

Stem Cell Reports, Volume 15

Supplemental Information

**The American Public Is Ready to Accept Human-Animal Chimera
Research**

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Table S1. Demographics of Experimental Subjects. Related to Experimental Procedures.

Education	Subjects	U.S. Census
Less than HS	1%	18%
High school / GED	19%	30%
Some college	3%	20%
Assoc. degree	9%	7%
Bachelor's	51%	17%
Graduate Degree	17%	10%

Gender	Subjects	U.S. Census
Male	60%	49%
Female	40%	51%

Political Ideology	Subjects
Very Liberal	11%
Liberal	19%
Somewhat Liberal	11%
Moderate	17%
Somewhat Conservative	12%
Conservative	22%
Very Conservative	8%

Age Groups	Subjects	U.S. Census
18-24	8%	13%
25-34	49%	18%
35-44	21%	19%
45-59	17%	27%
60 +	5%	23%

Religious Affiliation	Subjects	U.S. Census
Yes	44%	61%
No	56%	39%

Animal Experiments Necessary	Subjects
Strongly Agree	30%
Somewhat Agree	44%
Somewhat Disagree	19%
Strongly Disagree	7%

Table S1.

Table S1 provides the summary demographics for the 430 participants in our online survey alongside available data from the 2010 U.S. Census.

Table S2. Results of ordered logistic regression by group. Related to Figure 3.

	Personally Acceptable (0-3 scale) Coef./(se)
Disagreement with Need for Animal Experiments	-0.807**/ (0.120)
Conservative Ideology	-0.108*/ (0.055)
Age	0.000/ (0.009)
Religiously Affiliated	-0.346*/ (0.202)
Ever Been Married	-0.107/ (0.227)
Education Level	0.087/ (0.072)

Table S2.

Table S2 presents the ordered log-odds (logit) regression coefficients and standard errors of the individual regression coefficients (in parentheses) from the ordered logistic regression model, N=430. The outcome variable takes on the values 0, 1, 2, and 3, with 0 indicating that the research is not acceptable, and 1, 2, and 3 representing acceptance of Step 1, Step 2, and Step 3 as described in Fig S1. Statistical significance is marked as follows: *** p<.01, ** p<.05, * p<.10. We checked for multicollinearity using the collin package in Stata. The mean VIF was 1.10 for the independent variables included in this model, suggesting no severe multicollinearity issues with the model.

Table S3. Results of ordered logistic regression by group and organ. Related to Figure 4.

	Liver Coef./(se)	Brain Coef./(se)	Sperm/egg Coef./(se)	Skin Coef./(se)	Blood Coef./(se)	Heart Coef./(se)
Disagreement with Need for Animal Experiments	1.108** (0.12)	0.625** (0.107)	0.467** (0.109)	0.815** (0.112)	0.666** (0.108)	0.892** (0.113)
Conservative Ideology	0.055 (0.052)	0.009 (0.048)	0.024 (0.049)	0.016 (0.05)	0.064 (0.049)	0.088 (0.05)
Age	-0.001 (0.008)	0.006 (0.008)	0.009 (0.008)	0.002 (0.008)	-0.003 (0.008)	-0.001 (0.008)
Religiously Affiliated	0.27 (0.187)	0.563** (0.18)	0.653** (0.181)	0.299 (0.182)	0.465* (0.181)	0.211 (0.181)
Ever Been Married	0.278 (0.214)	0.119 (0.199)	0.004 (0.199)	0.247 (0.206)	0.512* (0.203)	0.147 (0.204)
Education Level	0.033 (0.07)	-0.012 (0.064)	-0.051 (0.065)	0.062 (0.066)	0.083 (0.066)	0.111 (0.066)

Table S3.

Table S3 presents the ordered log-odds (logit) regression coefficients and standard errors of the individual regression coefficients (in parentheses) from the ordered logistic regression model analyzing participant responses to the survey question, "According to your personal feelings, can you accept the presence of human iPS cells in the following pig organs?" N=430. The outcome variable takes on the values 1-4, with 1="I can accept it," 2="I can somewhat accept it," 3="I somewhat cannot accept it," and 4="I cannot accept it." Statistical significance is marked as follows: *** p<.01, ** p<.05, * p<.10. We checked for multicollinearity using the collin package in Stata. The mean VIF was 1.10 for the independent variables included in this model, suggesting no severe multicollinearity issues with the model.

Table S4. Replication data for the analysis reported here is attached in the Excel sheet named TableS4.xlsx. Related to Experimental Procedures.

