laboratories

**BB GSA Travel Award** 2019

Travel Award from the dept of Biochemistry & Biophysics at Oregon State University, organized by the BB graduate student association

**Schedler Honors College Travel Award** 2015

Travel award from the University of Central Arkansas Schedler Honors College to spend a summer backpacking in Europe and developing “Harry Potter and the Ugly Passport Photo,” an independent study abroad program created in collaboration with university's Writing, Childhood Education, Film & Biology programs

**Schedler Honors College Travel Award** 2014

Travel award from the University of Central Arkansas Schedler Honors College to spend a summer studying abroad in Rwanda

## **Science Communication & Community Engagement**

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**CISE Research Impact Anlysis and Communications** 01 Sep 2022 - Present

National Science Foundation. See “Professional Experiences”

**TikTok Content Creator [@heycurllytop](#)** 01 Sep 2019 - Present

As a PhD researcher, I used TikTok trends including songs, memes, and dances to communicate science & scientist culture on TikTok social media app. I have created many videos with tens of thousands-1M views, and accumulated >50K followers, and >1M likes

**Awesome Con Panelist & Performer** 16-18 June 2023

Washington D.C.'s Comic Convention, Washington, D.C.

Article: [STPF at Comic Cons: Bridging the gap between science and fiction](#)

Panelist: “Welcome to the land of the DNAosaurs: an exploration of the future of bioengineering”

NSF booth and science stage: 10+ live science experiment stage performances; hands-on demos of multidisciplinary science experiments for youth at NSF-sponsored booth

<b>Keynote Speaker</b>	9 Mar 2023
Girls' Empowerment, Engineering, and Outreach; Oregon State University	
<b>Lead Biochemistry Judge</b>	26 Jan 2023
Alexandria VA Science Fair	
<b><a href="#">#LGBTQinBMB</a>: LGBTQ+ STEM community Twitter Chat</b>	27 June 2022
<b>Keynote Speaker</b>	31 Mar 2022
<a href="#">Girls of Promise Conference</a> , is a free opportunity for 8th-grade girls across Arkansas to be introduced to opportunities, careers, and mentors in the fields of Science, Technology, Engineering, Arts, and Math (STEAM), <a href="#">Women's Foundation of Arkansas</a>	
<b>ComSciCon National Flagship Workshop</b>	4-7 Aug 2021
<a href="#">ComSciCon</a> provides graduate student attendees with a one-of-a-kind opportunity to meet early career leaders in Science Communication, learn from and interact with a remarkable group of invited experts, and produce an original work communicating complex technical concepts from science and engineering to a new audience.	
<b>STEM FOR ALL VIDEO SHOWCASE</b>	2021
COVID-19, Equity, & Social Justice Submission: " <a href="#">Dancing in STEM: Social Media Trends to Bring STEM to All</a> "	
<b><a href="#">#ASBMBSciArt</a>: Science &amp; Art Twitter Chat</b>	27 May 2021
<b>GRAD Inspire: Ideas in Action</b>	2019-2021
2021: MC of event 3 Mar 2020: Nominated graduate students to give a short talk in the style of TEDx talks and coached selected students to formulate a unique, short, and impactful story. Attending GRAD Inspire (formally GRADx) planning meetings with the graduate school, coordinating event space, nominations, coaching selected students through developing their talks, and MC of event. <a href="#">PODCAST</a> & <a href="#">TRANSCRIPT</a>	
<b>GRADx: Ideas in Action</b>	2018-2019
As co-coordinator, nominated graduate students to give a short talk in the style of TEDx talks and coached selected students to formulate a unique, short, and impactful story. <a href="#">PODCAST</a>	
<b>OSU Biochemistry &amp; Biophysics Graduate Student Association</b>	2017-2020
Vice President, 2019-2020 Social Media/Publicity Coordinator, 2017-2020	
<b>Elisar Barbar Lab</b>	2017-2020
<a href="#">Twitter</a> Page and <a href="#">Website</a> Coordinator	

