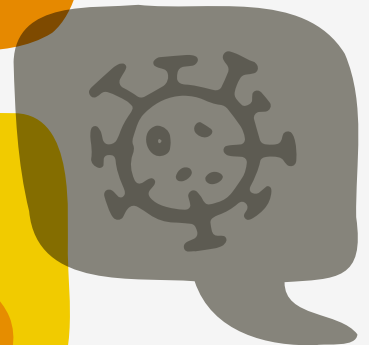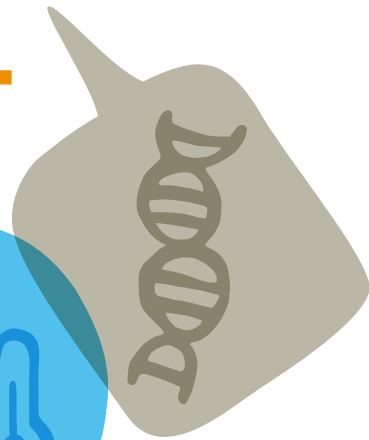# SPEAKING SCIENCE
FROM SNPS TO STORIES:

AMPLIFYING UNDER-REPRESENTED VOICES IN AGRICULTURAL GENE EDITING

AUGUST 3-5, 2022
TUSKEGEE UNIVERSITY, ALABAMA

Renaissance Montgomery Hotel & Spa, Alabama

FOUNDATION FOR FOOD & AGRICULTURE RESEARCH

TUSKEGEE UNIVERSITY

ALLIANCE FOR SCIENCE

CONTENT

FFAR

TUSKEGEE UNIVERSITY

ALLIANCE FOR SCIENCE

WELCOME AND OVERVIEW

Thank you for attending "Speaking Science." This course is organized by the Alliance for Science (AfS), in partnership with Tuskegee University and the Foundation for Food and Agriculture Research (FFAR), to help amplify the voices of students who are under-represented in the field of agricultural biotechnology by empowering them with effective tools for communicating about gene editing.

Format of training

The course will include presentations, break-out sessions, practical exercises, and an evening networking reception.

Core objectives of training

▶ Offer tools for effectively communicating about gene editing using the new AfS gene editing messaging kit

▶ Give participants skills they can use in communicating about gene editing

▶ Public speaking and story telling

Norms

▶ Stay on time

▶ Challenge the idea, not the person

▶ Be both teachers & learners

▶ Take space & make space for others

Expected outputs

▶ Storytelling skills acquired

▶ At least one communication activity developed

▶ Message triangle developed and practiced

▶ Research pop talks practiced

▶ Original written/multimedia piece on gene editing drafted

WHO WE ARE

The Alliance for Science (AfS) advocates for science-based solutions to the key issues of our time, including reducing agriculture's environmental footprint, mitigating the climate crisis, reducing poverty, and improving food security and nutrition.

AfS supports worldwide access to life-improving agricultural innovations, including agricultural biotechnology. It also actively counters misinformation about agricultural biotechnology, climate change, vaccines, COVID-19, and other science issues. AfS creates and implements powerful multimedia communications campaigns, offers training in leadership and advocacy, builds coalitions, and mobilizes a global network to advance science-based narratives and policies.

Tuskegee University is an independent and state-related institution of higher education. Its programs serve a student body that is coeducational as well as racially, ethnically, and religiously diverse. With a strong orientation toward disciplines that highlight the relationship between education and work force preparation in the sciences, professions, and technical areas, Tuskegee University also emphasizes the importance of the liberal arts as a foundation for successful careers in all areas.

Tuskegee's mission has always been service to people. It stresses the need to educate the whole person, that is, the hand and the heart as well as the mind. Founded by Dr. Booker T. Washington, the institution was acclaimed first by Alabama and then by the nation for the soundness and vigor of its educational programs and principles.

The **Foundation for Food and Agriculture (FFAR)** connect funders, researchers, and farmers through public-private partnerships to support audacious research addressing the biggest food and agriculture challenges. FFAR's unique public-private partnership model allows it to collaborate with diverse stakeholders to identify research opportunities that help farmers adapt to challenges like extreme weather, diminishing natural resources, and a growing global demand for their crops.

FFAR advances actionable science to develop tools, technologies, and information that benefit farmers, consumers and the environment.

