

# BioMADE - Continuation 1

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## Start of Block: Consent

Q1 Dear Participant, My name is Michael Cacciatore and I am a faculty member in the Advertising and Public Relations Department at the University of Georgia. I am inviting you to take part in a research study. I am doing research on public opinions of science. I want to better understand how citizens form opinions about science. This project was made possible with the support of The Bioindustrial Manufacturing and Design Ecosystem (BioMADE). I am looking for adults (18 years or older) who live in the US. If you agree to take part in this study, you will be asked to read a brief description of a relatively new form of science that you may not know much about and answer questions about your opinions toward that science topic, as well as several other science topics. There will be 1 survey session. The session will be approximately 15 minutes long and will take place on your own computer, tablet or phone. Participation is voluntary. You can refuse to take part or stop at any time without penalty, although Qualtrics ultimately determines at what point of withdrawal you will or will not receive your compensation, which will be paid according to your own contract with Qualtrics. Your decision to participate will have no impact in your participation or in anything else related to your involvement with the Qualtrics program. It is possible that some questions may make you uncomfortable. You can skip these questions if you do not wish to answer them. Your responses may help us understand the future of scientific innovation in the United States. Research records will be labeled with study IDs that are linked to you by a separate list that includes your name. This list will be destroyed once we have finished collecting information from all participants and received the data file from Qualtrics. Your confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties. The information may be used or shared after the identifiers have been removed, for example with other researchers and/or for future studies without additional consent. If you are interested in participating or have questions about this research, please feel free to contact me at, mcacciat@uga.edu. If you have any complaints or questions about your rights as a research volunteer, contact the IRB at 706-542-3199 or by email at IRB@uga.edu. Please keep this letter for your records. Sincerely, Michael Cacciatore

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Q2 I am at least 18 years old, live in the U.S., and agree to participate in this study. I have read the consent form above.

☐ Yes (1)

☐ No (2)

*Skip To: End of Block If Q2 = 2*

Page Break

Q3 Do you currently live in the United States?

☐ Yes (1)

☐ No (2)

*Skip To: End of Block If Q3 = 2*

Page Break

Q4 In what region of the United States do you currently reside?

☐ Midwest (IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI) (1)

☐ Northeast (CT, MA, ME, NH, NJ, NY, PA, RI, VT) (2)

☐ South (AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV) (3)

☐ West (AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY) (4)

Page Break

Q5 To start, we would like to ask you a few questions that help us to reach people of different ages, genders, and so on. Once again, these responses will only be used for academic research purposes.



Q6 What year were you born?

▼ 2007 (2007) ... 1900 (1900)

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Page Break

Q7 With which gender do you identify?

- ☐ Male (1)
- ☐ Female (2)
- ☐ Non-binary / third gender (3)
- ☐ Prefer not to say (4)

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Page Break

Q8 Are you Spanish, Hispanic, or Latino?

- ☐ Yes (1)
- ☐ No (2)

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Page Break

Q9 Please choose one or more races that you consider yourself to be.

- ☐ American Indian or Alaska Native (1)
- ☐ Asian (2)
- ☐ Black or African American (3)
- ☐ Native Hawaiian or Pacific Islander (4)
- ☐ White (5)
- ☐ Other (6)

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Page Break

Q10 What is the highest level of education you have completed?

- ☐ Less than high school (1)
- ☐ High school graduate (2)
- ☐ Some college (3)
- ☐ 2-year degree (e.g., associate degree) (4)
- ☐ 4-year degree (e.g., bachelors degree) (5)
- ☐ Post-graduate degree (e.g., graduate school, JD, MD, PhD) (6)

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Page Break

Q11 And what was your total household income before taxes during the past 12 months?

- ☐ Less than \$25,000 (1)
- ☐ \$25,000 to \$49,999 (2)
- ☐ \$50,000 to \$74,999 (3)
- ☐ \$75,000 to \$99,999 (4)
- ☐ \$100,000 to \$124,999 (5)
- ☐ \$125,000 to \$149,999 (6)
- ☐ \$150,000 to \$174,999 (7)
- ☐ \$175,000 to \$199,999 (8)
- ☐ \$200,000 or more (9)

End of Block: Consent

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Start of Block: Pre-test Measures

Q12 Moving on, please tell us how **informed** you feel you are about...

