Title of Research Study: Integration of Science Outreach into the Academic Research Enterprise: Data-Driven Perspectives

### Investigators:

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**Key Information:** The purpose of this study is to examine how science outreach currently exists within academic research institutions at the national level. You will be asked to complete an online survey which will take approximately 15 minutes to complete. There are no risks or benefits associated with taking this survey. All information collected is completely anonymous.

Why am I being asked to take part in this research study? You are being asked to take part in this research study because you are a graduate student, postdoctoral researcher, faculty, administration, or staff at a college, university, or research institution.

What should I know about a research study? Participation is voluntary, and you may discontinue participation at any time by closing your browser or leaving this webpage.

What happens to the information collected for the research? This survey is being hosted by Qualtrics and involves a secure connection. Terms of service addressing confidentiality may be viewed at http://www.qualtrics.com/research-suite/. No personally identifiable information will be collected.

#### What else do I need to know?

You will not receive compensation of any kind for participating in this study.

**Who can I talk to?** If you have questions, concerns, or complaints talk to the Principal Investigators, Dr. Nicole C. Woitowich at 312-503-1385 or Dr. Jeanne Garbarino at 212-327-7418. If you have any concerns about your experience while taking part in this research study, you may contact The Rockefeller University Institutional Review Board (IRB) at 212-327-8408. You can also speak with members of the Northwestern University IRB at 312-503-9338.

#### Consent

If you want a copy of this consent for your records, you can print it from the screen.

By completing this survey, you are consenting to participate in this study.

**End of Block: Consent Form** 

Start of Block: Demographics
Do you study or work in a science, technology, engineering or math (STEM) field?
○ Yes
○ No
Skip To: End of Survey If Do you study or work in a science, technology, engineering or math (STEM) field? = No
Do you study or work at a 2- or 4-year college, university, or academic research institution within the United States?
○ Yes
○ No
Skip To: End of Survey If Do you study or work at a 2- or 4-year college, university, or academic research institution with = No
What is your primary field of study?
Astronomy
O Biological or Life Sciences
Chemistry
O Computer Science and Technology
Engineering
O Mathematics
Physics
O Geosciences
O Social Sciences
Other

Please select the option which best describes your college, university, or research institution:
Community or Junior College
O Primarily Undergraduate College or University
Research Intensive College or University
Historically Black College or University
Tribal College or University
Religiously-affiliated College or University
Minority-Serving Institution
Other
O I'm not sure
Page Break
Would you be willing to provide the zip code of where your campus is located?
○ No
Invalid Logic Click Here to Edit Logic
O Yes
Page Break —————

What is your current gender identity?
O Male
○ Female
Gender non-binary or gender non-conforming
O Prefer not to say
O Prefer to self-describe
Which group most accurately describes your race?
American Indian or Alaska Native
Asian or Pacific Islander
O Black or African American
O White
O Multiracial
O Prefer to self-describe
O Prefer not to say
Which group most accurately describes your ethnicity?
O Hispanic or Latino/a/x
O Not Hispanic or Latino/a/x

Which of the following best describes your sexual orientation?
O Heterosexual
CLesbian
○ Gay
○ Bisexual
○ Asexual
○ Pansexual
O Prefer to self-describe
O Prefer not to say
Please select your age range
O 18 - 24 years old
25 - 34 years old
○ 35- 44 years old
O 45 - 54 years old
○ 55 - 64 years old
O 65 - 74 years old
O 75 years or older
O Prefer not to say
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Select the highest degree you have obtained:
O BS or BA
○ MS or MA
○ PhD
$\bigcirc$ MD
Other professional degree
O Prefer not to say
What is your current role in academia?
○ Graduate Student
O Postdoctoral Fellow
○ Faculty
○ Staff
Other
Display This Question:
If What is your current role in academia? = Faculty
Please select your faculty track:
O Tenure track
Non-tenure track (ex. Research faculty, Clinical Instructors, Lecturers)
Other

Display This Question:
If Please select your faculty track: = Tenure track
Please select your academic rank:
Assistant Professor
Associate Professor
O Professor
Do you hold a leadership position within academia? Examples include: Department Chair, Dean, Provost, or President
O Yes
○ No
Ounsure
End of Block: Demographics
Start of Block: Science Outreach Experience
For the next series of questions, we use the term "science outreach" to broadly represent the different types of interactions between scientists and non-scientists. You might refer to this as public engagement with science, informal science education, or science communication.
On a scale of 1-10, how comfortable would you be participating in a science outreach activity today?  1 2 3 4 5 6 7 8 9 10
Level of comfort (1 not at all comfortable - 10 being very comfortable)

O I do no	t participate in science outreach activities
Rarely	(1 - 2 times a year)
O Somet	imes (3 -5 times a year)
Often (	6+ times a year)
O Always	s - It is a part of my job description / I consider myself a science outreach professional
Display This Q  If How ofte outreach activit	en do you participate in science outreach activities? != I do not participate in science
	science outreach activities do you participate in? Check all that apply:
	Visiting or Hosting K-12 Students
	Science fairs
	Public talks or lectures
	Podcasts
	Blogs or Newsletters
	Social media (Twitter, Facebook, Instagram)
	Website or Wiki Curation
	Science policy or advocacy
	Other

How often do you participate in science outreach activities?