TRAINING AGENDA

Tuesday, 2nd August 2022

TIME (CST)	PREPARATION	RESOURCE PERSON
9:00am- 5:00pm	Arrival and pre-registration	**Alliance for Science**

Wednesday, 3rd August 2022

TIME (CST)	PREPARATION	RESOURCE PERSON
08:30 - 09:00 am	Welcome; introductions, course norms, overview of course agenda	**Channa Prakash Modesta Abugu**
09:00 - 09:10 am	Icebreaker activity	**Modesta Abugu**
09:10 - 10:00 am	Why communicate science?	**Wayne Parrott**
10:00 - 10:30 am	Gene editing 101	**Nicholas Karavolias**
10:30 - 10:45 am	Overview of US and global policies on gene editing	**Luis Ventura**
10:45 - 11:00 am	**Break**	**All**
11:00 -11:30 am	Introduction to gene editing messaging kit	**Joan Conrow**
11:30 - 11:50 pm	How is gene editing being used? Opportunities and obstacles for messaging	**Luis Ventura and Nicholas Karavolias**
11:50 - 12:00 pm	Ways to communicate about science (social, op eds, legislative outreach, community engagement, media outreach, etc)	**Modesta Abugu**
12:00 - 01:00 pm	Lunch	**All**
01:00 - 01:30 pm	Engaging with policy makers	**Sarah Goldberg**
01:30 - 01:45 pm	Good communications practices	**Play video**
01:45 - 02:30 pm	Activity: Developing your communication plan	**Modesta Abugu**
02:30 - 02:45 pm	Share out	**All**
02:45 - 03:00 pm	**Break**	**All**
03:00 - 03:15 pm	Introduction to storytelling	**Modesta Abugu**
03:15 - 03:45 pm	Activity in breakout rooms: finding the story in your research or scientific study	**Training team**
03:45 - 04:00 pm	Share out	**All**
04:00 - 04:20 pm	Preparing compelling slides	**Nicholas Karavolias**
04.25 - 04:30 pm	One minute pop talks	**Group 1**
04:30 - 04:45 pm	Recap and key takeaways	**Luis Ventura**
04:45 - 05.00 pm	Feedback, evaluations and day 2 announcement	**Modesta Abugu**
05:00 - 07.00 pm	Reception and light supper at hotel	**All**

Thursday 4th August 2022

TIME (CST)	DAY 2 – ADVOCACY AND COMMUNICATION	RESOURCE PERSON
08:30 - 08:50 am	Welcome and recap from day 1, skills and messaging	Nicholas Karavolias
08:50 - 09:00 am	Energizer	Modesta Abugu
09:00 - 09:45 am	Conveying complex concepts to the interested non-expert	Sheila Ochugboju
09:45 -09:50 am	Introduction to message map	Modesta Abugu
09:50 - 10:15 am	Activity: Message map development	Training team
10:15 - 10:30 am	**Break**	**All**
10:30 - 10:40 am	1 min pop talks	Group 2
10:40 -11:00 am	Writing a good opinion piece using research news method	Joan Conrow
11:00 - 11:30 pm	Activity in breakout groups: developing an idea for an opinion piece	Training team
11:30 - 11:40 pm	Share out	All
11:40 - 12:00 pm	Ideas for engaging with your community	Luis Ventura
12:00 - 01:00 pm	**Lunch**	**All**
01:00 - 01:10 am	1 min pop talks	Group 3
01:10 - 01:20 pm	Engaging effectively on social media; trending topics (Cision)	Modesta Abugu
01:20 - 01:40 pm	9 Tips to an engaging social media post	Modesta Abugu
01:40 - 02:00 pm	Activity in breakout rooms: developing social media posts	Training team
02:00 - 02.10 pm	Experience sharing and social media posts discussions	Channa Prakash
02:10 - 02.20 pm	**Break**	**All**
02:20 - 02:25 pm	One minute pop talks	Group 4
02:25 - 02.45 pm	Webinar best practices and activity	Modesta Abugu
02:45 - 02:50 pm	Evaluating gene editing messaging kit	Joan Conrow
02:50 - 02.55 pm	Recap and preparing for final day	Nicholas Karavolias
02:55 - 03:00 pm	**Break and prepare for Tuskegee departure**	**All**
03:00 - 04:00 pm	Travel to Tuskegee via bus	
04:00 - 04:30 pm	Visit George Washington Carver Museum	
04:30 - 5:00 pm	Tour of Tuskegee biotech labs	
05:00 - 05:30 pm	Fellowship and mixing	

Thursday 4th August 2022 (continuation)

TIME (CST)	DAY 2 – ADVOCACY AND COMMUNICATION	RESOURCE PERSON
5:30 – 6:00 pm	Evening reception at Tuskegee ▶ **Welcome remarks Dr. Keith S. Hargrove**, Provost and Sr. VP Academic Affairs, Tuskegee University ▶ **Keynote address by Dr. LaKisha Odom,** Tuskegee graduate and FFAR scientific program director ▶ **Closing Remarks – Dr. Channa Prakash,** Dean, College of Arts and Sciences, Tuskegee University	
6:00 – 7:30 pm	**Group photo** Dinner at the atrium of JHM Henderson Hall	
7:30 - 8:30 PM	**Travel to Montgomery via bus**	