Science Music Video Director, "[Protein Prep for NMR](#)". 2018

### **ResearchHers Code Contributor**

2019

Hosted on [ResearchHers](#) Code's [Twitter](#) account

### **Biochemistry & Biophysics Summer Camp Volunteer**

2017, 2018, 2019

Week-long day camp led, organized, and planned by graduate students in Biochemistry and Biophysics. 8th graders learn about lab safety, DNA structure, transcription and translation, protein structure and function, microscopes, evolution, model organisms, etc, through hands-on activities, including lab experiments, outdoor activities, and crafts. Additionally, campers participate in activities designed to highlight the diverse backgrounds of scientists.

### **"Discovering the Scientist within" Volunteer**

2017, 2018, 2019

A free Saturday workshop at Oregon State University designed to introduce middle school girls to careers in science, technology and engineering.

### **Diversity, Equity, & Inclusion BB Dept co-organizer**

2019-2020

With faculty and other graduate students created a department workgroup with the intent of continually working to make our department welcoming and inclusive. Organized a speaker visit for Dr. Sharona Gordon, led department in DEI activities at department retreat.

### **"Girls of Power" Volunteer**

2014, 2015, 2016

A free Saturday workshop at University of Central Arkansas designed to introduce middle school girls to careers in science, technology and engineering.

### **Independent Study Abroad: Ireland, UK, and Portugal**

1-31 May 2015

Solo backpacking trip to develop a study abroad program for University of Central Arkansas's Writing, Childhood Education, Film & Biology programs based on the Harry Potter series.

### **Study Abroad: Science and Society in Rwanda**

1-31 May 2014

Developed and taught science lessons for Rwandan primary schools, including a school for the deaf; Mountain Gorilla Trekking; Kanembwe village visit to learn pottery making and dance

### **I.D.E.A.L. Leadership Team**

2012-2016

The goal of the ideal Freshmen Leadership Team is to mold a group of high-potential incoming freshmen into the future leaders of the University of Central Arkansas, teaching them the skills they will need to be successful, ethical leaders and integrating them into the University's leadership structure. University of Central Arkansas. Member 2012, Mentor 2013-2016.

## **Conference Presentations**

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### **International Conferences:**

Booth Sponsor, The National Science Foundation

Grace Hopper Celebration 2023, Orlando, FL. Sep 26 - 29 2023

Talk, “A Solution to International Transdisciplinary Funding Opportunities: Belmont Forum - NSF” / “Funding Computing-driven Solutions for a Sustainable Planet”  
AmeriGEO Week 2023, San José, Costa Rica. August 7-12 2023

Talk, “A Dancing Duplex: The SARS-CoV-2 Nucleocapsid Phosphoprotein’s Multivalent Binding to RNA”  
The Protein Society Annual Symposium, Virtual, 7-9, 12-14 July 2021

Poster, “The SARS-CoV-2 Nucleocapsid protein Binds RNA Multivalently”  
The Protein Society Annual Symposium, Virtual, 7-9, 12-14 July 2021

Invited Talk, “Multivalent binding of the partially disordered SARS-CoV-2 nucleocapsid phosphoprotein dimer to RNA”  
2021 IDPSIG Virtual Symposium, Virtual, 3 June 2020

Poster, “#DancingInSTEM: TikToking Covid19 Research”  
2021 Science Talk, Virtual, 24-26 March 2021

Talk, “Multivalency and protein disorder in virus protein interactions: Common themes among Rabies virus and SARS-CoV-2”  
Molecular Bases of Proteinopathies: 2020-2021 virtual meeting of talks, activities, and discussion on "protein multimerization: the bad and the good"  
Virtual, 9 January 2021 [RECORDING](#)

Poster, “Crystallin in motion: Deamidation Resulting in Global Changes in Protein Dynamics”  
The Protein Society Annual Symposium, Seattle WA, 30 Jun–3 July 2019