Have you ever	received any formal training in science outreach?
O Yes	
O No, I h	ave not
O No, bu	t I would like to
O Unsure	
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In your opinion Check all that a	: Who <i>most often</i> participates in science outreach at your college, university, or institution? apply.
	Undergraduate Students
	Graduate Students
	Postdoctoral Fellows
	Faculty Members
	Staff
	Other
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Check all that	apply.
	Men
	Women
	Gender non-binary or non-conforming individuals
	White (non-hispanic) people
	Persons of color
	LGBTQIA+ identifying
	People under the age of 40
	People over the age of 40
	Native english speakers
	Non-native english speakers
	Other
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**Start of Block: Science Outreach Value** 

Please select your agreement with the following statement: Science outreach is a tool for scientists to...

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Educate or inform non-scientists about research findings	0	0	0	0	0
Establish relationships with their community	0	0	0	0	0
Create interest in STEM careers	0	$\circ$	0	0	0
Develop transferrable skills	0	$\circ$	$\circ$	$\circ$	$\circ$
Obtain research funding	0	$\circ$	$\circ$	$\circ$	$\circ$
Maintain research funding	0	0	0	$\circ$	$\circ$

Please select your agreement with the following statement: *Science outreach is a tool for colleges, universities, or institutions* to...

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Educate or inform non-scientists about research findings	0	0	0	0	0
Create interest in STEM careers	0	$\circ$	$\circ$	0	0
Recruit students	0	$\circ$	$\circ$	$\circ$	$\circ$
Recruit faculty members	0	$\circ$	$\circ$	$\circ$	$\circ$
Address issues pertaining to diversity and inclusion	0	$\circ$	0	0	0
Promote cultural competency	0	$\circ$	$\circ$	$\circ$	0
Establish relationships with their community	0	0	0	0	0
Attract philanthropic donors	0	0	0	0	0
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Please select the best answer for each of the statements below:

	Yes	No	Unsure	Not Applicable
Science outreach is valued by my peers	0	0	0	0
Science outreach is valued by my supervisors	0	0	0	$\circ$
Science outreach is valued within my department	0	0	$\circ$	$\circ$
Science outreach is valued by my institution	0	$\circ$	0	$\circ$
Science outreach is valued by the scientific community	0	$\circ$	0	$\circ$
on a scale of 1 - 10,	how much do you perso	nally value sciend	ce outreach? 3 4 5 6	7 8 9 10

**Start of Block: Science Outreach Motivations / Limitations** 

## Display This Question:

If How often do you participate in science outreach activities? = I do not participate in science outreach activities

For the next series of questions, please indicate if the statement is true, false, or not applicable:

	True	False	Not Applicable
I am not interested in participating in science outreach	0	0	0
I do not have time to participate in science outreach	0	$\circ$	$\circ$
I do not have funding to participate in science outreach	0	$\circ$	$\circ$
My supervisor(s) would not approve of my participation in science outreach	0		0
If How often do you p	articipate in science outread	ch activities? = I do not p	participate in science
outreach activities  You indicated that you do	articipate in science outread not participate in science of not participate in science of	utreach. Would you be v	
If How often do you poutreach activities  You indicated that you do	not participate in science of	utreach. Would you be v	

# Display This Question:

If How often do you participate in science outreach activities? != I do not participate in science outreach activities

For the next series of questions, please indicate if the statement is true, false, or not applicable: I participate in science outreach...

	True	False	Not Applicable
because it is fun and enjoyable	0	0	0
to share my research findings with non-scientists	0		$\circ$
for professional development	0	$\circ$	$\circ$
because of grant/funding requirements	0	$\circ$	0
for socio-cultural or political reasons	0	0	0
to serve as a role model or mentor	$\circ$	$\circ$	$\circ$
to improve diversity, equity, and access to STEM		$\circ$	$\circ$

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If How often do you participate in science outreach activities? != I do not participate in science outreach activities

What are some of the challenges that you face when trying to conduct or participate in science outreach

activites? Please select all that apply: Lack of time Lack of funding Lack of support from my peers Lack of support from my department Lack of support from my supervisors Lack of other essential resources (ex. equipment, venue, transportation) Lack of partners or collaborators (ex. school districts, teachers, museums, organizations) Public disinterest interest science Communication or language barriers Other (please specify)

# Display This Question:

If How often do you participate in science outreach activities? != I do not participate in science outreach activities