Friday 5th August 2022

TIME (CST)	DAY 2 – PUBLIC SPEAKING	RESOURCE PERSON
08:30 - 08:50 am	Recap and Energizer	Luis Ventura
08.50 - 09.00am	1 min pop talks	Group 5
09:00 - 09:15 am	Effectively engaging media	Joan Conrow
09:15 - 09:30 am	Dos and don'ts in giving good radio /TV interviews	Modesta Abugu
09:30 - 10:00 am	Activity in breakout rooms: practicing interview techniques	Training team
10:00 - 10:10 am	Sharing and discussion	All
10:10 - 10:25 am	**Break**	**All**
10:25 - 10:50 am	Commitments from participants **Blog posts, idea for community engagement, social media posts, op eds**	Training team
10:50 - 11:30 pm	Activity: refining your plan and preparing to give 5-minute report	Training team
11:30 - 11.40 pm	Sharing and critiquing plans. **Group 1**	Training team
11:40 - 12:00 pm	Sharing and critiquing plans. **Group 2**	Joan, Sheila, Prakash
12:00 - 01:00 pm	**Lunch**	**All**
01.00 - 01:10 pm	Key takeaways and course evaluation	Nicholas Karavolis
01:00 - 02:20 pm	Certificates	Prakash and LaKisha
01:20 - 01:30 pm	Closing remarks and acknowledgements	Sheila Ochugboju
01:30 pm	**Departure**	**All**

PRESENTER AND TRAINER BIOS

Dr. Channa Prakash is the Dean of the College of Arts and Sciences and a Professor of Genetics and Genomics at Tuskegee University. He is a skilled communicator who serves as editor in chief of the journal "GM Crops & Food: Biotechnology in Agriculture and Food Chain". He also won the 2015 Borlaug 'Council for Agricultural Science and Technology (CAST)' Communication Award. Prakash has a very active social media presence (@AgBioWorld) and moderates a dynamic online discussion group.
cprakash@tuskegee.edu

Dr. Wayne Parrott is a Distinguished Research Professor of crop sciences in the University of Georgia's College of Agricultural and Environmental Sciences in Athens. Since 2017, he has also been an Elected Fellow of the American Association for the Advancement of Science. People in Wayne's group conduct research on the development and use of technology for crop genetic engineering and genome editing. The lab members also use molecular marker as a tool for transgene deployment, work in gene discovery, and study insect resistance. Wayne earned his PhD in plant breeding and plant genetics from the University of Wisconsin-Madison.
wparrott@uga.edu

Dr. Sheila Ochugboju is the Executive Director of the Alliance for Science. She is a futurist, international development expert, and communication specialist who has been working in research science and international development for more than 15 years. In addition to senior management roles in Kenya, Ghana and Nigeria, she has worked with international think tanks, various United Nations agencies, multilateral institutions and philanthropic organizations across Europe, Africa and Asia. She received her Ph.D. in plant biochemistry from the University of London and completed a post-doctoral research fellowship in baculovirus expression at the University of Oxford.
so354@cornell.edu

Dr. LaKisha Odom is the Scientific Program Director at the Foundation for Food & Agriculture. She is committed to promoting the use of innovative science and interdisciplinary thinking to tackle today's complex challenges in food and agriculture. LaKisha is also dedicated to cultivating increased diversity in a new generation of food and agriculture scientists. She previously worked with the US EPA in the Office of Research and Development and the Office of Solid Waste and Emergency Response's Brownfield's Redevelopment Program. LaKisha was also a CREATE-IGERT fellow at Tuskegee University and a researcher at Teagasc Research facility in Carlow, Ireland. She earned her doctorate in integrative biosciences from Tuskegee University.
lodom@foundationfar.org

Sarah Goldberg is the Director of Communications & Legislative Affairs with the Foundation for Food & Agriculture. She is a food enthusiast, policy analyst, and communications specialist. She previously worked as a program analyst for the Supplemental Nutrition Assistance Program (SNAP) at the US Department of Agriculture. Sarah also spent six years bolstering domestic food and agricultural policy, tropical deforestation policy and international climate policy as a press secretary at the Union of Concerned Scientists (UCS). She earned a Master of Public Policy from George Washington University.
sgoldberg@foundationfar.org

Modesta Nnedinso Abugu is a Ph.D. student in the Horticultural Sciences Department at North Carolina State University. Before moving to the US for her graduate studies, Modesta was the Program Assistant for the Open Forum on Agricultural Biotechnology (OFAB), Nigeria Chapter, where she engaged policymakers, the media, scientists, and other stakeholders on the potential of agricultural biotechnology in promoting food security. She was also part of the inaugural cohort of Alliance for Science Global Leadership Fellows program at Cornell University in 2015. She now helps to train other cohorts on grassroots organizing and strategic communications. She is also a fellow of the AgBioFEWS, an NSF-funded program that examines the science, policy, and public engagement impacts of agricultural biotechnology on food, energy, and water.
nnedi02@gmail.com