	Not at all informed 1 (1)	2 (2)	3 (3)	Moderately informed 4 (4)	5 (5)	6 (6)	Very informed 7 (7)
Government or politics (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scientific research or discoveries (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New technologies (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entertainment or celebrities (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

Q13 Next, how much attention do you pay to science information on each of the following?

	No attention at all 1 (1)	2 (2)	3 (3)	A moderate amount of attention 4 (4)	5 (5)	6 (6)	A lot of attention 7 (7)
Newspapers (paper versions or online) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Television news (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Podcasts (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Streaming services (e.g., Netflix, Hulu, etc.) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social media (e.g., Facebook, Twitter (now X), YouTube, etc.) (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

Q14 Now, we want to know a little more about you. Please indicate the extent to which each of the following statements describe you.

	Does not describe me at all 1 (1)	2 (2)	3 (3)	Somewhat describes me 4 (4)	5 (5)	6 (6)	Very much describes me 7 (7)
I am interested in learning more about science. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science excites my curiosity. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy learning about science. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others ask me for my opinion on science topics. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My <b><u>family</u></b> sees me as a "science person." (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My <b><u>friends</u></b> see me as a "science person." (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15 And please indicate your level of agreement with each of the following statements about science.

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Science moves too quickly for my liking. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am concerned about the unforeseen impacts of scientific research. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science makes our lives easier and more comfortable. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because of science, there will be more opportunities for the next generation. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science is incompatible with my religious views. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe science and religion are at odds with each other. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Far too often, scientists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



attempt to  
play the role  
of God. (7)

Science  
removes the  
need for  
God. (8)

My religious  
views  
emphasize  
our  
responsibility  
to protect  
the planet.  
(9)

Science is  
one of the  
tools God  
gave us to  
protect the  
planet. (10)



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Page Break

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16 We'd also like you to think about scientists and the work they do. How much do you agree or disagree with the following statements?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Scientists know best what is good for the public. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scientists should do what they think is best, even if they have to persuade people that it is right. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important for scientists to get research done even if they displease people by doing it. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science is the best way that society has for producing reliable knowledge. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science is the best way to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

the world.  
(5)

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Page Break

Q17 Next, you will see a few statements about science. This helps us see how much information gets out to the public. Many people don't know the answers to these questions, but we'd be grateful if you would please answer every question, even if you're not sure what the right answer is. Could you tell us for each of the following statements to what extent you think it is true or false?

	Definitely false (1)	Likely false (2)	Likely true (3)	Definitely true (4)	Don't know (9)
The center of the earth is very hot. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All radioactivity is man-made. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electrons are smaller than atoms. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lasers work by focusing sound waves. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is the father's gene that decides whether the baby is a boy or a girl. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Antibiotics kill viruses as well as bacteria. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

Q18 Now, could you tell us for each of the following statements to what extent you think it is true or false?

	Definitely false (1)	Likely false (2)	Likely true (3)	Definitely true (4)	Don't know (9)
The scientific method produces results that are meant to be continually tested. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uncertainty is part of the scientific method. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We can identify facts that are unchanging through the scientific method. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The scientific method builds on previous knowledge. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evidence based on data is a key part of the scientific method. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The scientific method can be used to produce any conclusion the researcher wants. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19 Switching gears a little, let's turn to a specific science topic. Recently, there has been a lot of talk about a new scientific technology known as **biomanufacturing**. Overall, how informed would you say you are about biomanufacturing?

- ☐ Not at all informed1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ Moderately informed4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very informed7 (7)

Q20 Regardless of how informed you are, how informed do you think **other people** are about biomanufacturing?

- ☐ Not at all informed1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ Moderately informed4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very informed7 (7)

## Start of Block: Simple / Fabrics

Q21 On the next page, you will see a definition of biomanufacturing. You will be able to continue with the rest of the survey questions after viewing that definition. The button to advance the survey will appear after 20 seconds on the next page.

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Page Break

Q22 Biomanufacturing uses living things such as bacteria, yeast, and algae, to make goods with desired qualities. Example products of biomanufacturing include basic woven fabrics for clothing. Currently, these products are made through traditional manufacturing approaches that use raw materials that may not be easily replaced. At various points in the survey, hovering over or clicking on the term biomanufacturing will provide you with the above definition. However, this feature may not be able on some mobile devices.