Optional Question:
I participate in science outreach because [Fill in the blank]
End of Block: Science Outreach Motivations / Limitations
Start of Block: Faculty / PI
Are you aware of outreach activities or initiatives at your institution?
○ Yes
○ No
O Unsure
O Not Applicable
Are science outreach activities valued by your tenure and promotion committee?
○ Yes
○ No
Ounsure
O Not Applicable

Display This Question:
If Do you support graduate student or post-doctoral fellows' participation in science outreach activ = No
You indicated that you do not support graduate student or post-doctoral fellows' participation in science outreach. Would you be willing to provide us with your thoughts on the topic?
○ No
O Yes
Do you think science outreach-focused professions are valid career options for STEM trainees?
○ Yes
○ No
O Unsure
O Not Applicable
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If Does your institution have a dedicated staff, office, or department which coordinates science out...

You indicated that your institution has a dedicated staff, office, or department which coordinates science outreach activities.

	Yes	No	Unsure	Not Applicable
Is effective at conducting or supporting science outreach activities or initiatives	0	0	0	0
Has a positive impact on institutional culture	$\circ$	0	$\circ$	0
Has a positive impact on relationships with local community members	0	0	0	0
Has a positive impact on donor or alumni relations	0	0	$\circ$	$\circ$

= Yes

I have collaborated with the science outreach staff, office, or department at my institution:

O Yes
○ No
O Unsure
O Not Applicable

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Please select the <i>primary</i> source of your research funding:
National Science Foundation
National Institutes of Health
O Private foundations or organizations
Institutional or departmental funds
O Philanthropic funding
Do you support or oppose broader impact requirements for research funding mechanisms?
O Strongly oppose
O Somewhat oppose
O Neutral
O Somewhat favor
○ Strongly favor
I am unfamiliar with broader impact requirements
End of Block: Faculty / Pl
Start of Block: Science Outreach Professionals
You indicated that science outreach is a part of your job description or that you consider yourself to be a science outreach professional. Is this correct?
○ Yes
○ No

How long have you been employed as science outreach professional?
C Less than 1 year
O 1-2 years
O 2-5 years
○ 5-9 years
O 10 or more years
Are you considered a full time or part time employee?
O Full time
O Part time
O Unsure
Other
Please select your salary range:
O Less than \$25,000
\$25,000 to \$34,999
\$35,000 to \$49,999
\$50,000 to \$74,999
\$75,000 to \$99,999
\$100,000 to \$149,999
\$150,000 or more

to 10, how sati	sfied are you	with your curre 1	nt level of comp 2 3 4	ensation? 5 6 7	8 9 10
				-	_
el you are value Not at all valued	d by the follow Slightly valued	ving groups: Moderately valued	Very valued	Completely valued	Not Applicable
0	0	0	0	0	0
0	$\circ$	0	$\circ$	0	0
0	0	0	0	0	0
0	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
0	0	$\circ$	$\circ$	$\circ$	$\circ$
	isfaction (1 being 10 being el you are value Not at all	isfaction (1 being not satisfied 10 being completely satisfied 10 being not satisfied 10 being completely satisfied 10 bei	isfaction (1 being not satisfied at all, 10 being completely satisfied)  el you are valued by the following groups:  Not at all Slightly Moderately	isfaction (1 being not satisfied at all, 10 being completely satisfied)  el you are valued by the following groups:  Not at all Slightly Moderately	isfaction (1 being not satisfied at all, 10 being completely satisfied)  el you are valued by the following groups:  Not at all Slightly Moderately Vanyagued Completely

How easy or difficult is it to obtain the resources that you need to conduct science outreach at your institution?
C Extremely easy
○ Somewhat easy
Neither easy nor difficult
O Somewhat difficult
Extremely difficult
How easy or difficult was it for you to find employment as a science outreach professional?
C Extremely easy
○ Somewhat easy
O Neither easy nor difficult
O Somewhat difficult
Extremely difficult
In your current role as a science outreach professional, do you view yourself as a scientist?
○ Yes
○ No
Ounsure
O Not applicable
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If In your current role as a science outreach professional, do you view yourself as a scientist? = No

You indicated that you do not view yourself as scientist. Would you be willing to share why?
○ No
O Yes
The next question is optional but we would greatly appreciate your response:  Why did you decide to pursue a career in science outreach -or- how did you end up in your current role as a science outreach professional?
<del></del>
<del></del>
End of Block: Science Outreach Professionals
Start of Block: Leadership
You indicated that you hold a leadership position or role within your institution. Is this correct?
○ Yes
○ No

Please select your agreement with the following statements:

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Not Applicable
I support science outreach activities or initiatives at my institution	0	0	0	0	0	0
I think that institutional support for dedicated science outreach personnel is a priority	0	0	0	0	0	0
I think that institutional support for a dedicated science outreach office is a priority	0	0	0	0	0	0
I have made direct efforts to establish a centralized science outreach program at my institution	0	0	0	0	0	0

**End of Block: Leadership**