Nicholas Karavolias is a Ph.D. candidate at UC Berkeley where he studies rice stomatal developmental genetics and physiology using gene editing and conventional genetics. Prior to starting his graduate work Nicholas graduated from Cornell University with a BS in Agricultural Sciences where his research focused on quantitative genetics in rice for aluminum tolerance. He is also a Rockey FFAR Fellow. Nicholas is passionate about the ways that technology can promote food security and equity. His current work explores the use of gene editing for climate change in agriculture.
nicholas.karavolias@berkeley.edu

Luis Ventura-Martinez is a biologist at the Faculty of Sciences at the National Autonomous University of Mexico (UNAM) with an Academic Stay at the Department of Biotechnology and Bioengineering at the Research Center and Advanced Studies of the National Polytechnic Institute in Mexico (IPN). He has expertise in biosafety, including the Mexican Regulatory Framework, and risk assessment, as well as in science communications. He is also a 2016 Alliance for Science Global Leadership Fellow and the AfS Mexico correspondent.
luis_ventura@ciencias.unam.mx

Joan Conrow is a communications consultant and managing editor of the Alliance for Science. She has extensive experience as a journalist and editor. Joan specializes in environmental issues, biotechnology, and agriculture, and is especially interested in how these highly charged topics are playing out globally. Joan has reported internationally, scripted and produced documentaries, contributed to academic publications, and authored travel guides. She also provides strategic communications consulting services.
jc2436@cornell.edu

PARTICIPANTS LIST

Devotha Mwazembe, Tuskegee University — dmwazembe6401@tuskegee.edu

Kerstin Joseph, Tuskegee University — kerstinjoseph1@gmail.com

Tamea Smith, Tuskegee University — Tsmith7005@tuskegee.edu

Dinesh Ghimire, West Virginia State University — DINESHGHIMIRE01@GMAIL.COM

Abdallah Hadimundeen, West Virginia State University — Habdallah@wvstateu.edu

Abigeal Adeyemi, West Virginia State University — aadeyemi3@wvstateu.edu

Sazaul Morshed Sazib, Tuskegee University — ssazib8315@tuskegee.edu

Nicole Mulen, Fort Valley State University — nmullen1@wildcat.fvsu.edu

Tequilla Moles, West Virginia State University — tmoles2@wvstateu.edu

Haseena A Polk, Tuskegee University — hpolk7027@tuskegee.edu

Amber Davenport, Fort Valley State University — adavenp6@wildcat.fvsu.edu

Jesse Potts, Tennessee State University — jpotts5@tnstate.edu

Oluwaseun Deborah Adeyemi, Tennessee State University — oadeyemi@tnstate.edu

Anita Scales, Tennessee State University — ascales3@my.tnstate.edu

Ashesh Basnet, Tennessee State University — abasnet@my.tnstate.edu

Candice Gresham, Tennessee State University — chaymong@my.tnstate.edu

Carissa Jackson, University of Maryland Eastern Shore — cljackson3@umes.edu

Adrianne Brown, Tuskegee University — abrown9633@tuskegee.edu

Antonio Junior, University of Maryland Eastern Shore — aajunior@umes.edu

Pallavi Rathore, Tennessee State University — pallavirathorepau@gmail.com

Harpreet Kaur, Tennessee State University — hkaur1@tnstate.edu

Priya Thapa, Tennessee State University — PTHAPA@MY.TNSTATE.EDU

Kajol Pradhan, Tennessee State University — kpradhan@tnstate.edu

Gabrielle Johnson, University of Maryland Eastern Shore — gajohnson@umes.edu

Antoinette Bradley, Tuskegee University — abradley2621@tuskegee.edu

Tori McGuire, Tuskegee University — tmcguire5081@tuskegee.edu

Jacob Banafo Annan, Southern University A&M College — jacob.annan@sus.edu

Chinedu Ahuchaogu, University of Maryland Eastern Shore — cahuchaogu@umes.edu

Ian Peter Busuulwa, University of Berkeley — ianpeterbusuulwa835@gmail.com

Cristina Nieto, INIA-CSIC — cristina.nieto@inia.es

WORKBOOK

How to use this workbook

Please refer to this gene editing messaging kit as you develop your messages and work on the breakout activities. Messages about gene editing should focus on practical applications, both in agriculture and the wider world.