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Q23 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

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Page Break

Q24 Please take a moment to write a few words or even a full sentence or two about the first thing that came to mind when you read the description of biomanufacturing.

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Page Break

Q25 How easy or difficult would you say the definition of biomanufacturing that you were provided was to understand?

- ☐ Very easy1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very difficult7 (7)

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Page Break

Q26 And how easy or difficult would you say that **most others** would find the definition of biomanufacturing that you were provided?

- ☐ Very easy1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very difficult7 (7)

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Page Break

Q27 As best you can recall, did the definition you saw contain each of the following terms or descriptors?

	Definitely <b><u>did not</u></b> contain this term 1 (1)	2 (2)	3 (3)	May have contained this term 4 (4)	5 (5)	6 (6)	Definitely <b><u>did</u></b> contain this term 7 (7)
"living things" (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"traditional" (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"easily replaced" (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"make goods" (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"qualities" (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"basic" (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"approaches" (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q28 Also, do you happen to recall the product that was used as an example for what biomanufacturing might be used to make? Please type it in the space below.

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Page Break



Q29 And please tell us the extent to which the **definition you just read...**

	Not at all 1 (1)	2 (2)	3 (3)	Somewhat 4 (4)	5 (5)	6 (6)	Very much 7 (7)
made you curious. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
captured your interest. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
captured your attention. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
made you want to know more. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30 And now that you know a little about biomanufacturing, how likely or unlikely are you to do each of the following as it relates to the topic?

	Not at all likely 1 (1)	2 (2)	3 (3)	Somewhat likely 4 (4)	5 (5)	6 (6)	Very likely 7 (7)
seek more information (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
watch a YouTube video (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
read an article (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
listen to a podcast (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
search for social media content (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q31 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Overall, I support research on biomanufacturing. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I support federal funding for biomanufacturing research. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I support state funding for biomanufacturing research. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think there are many likely benefits from biomanufacturing. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think there are many likely risks from biomanufacturing. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufacturing is morally acceptable. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would purchase products made through biomanufacturing. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

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Q32 How much more, if anything at all, would you be willing to pay for a product produced through biomanufacturing?

- ☐ None more money at all (1)
- ☐ 1-5% more (2)
- ☐ 6-10% more (3)
- ☐ 11-15% more (4)
- ☐ 16-20% more (5)
- ☐ 21+% more (6)
- ☐ I don't know (7)

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Page Break

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Q33 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Biomanufacturing sounds like an overall good thing for our world. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufacturing sounds too risky to pursue. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is best if the USA leads the way in biomanufacturing research. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is best if some other country leads the way in biomanufacturing research. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufactured products should be labeled. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q34 Continuing with biomanufacturing, how do you view the relationship between its risks and benefits?

- ☐ The risks strongly outweigh the benefits<sup>1</sup> (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ The risks and benefits are about equal<sup>4</sup> (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ The benefits strongly outweigh the risks<sup>7</sup> (7)

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Page Break

Q35 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
I would be willing to let scientists have complete control over the future of biomanufacturing. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I had my way, I would let scientists have any influence over decisions about biomanufacturing that are important to me. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see no need to keep an eye on scientists who are involved in biomanufacturing. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be comfortable giving a scientist a biomanufacturing task or problem that is critical to me, even if I could not monitor their actions. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Simple / Fabrics

Start of Block: Complex / Fabrics

Q36 On the next page, you will see a definition of biomanufacturing. You will be able to continue with the rest of the survey questions after viewing that definition. The button to advance the survey will appear after 20 seconds on the next page.

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Page Break

Q37 Biomanufacturing uses living biological systems such as bacteria, yeast, and algae, to construct merchandise with desired attributes. Example products of biomanufacturing include rudimentary woven fabrics for clothing. Currently, these products are made through conventional manufacturing techniques that use raw materials that may not be renewable. At various points in the survey, hovering over or clicking on the term biomanufacturing will provide you with the above definition. However, this feature may not be able on some mobile devices.

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Q38 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

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Page Break

Q39 Please take a moment to write a few words or even a full sentence or two about the first thing that came to mind when you read the description of biomanufacturing.

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Page Break

Q40 How easy or difficult would you say the definition of biomanufacturing that you were provided was to understand?