Poster, “Effects of Surface Deamidation on the Backbone Dynamics and Solvent Accessibility of Cataracts-Associated Protein,  $\gamma$ S-crystallin”  
2019 Experimental Nuclear Magnetic Resonance Conference, Pacific Grove, CA, 7-12 April 2019

### **Regional/National Conferences:**

Science Pub, “Investigating How COVID-19 Proteins Stick to Viral RNA & Taking Research from the Lab to the Dance Floor.”  
Virtual, March 14 2022

Lightning Talk, “Effects of Surface Deamidation on the Backbone Dynamics and Solvent Accessibility of Cataracts-Associated Protein, gS-crystallin”

Center for Genome Research and Biocomputing Fall Conference, Corvallis OR, 20 September 2019

Poster Presentations, “Altered protein dynamics in gS-crystallin due to cataract-associated deamidations Protein, gS-crystallin” and

“Science Outreach through College Radio,”

2019 Diversity STEMposium, Eugene OR, 6 September 2019

Poster Presentation, “Effects of Surface Deamidation on the Backbone Dynamics and Solvent Accessibility of Cataracts-Associated Protein, gS-crystallin”

Center for Genome Research and Biocomputing Spring Conference, Corvallis OR, 19 April 2019

Poster Presentation, “Science Outreach through College Radio”

2019 Science Talk, Portland, OR, 4-5 April 2019

Poster Presentation, “Dynein Binding of Competitive Regulators Dynactin and NudE Involves Novel Interplay between Phosphorylation Site and Disordered Spliced Linkers”

2017 BioNMR Symposium, Corvallis, OR, 4 August 2017

## Media Features

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**Interview, *Forbes*** 2021

[“Dance Shows How A Coronavirus Protein Interacts With Its Genetic Material”](#)

**TV Interview, *KGW8*** 2021

[“OSU researcher uses dance to explain COVID-19”](#)

**Interview, *OSU News Room*** 2021

[“Deep dive into key COVID-19 protein is a step toward new drugs, vaccines”](#)

**Interview, *Science*** 2021

[“Watch the winners of this year’s ‘Dance Your Ph.D.’ contest”](#)

**Feature, *National Public Radio (NPR)*** 2021

[“Watch The Winners Of The 'Dance Your Ph.D' Contest Make Cloud Formation Catchy”](#)

**Interview, *ASBMB Today*** 2021

[“Become the protein”](#)

**Feature, *International Business Times*** 2021

[“Scientist's Viral TikTok Quells COVID-19 Vaccine Fears To The Tune Of Megan Thee Stallion”](#)

**Feature, *National Science Foundation*** 2021

[“Deep dive into key COVID-19 protein is step toward new drugs, vaccines”](#)

**Interview, *OSU News*** 2021

[“Dancing through genres, biochemistry/biophysics student wins Science Magazine's Dance Your Ph.D. contest”](#)

**Interview, *Arkansas Democrat-Gazette*** 2021

[“North Little Rock grad a dancer of science”](#)

**Feature, *cnet*** 2021

[“See coronavirus replication explained through interpretive dance”](#)

**Feature, *ars Technica*** 2021

[“Meet this year's winners of the Dance Your PhD contest”](#)

**Podcast Interview, *The Controversial Dive*** 2021

[“Please Wear a Mask \(Diving into COVID-19\)”](#)

**Podcast Interview, *WHAT ARE YOU GOING TO DO WITH THAT?*** 2021

[“Episode 38 - Dance your Sci-Comm \(with Heather Masson-Forsythe\)”](#)

**Interview, *Twist Bioscience Blog*** 2020

[“STEM vs. STEAM, why STEM Should Welcome the Arts!”](#)

**Podcast Interview, *Chemistry Cayk online podcast*** 2020

[“The Versatile LC8 Protein with Heather Masson-Forsythe”](#)

**1MWIS** 2020

1 Million Women in STEM Exists to spotlight 1 million STEM women to provide visible role models & inspire the next generation of girls.

**Blog & Podcast Interview, *Inspiration Dissemination*** 2019

[“Proteins run the show \(except when they unfold and cause cataracts\)”](#)