General Message Examples:

▶ Producing more food for those who face hunger and climate challenges

▶ Protecting the environment by creating enzymes and microbes that degrade plastic

▶ Lowering food costs

▶ Developing crops for biofuels that can reduce the use of fossil fuels

▶ Developing crops resistant to drought, disease, and insects

▶ Improving animal welfare

Specific Message Examples:

Environmental benefits

▶ **Reducing fertilizer use:** Scientists are using gene editing to help cereal crops, like wheat, rice, millet, etc., fix their own nitrogen from the soil, like beans do. This could eventually **replace their need for nitrogen from chemical fertilizers.**

▶ **Controlling plastic pollution: Researchers are using gene editing to engineer an enzyme that accelerates the degradation of plastics, helping to address the persistent global problem of plastic pollution.**

▶ **Greener sugar cane: Scientists are using gene editing to fine tune sugar cane. This will help reduce the environmental impact of growing sugar cane, which is used to make bioethanol for biofuels and plastic that is 100% recyclable.**

Practical and crop specific benefits

▶ **Disease-resistant banana:** Bananas are an important food and cash crop for much of Africa. But various diseases kill the trees. Growing bananas that are gene-edited to resist diseases **supports food security and farmers' livelihoods.**

▶ **Healthier chocolate: C**acao is the source of chocolate. Scientists in Columbia are **using gene editing to alter the root system of the cacao plant, so it doesn't absorb heavy metals from the soil, resulting in healthier chocolate**

▶ **Drought-tolerant wheat: Wheat is one of the world's most important food crops. But the droughts caused by climate change are reducing yields. Wheat that has been gene-edited to tolerate drought can reduce water use and survive in dry conditions, ensuring the continued production of this staple crop.**

▶ **Faster-growing fish:** Japan has approved two types of fish that were gene-edited to grow faster. They can help reduce food prices because they can reach market weight faster on the same amount of feed, **lowering production costs.**

KEY FINDINGS
Interests and concerns

People are interested in learning about the role of gene editing in:

- Making food more nutritious
- Improving animal welfare
- Reducing pesticide use
- Reducing water use

Those who are **initially negative** about gene editing are:

- Worried about safety concerns and/or want more information
- Concerned that it is not natural and/or could be misused

PEOPLE WANT TO KNOW THAT GENE EDITING IS MAKING A POSITIVE DIFFERENCE BY:

- ✓ Producing more food for those who face hunger and climate challenges
- ✓ Protecting the environment by creating enzymes and microbes that degrade plastic
- ✓ Lowering food costs
- ✓ Developing crops for biofuels that can reduce the use of fossil fuels
- ✓ Developing crops resistant to drought, disease, and insects
- ✓ Improving animal welfare

WHO IS YOUR AUDIENCE?
The importance of directing your message

POSITIVE

These are people who can help to spread the good word about gene editing if they are given more information and support. They are important potential allies.

NEUTRAL

These are people who haven't made up their minds. They can potentially be swayed to support gene editing with the right information and messaging.

RESISTANT

These are people who have made up their minds to oppose gene editing. It's unlikely outreach and education will change their views.

PEOPLE WANT TO BE REASSURED THAT GENE EDITING IS CREATING A HEALTHIER ENVIRONMENT BY:

✓ Cutting the use of pesticides and fertilizers that could get into the food and water supply

✓ Helping agriculture conserve water

✓ Using microbes to degrade plastics in the environment

✓ Reducing our dependence on foreign and domestic fossil fuels through the development of biofuels

WHO SHOULD DELIVER GENE EDITING MESSAGES?

Experts

✓ Scientists working in this field of study

Those with first-hand experience

✓ Farmers

✓ Chefs

EXAMPLES
Environmental benefits of gene editing

REDUCING FERTILIZER USE

Scientists are using gene editing to help cereal crops, like wheat, rice, millet, etc., fix their own nitrogen from the soil, like beans do. This could eventually **replace their need for nitrogen from chemical fertilizers.**

CONTROLLING PLASTIC POLLUTION

Researchers are using gene editing to engineer an enzyme that accelerates the degradation of plastics, helping to **address the persistent global problem of plastic pollution**.

GREENER SUGAR CANE

Scientists are using gene editing to fine tune sugar cane. This will help reduce the environmental impact of growing sugar cane, which is used to make bioethanol for biofuels and **plastic that is 100% recyclable.**

WHAT DO PEOPLE WANT TO KNOW ABOUT GENE EDITING?

✓ Is gene editing safe?

✓ OK to eat?

✓ What sort of testing is done?

✓ How is gene editing regulated?

✓ How long has it been used?

✓ What are the downsides of gene editing?

✓ How will they know if a product is gene-edited?

HOW DO PEOPLE WANT TO LEARN ABOUT GENE EDITING?