- ☐ Very easy1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very difficult7 (7)

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Page Break

Q41 And how easy or difficult would you say that **most others** would find the definition of biomanufacturing that you were provided?

- ☐ Very easy1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very difficult7 (7)

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Page Break



Q42 As best you can recall, did the definition you saw contain each of the following terms or descriptors?

	Definitely <u>did not</u> contain this term 1 (1)	2 (2)	3 (3)	May have contained this term 4 (4)	5 (5)	6 (6)	Definitely <u>did</u> contain this term 7 (7)
"biological systems" (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"conventional" (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"renewable" (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"construct merchandise" (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"attributes" (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"rudimentary" (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"techniques" (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q43 Also, do you happen to recall the product that was used as an example for what biomanufacturing might be used to make? Please type it in the space below.

Page Break

Q44 And please tell us the extent to which the **definition you just read...**

	Not at all 1 (1)	2 (2)	3 (3)	Somewhat 4 (4)	5 (5)	6 (6)	Very much 7 (7)
made you curious. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
captured your interest. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
captured your attention. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
made you want to know more. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

Q45 And now that you know a little about biomanufacturing, how likely or unlikely are you to do each of the following as it relates to the topic?

	Not at all likely 1 (1)	2 (2)	3 (3)	Somewhat likely 4 (4)	5 (5)	6 (6)	Very likely 7 (7)
seek more information (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
watch a YouTube video (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
read an article (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
listen to a podcast (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
search for social media content (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q46 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Overall, I support research on biomanufacturing. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I support federal funding for biomanufacturing research. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I support state funding for biomanufacturing research. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think there are many likely benefits from biomanufacturing. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think there are many likely risks from biomanufacturing. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufacturing is morally acceptable. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would purchase products made through biomanufacturing. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q47 How much more, if anything at all, would you be willing to pay for a product produced through biomanufacturing?

- ☐ No more money at all (1)
- ☐ 1-5% more (2)
- ☐ 6-10% more (3)
- ☐ 11-15% more (4)
- ☐ 16-20% more (5)
- ☐ 21+% more (6)
- ☐ I don't know (7)

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Page Break

Q48 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Biomanufacturing sounds like an overall good thing for our world. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufacturing sounds too risky to pursue. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is best if the USA leads the way in biomanufacturing research. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is best if some other country leads the way in biomanufacturing research. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufactured products should be labeled. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q49 Continuing with biomanufacturing, how do you view the relationship between its risks and benefits?

- ☐ The risks strongly outweigh the benefits<sup>1</sup> (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ The risks and benefits are about equal<sup>4</sup> (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ The benefits strongly outweigh the risks<sup>7</sup> (7)

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Page Break

Q50 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
I would be willing to let scientists have complete control over the future of biomanufacturing. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I had my way, I would let scientists have any influence over decisions about biomanufacturing that are important to me. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see no need to keep an eye on scientists who are involved in biomanufacturing. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be comfortable giving a scientist a biomanufacturing task or problem that is critical to me, even if I could not monitor their actions. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Complex / Fabrics

Start of Block: Simple / Makeup



Q51 On the next page, you will see a definition of biomanufacturing. You will be able to continue with the rest of the survey questions after viewing that definition. The button to advance the survey will appear after 20 seconds on the next page.

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Page Break

Q52 Biomanufacturing uses living things such as bacteria, yeast, and algae, to make goods with desired qualities. Example products of biomanufacturing include basic ingredients for makeup. Currently, these products are made through traditional manufacturing approaches that use raw materials that may not be easily replaced. At various points in the survey, hovering over or clicking on the term biomanufacturing will provide you with the above definition. However, this feature may not be able on some mobile devices.

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Q53 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

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Page Break

Q54 Please take a moment to write a few words or even a full sentence or two about the first thing that came to mind when you read the description of biomanufacturing.

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Page Break

Q55 How easy or difficult would you say the definition of biomanufacturing that you were provided was to understand?

- ☐ Very easy1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very difficult7 (7)

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Page Break

Q56 And how easy or difficult would you say that **most others** would find the definition of biomanufacturing that you were provided?

- ☐ Very easy1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very difficult7 (7)

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Page Break

Q57 As best you can recall, did the definition you saw contain each of the following terms or descriptors?

	Definitely <b><u>did not</u></b> contain this term 1 (1)	2 (2)	3 (3)	May have contained this term 4 (4)	5 (5)	6 (6)	Definitely <b><u>did</u></b> contain this term 7 (7)
"living things" (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"traditional" (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"easily replaced" (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"make goods" (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"qualities" (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"basic" (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"approaches" (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

Q58 Also, do you happen to recall the product that was used as an example for what biomanufacturing might be used to make? Please type it in the space below.

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Page Break

Q59 And please tell us the extent to which the **definition you just read...**

	Not at all 1 (1)	2 (2)	3 (3)	Somewhat 4 (4)	5 (5)	6 (6)	Very much 7 (7)
made you curious. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
captured your interest. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
captured your attention. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
made you want to know more. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

Q60 And now that you know a little about biomanufacturing, how likely or unlikely are you to do each of the following as it relates to the topic?

	Not at all likely 1 (1)	2 (2)	3 (3)	Somewhat likely 4 (4)	5 (5)	6 (6)	Very likely 7 (7)
seek more information (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
watch a YouTube video (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
read an article (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
listen to a podcast (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
search for social media content (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q61 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Overall, I support research on biomanufacturing. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I support federal funding for biomanufacturing research. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I support state funding for biomanufacturing research. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think there are many likely benefits from biomanufacturing. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think there are many likely risks from biomanufacturing. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufacturing is morally acceptable. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would purchase products made through biomanufacturing. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q62 How much more, if anything at all, would you be willing to pay for a product produced through biomanufacturing?

- ☐ No more money at all (1)
- ☐ 1-5% more (2)
- ☐ 6-10% more (3)
- ☐ 11-15% more (4)
- ☐ 16-20% more (5)
- ☐ 21+% more (6)
- ☐ I don't know (7)

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Page Break

Q63 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Biomanufacturing sounds like an overall good thing for our world. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufacturing sounds too risky to pursue. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is best if the USA leads the way in biomanufacturing research. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is best if some other country leads the way in biomanufacturing research. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufactured products should be labeled. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break



Q64 Continuing with biomanufacturing, how do you view the relationship between its risks and benefits?

- ☐ The risks strongly outweigh the benefits1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ The risks and benefits are about equal4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ The benefits strongly outweigh the risks7 (7)

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Page Break

Q65 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
I would be willing to let scientists have complete control over the future of biomanufacturing. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I had my way, I would let scientists have any influence over decisions about biomanufacturing that are important to me. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see no need to keep an eye on scientists who are involved in biomanufacturing. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be comfortable giving a scientist a biomanufacturing task or problem that is critical to me, even if I could not monitor their actions. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Simple / Makeup

Start of Block: Complex / Makeup

Q66 On the next page, you will see a definition of biomanufacturing. You will be able to continue with the rest of the survey questions after viewing that definition. The button to advance the survey will appear after 20 seconds on the next page.

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Page Break

Q67 Biomanufacturing uses living biological systems such as bacteria, yeast, and algae, to construct merchandise with desired attributes. Example products of biomanufacturing include rudimentary ingredients for makeup. Currently, these products are made through conventional manufacturing techniques that use raw materials that may not be renewable. At various points in the survey, hovering over or clicking on the term biomanufacturing will provide you with the above definition. However, this feature may not be able on some mobile devices.

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Q68 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

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Page Break

Q69 Please take a moment to write a few words or even a full sentence or two about the first thing that came to mind when you read the description of biomanufacturing.

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Page Break

Q70 How easy or difficult would you say the definition of biomanufacturing that you were provided was to understand?

- ☐ Very easy1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very difficult7 (7)

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Page Break

Q71 And how easy or difficult would you say that **most others** would find the definition of biomanufacturing that you were provided?

- ☐ Very easy1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ Very difficult7 (7)

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Page Break

Q72 As best you can recall, did the definition you saw contain each of the following terms or descriptors?

	Definitely <u>did not</u> contain this term 1 (1)	2 (2)	3 (3)	May have contained this term 4 (4)	5 (5)	6 (6)	Definitely <u>did</u> contain this term 7 (7)
"biological systems" (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"conventional" (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"renewable" (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"construct merchandise" (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"attributes" (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"rudimentary" (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"techniques" (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q73 Also, do you happen to recall the product that was used as an example for what biomanufacturing might be used to make? Please type it in the space below.