MOST PREFERRED

✓ Compelling video stories about scientists and farmers developing and using gene edited products

✓ Human interest stories about gene editing on radio and TV

✓ Information and free samples in grocery stores

✓ Virtual reality tours of labs and farms

LESS PREFERRED

✓ Apps

✓ Social media

✓ Infographics

✓ Videos about help being provided to other countries

EXAMPLES
Practical and positive applications of gene editing

DISEASE-RESISTANT BANANA
Bananas are an important food and cash crop for much of Africa. But various diseases kill the trees. Growing bananas that are gene-edited to resist diseases **supports food security and farmers' livelihoods.**

DROUGHT-TOLERANT WHEAT
Wheat is one of the world's most important food crops. But the droughts caused by climate change are reducing yields. Wheat that has been gene-edited to tolerate drought can **reduce water use and survive in dry conditions,** ensuring the continued production of this staple crop.

HEALTHIER CHOCOLATE
Cacao is the source of chocolate. Scientists in Columbia are using gene editing to alter the root system of the cacao plant, so it **doesn't absorb heavy metals from the soil,** resulting in healthier chocolate.

FASTER-GROWING FISH
Japan has approved two types of fish that were gene-edited to grow faster. They can **help reduce food prices** because they can reach market weight faster on the same amount of feed, lowering production costs.

GMOs AND GENE EDITING

People still have reservations about GMOs. Nearly two-thirds question the safety of eating GMO foods.

✓ Briefly explaining the differences between gene editing and GMOs slightly decreases the number of people feeling very positive, though many want to learn more about the differences

✓ Explaining the possible benefits and applications of gene editing increases positive sentiment and decreases those who feel negative

✓ Bringing up differences between gene editing and GMOs even briefly can be challenging as even the mention of GMOs can reduce positive sentiment about gene editing

DO...

1 EMPHASIZE POSITIVE PRACTICAL APPLICATIONS

Help people understand how gene editing can make a beneficial difference in their daily lives and the world we live in. Position gene editing as offering solutions to pressing global problems by using real life examples.

2 ENGAGE SCIENTISTS AND FARMERS AS MESSENGERS

People want to hear from the scientists who are developing gene-edited crops and livestock and the farmers who are raising them. Humanize the message by amplifying why scientists and farmers are choosing to work with gene editing.

3 USE STORYTELLING AS A MEDIUM

Tell a story about gene editing. Why are scientists devoting their lives to this research? Why are farmers excited about gene-edited options? Why are chefs choosing to cook with these foods? Keep it real, personal, and authentic.

4 ADDRESS QUESTIONS AND CONCERNS

Modern consumers are skeptical and savvy. When presented with all positives, they want to know the negatives. Be honest about limitations and flaws in the technology.

DON'T...

1 MIX GENE EDITING AND GMOS

Don't compare editing and GMOS unless asked. Keep your messaging focused on gene editing and its benefits. There's no need to introduce the baggage around gene editing into this conversation!

2 THROW GMOS UNDER THE BUS

GMOs are still an important plant breeding tool. And gene editing can also be used to create a GMO. So don't demonize transgenics to build support for gene editing.

3 HIDE YOUR USE OF GENE EDITING

People want to know if the food they're eating has been gene-edited. Though labeling isn't required for some gene-edited products, there's no need to hide its use.

4 DEPEND SOLELY ON SOCIAL MEDIA FOR MESSAGING

People don't want to learn about gene editing only from social media. You'll be missing your audience if you rely too heavily on social platforms to share your messaging.

5 USE GE AS AN ABBREVIATION FOR GENE EDITING!

That confuses it with genetic engineering.

Area of research (or work) you want to communicate about

....

Your Goal
(What do want to get from your communication?)

....

Audience (Who)

....

Message (What)

....

Platform(s) (Where?)
Tip: you can include some inter-personal platforms such as one-on-one meetings (in-person or virtual) e.g conferences, workshops, webinars etc.

A good story has a structure, plot, conveys values and shows rather than tells. Please use the following guides to develop your story. It could be on your research, someone else's research or a personal experience that motivated you to be a science communicator.

What is the plot of your story?

....

What challenge and/or positive experience did you encounter?

....

What choice did you make about it?

....

What was/is the outcome?
(What did it teach/expect to teach you?)

....

What is your call to action?
(What would you like your listener to do?)

....

Show us your story

Examples:
Telling: "You are welcome," she said warmly.