Page Break

Q74 And please tell us the extent to which the **definition you just read...**

	Not at all 1 (1)	2 (2)	3 (3)	Somewhat 4 (4)	5 (5)	6 (6)	Very much 7 (7)
made you curious. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
captured your interest. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
captured your attention. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
made you want to know more. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Page Break

Q75 And now that you know a little about biomanufacturing, how likely or unlikely are you to do each of the following as it relates to the topic?

	Not at all likely 1 (1)	2 (2)	3 (3)	Somewhat likely 4 (4)	5 (5)	6 (6)	Very likely 7 (7)
seek more information (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
watch a YouTube video (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
read an article (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
listen to a podcast (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
search for social media content (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q76 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Overall, I support research on biomanufacturing. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I support federal funding for biomanufacturing research. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, I support state funding for biomanufacturing research. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think there are many likely benefits from biomanufacturing. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think there are many likely risks from biomanufacturing. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
biomanufacturing is morally acceptable. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would purchase products made through biomanufacturing. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q77 How much more, if anything at all, would you be willing to pay for a product produced through biomanufacturing?

- ☐ No more money at all (1)
- ☐ 1-5% more (2)
- ☐ 6-10% more (3)
- ☐ 11-15% more (4)
- ☐ 16-20% more (5)
- ☐ 21+% more (6)
- ☐ I don't know (7)

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Q78 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
Biomanufacturing sounds like an overall good thing for our world. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufacturing sounds too risky to pursue. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is best if the USA leads the way in biomanufacturing research. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is best if some other country leads the way in biomanufacturing research. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biomanufactured products should be labeled. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q79 Continuing with biomanufacturing, how do you view the relationship between its risks and benefits?

- ☐ The risks strongly outweigh the benefits1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ The risks and benefits are about equal4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ The benefits strongly outweigh the risks7 (7)

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Q80 Next, how much do you agree or disagree with the following statements about biomanufacturing?

	Strongly disagree 1 (1)	2 (2)	3 (3)	Neither agree nor disagree 4 (4)	5 (5)	6 (6)	Strongly agree 7 (7)
I would be willing to let scientists have complete control over the future of biomanufacturing. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I had my way, I would let scientists have any influence over decisions about biomanufacturing that are important to me. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see no need to keep an eye on scientists who are involved in biomanufacturing. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be comfortable giving a scientist a biomanufacturing task or problem that is critical to me, even if I could not monitor their actions. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Complex / Makeup

Start of Block: End demographics

Q81 Moving away from biomanufacturing, to what extent do you look to each of the following for guidance on right and wrong in your everyday life?

	No guidance at all 1 (1)	2 (2)	3 (3)	A moderate amount of guidance 4 (4)	5 (5)	6 (6)	A great deal of guidance 7 (7)
Religion (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Philosophy (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Common sense (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q82 The terms “liberal” and “conservative” may mean different things to people, depending on the kind of issue one is considering. In terms of **economic issues**, would you say you are...

- ☐ Very liberal (1)
- ☐ Liberal (2)
- ☐ Somewhat liberal (3)
- ☐ Moderate (4)
- ☐ Somewhat conservative (5)
- ☐ Conservative (6)
- ☐ Very conservative (7)

Q83 Now, thinking in terms of **social issues**, would you say you are...

- ☐ Very liberal (1)
- ☐ Liberal (2)
- ☐ Somewhat liberal (3)
- ☐ Moderate (4)
- ☐ Somewhat conservative (5)
- ☐ Conservative (6)
- ☐ Very conservative (7)

End of Block: End demographics

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Start of Block: Debrief

Q84 Thank you very much for participating in our study. If you have questions about the research after today, you should contact Michael Cacciatore (mcacciat@uga.edu). We would like to remind you that your participation in this research is completely voluntary. If you would like to withdraw from this study, please let the Principal Investigator know and we will destroy any data collected about you during this study. The decision to withdraw from this research will involve no penalty or loss of any benefits to which you are otherwise entitled. This will not affect your relationship with the investigators. This project was made possible with the support of The Bioindustrial Manufacturing and Design Ecosystem (BioMADE); the content expressed herein is that of the authors and does not necessarily reflect the views of BioMADE.