Showing: "You are welcome," she said with a smile as she wrapped me in a huge hug.
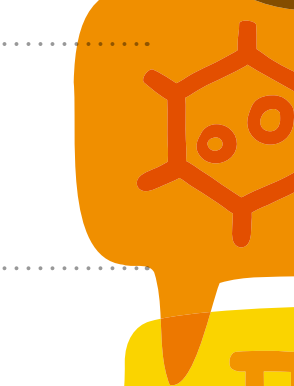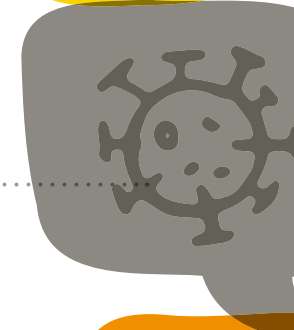
Objective/Goal: _____

Audience (including channel): _____

Core message (Think of the bigger picture of what you are doing/hope to achieve with your communication outreach and write it down):

_____
_____
_____

List ideas that come to mind when you think of the "core message/goal":
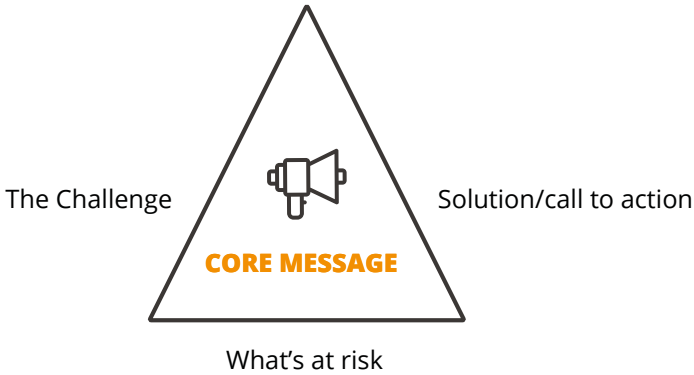
What is the challenge your work addresses?

1) _____

2) _____

3) _____

If nothing changes, what is at risk?

1) _____

2) _____

3) _____

What is the solution? What do you want your audience to do to bring about a desired solution? (Call to action)

1) _____

2) _____

3) _____

The Challenge   Solution/call to action

CORE MESSAGE

What's at risk

Breakout 4:
Developing an idea
for an opinion piece

Communication objective/goal: _____
_____

Audience (including platform):_____
_____
_____

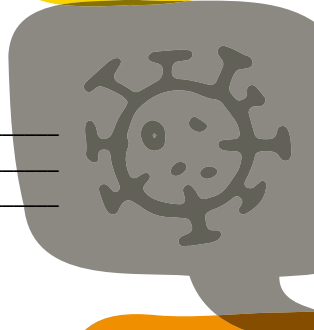**What is the problem?** (Think of the bigger picture of what is
happening and what could go wrong if something is not done)

_____
_____
_____
_____

If nothing changes, what is at risk?
Include the stakeholders affected and how it does or will affect them

_____
_____
_____
_____

What solution(s) are you proposing?
_____
_____
_____
_____
_____
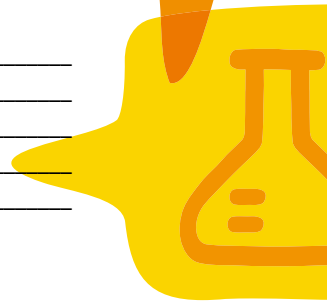
What is your call to action?
_____
_____
_____
_____
_____

Work in groups or individually to develop a webinar that aligns with your communication goal.

Your communication goal
(What do want to get from your communication?)

Audience
(Who is your target audience?)
Think of the stakeholders you want to reach and engage through your webinar. Stakeholders can include farmers, students, scientists, consumers, policy makers, activists, etc.

Catchy title
***Think of buzz words that will attract and engage your audience

Examples:
▶ Who killed the bees? The impact of biotechnology on the environment

▶ DNA in your food: The science of genetic engineering

Platform(s) (Where?)
You can include some inter-personal platforms such as one-on-one meetings (in-person or virtual) e.g., farmer field days, workshops, seeing-is-believing tours, webinars, etc.
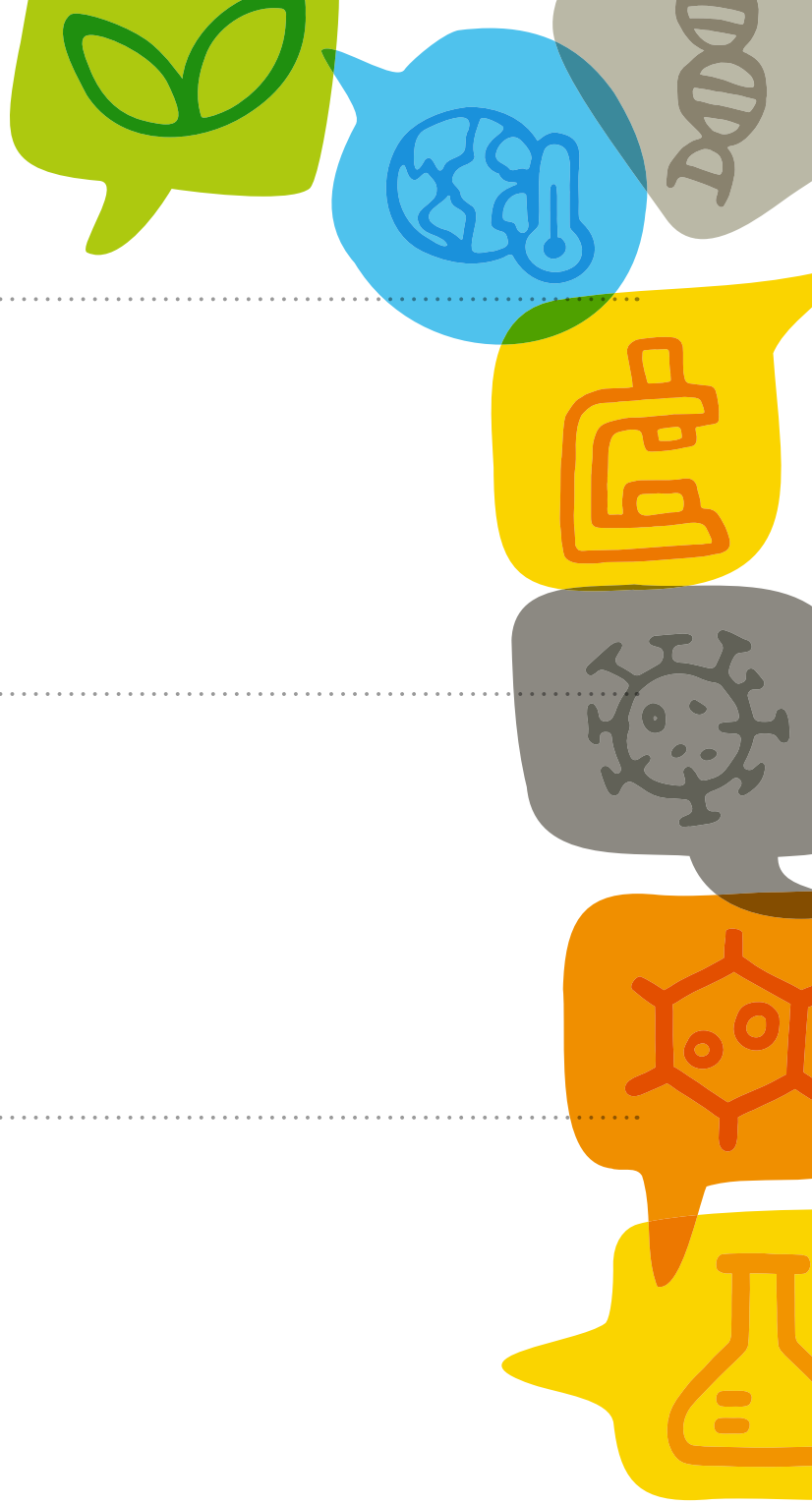
Format
Will it be a single presenter
format, a Q&A interview with a
guest expert, or a presentation
with several panelists and a
moderator?

Panelists/speakers
Based on the format decided,
who will you invite to give a
talk? It could be you or your
colleagues. (Please note the
names for share out)

Moderator
Who will moderate this panel? In
the case of AfS Live, an staff will
moderate.

Date/time:
What date are you looking
at? Consider a time when the
majority of your stakeholders
can attend the webinar and have
done some work for the day.

Breakout 6:
Practicing interview techniques

Write down draft points for your radio/TV interview:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
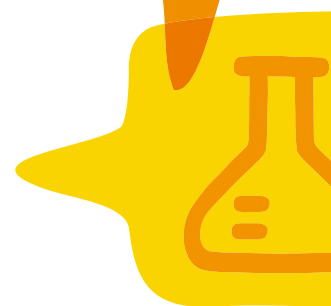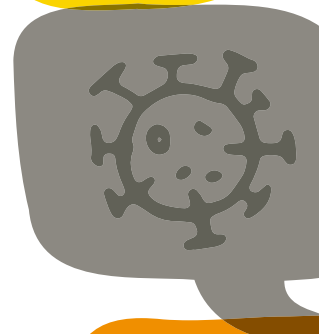_____
_____
_____
_____
_____
_____
_____

What activity are your proposing upon your return? Some examples include writing a blog post, opinion piece, conducting a community engagement event, hosting a webinar or podcast and social media engagement

Activity 1

Activity 2

SPEAKING SCIENCE

FROM SNPS TO STORIES:

AMPLIFYING UNDER-REPRESENTED VOICES IN AGRICULTURAL GENE EDITING

@ScienceAlly

/ScienceAlly

allianceforscience.cornell.edu

FOUNDATION FOR FOOD & AGRICULTURE RESEARCH

TUSKEGEE UNIVERSITY

ALLIANCE FOR SCIENCE