Codebook for TableS4:

Variable Name	Variable Label
recordid	Unique de-identified participant ID
personalaccept	What steps of this research are you willing to accept according to your personal feelings? 1 = step 1, 2 = through step 2, 3 = all steps, 4 = No steps
unaccept_ips_liver	According to your personal feelings, can you accept the presence of human IPS cells in the following pig organs? LIVER (1 = yes, 0 = no)
unaccept_ips_brain	According to your personal feelings, can you accept the presence of human IPS cells in the following pig organs? BRAIN (1 = yes, 0 = no)
unaccept_ips_sperm	According to your personal feelings, can you accept the presence of human IPS cells in the following pig organs? SPERM (1 = yes, 0 = no)
unaccept_ips_skin	According to your personal feelings, can you accept the presence of human IPS cells in the following pig organs? SKIN (1 = yes, 0 = no)
unaccept_ips_blood	According to your personal feelings, can you accept the presence of human IPS cells in the following pig organs? BLOOD (1 = yes, 0 = no)
unaccept_ips_heart	According to your personal feelings, can you accept the presence of human IPS cells in the following pig organs? HEART (1 = yes, 0 = no)
animalexperiments	Animal experiments are required for the development of medicine. (1 = strong agree, 2 = slight agree, 3 = slight disagree, 4 = strong disagree)
religious	Do you have a religious affiliation? (1 = yes, 0 = no)
religion	Please describe your main religious affiliation. 1= Christian, 2 = Buddhism, 3 = Islam, 4 = Judaism, 5 = Hinduism, 6 = Other
religion_important	How important is the doctrine of your religion for you in your daily life? (1 = very important, 2 = somewhat important, 3 = not very important, 4 = not important at all)
state	State (1 = Alabama, 2 = Alaska, 3 = Arizona...)
gender	Gender. 1 = Female, 2 = Male, 3 = Other
age	Age
education	Please tell us your educational background (the highest degree you have earned). (1 = less than HS, 2 = HS, 3 = vocational school, 4 = junior college, 5 = college degree, 6 = Masters, JD, MBA, 7 = doctorate)
married	Please tell us your marital history. (1= unmarried, 2 = married, divorced, widowed)
noanimalresearch	Participant disagrees that animal experiments are required for the development of medicine
conservative	Politically, I consider myself: (1) very liberal, (2) liberal, (3) somewhat liberal, (4) moderate, (5) somewhat conservative, (6) conservative, (7) very conservative.

Supplemental Experimental Procedures

[Complete Survey](#)

Revised Sawai Questionnaire

Start of Block: MTurkID

Q35 The accuracy of this survey requires that we ensure that you have not previously taken the survey. So that we can check this, please enter your MTurk ID below:

End of Block: MTurkID

Start of Block: Default Question Block

Q1 Research Purpose Thank you for your interest in participating in this study. This page outlines the purposes of the study and provides a description of your involvement and rights as a participant.

The purpose of this study is to learn about public opinion on a new scientific technology. There are less than minimal risks associated with completing this survey. There are no direct benefits to participating in this study.

We estimate that the survey will take you no more than 15 minutes to complete, and you will be compensated with \$ 0.75 for your participation.

Your participation in this research is voluntary. You have the right to withdraw at any point during the study if you no longer wish to participate. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota.

NO personally identifying information will be collected. The records of this study will be kept private. In any sort of report we might publish, we will exclude any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to these records. All study data will be encrypted. These records will be accessed only by members of the research team.

If you would like to contact the Principal Investigator in the study to discuss this research, please e-mail: Principal investigator: Francis Shen Contact: Fxshen@umn.edu Research Organization: University of Minnesota, Twin Cities If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

By continuing, you are agreeing to participate in this research study.

End of Block: Default Question Block

Start of Block: block 1.5

Q33

Study Specifics: Induced pluripotent stem cells (iPS cells) are stem cells generated from adult tissue which can give rise to all cells in the human body. A broad range of studies using iPS cells have received widespread attention. Some of those studies involve infusing animal embryos with human iPS cells. Currently, discussions to establish better rules for such studies are underway. However, it is not clear what kind of expectations and concerns researchers engaging in iPS cell research and the general public have. This survey was planned to collect answers from both researchers engaging in iPS cell research and the general public to compare and examine their responses. This research aims to examine a few aspects of future iPS cell research. We would appreciate your understanding of the purpose of this survey as well as your participation in it. The contents of your response might be published in the form of research results in academic conferences, journals and websites where individuals cannot be identified.

Currently, a variety of studies on human induced pluripotent stem cells (iPS cells) are being conducted, such as injecting human iPS cells into swine embryos.

In this research human iPS cells are injected into a swine embryo, and the embryo is returned into a pig uterus to produce a pig with a human pancreas.

This research has the following purposes:

- (1) To study the growth and function of human iPS cells injected in swine embryos.
- (2) To study the process of pancreatic formation, pancreatic functions, and the developmental and recovery processes of pancreatic diseases, as well as to develop pharmaceutical agents and treatments by producing pigs with a human pancreas.
- (3) To potentially benefit those who need a transplant by studying whether the transplanted pancreas functions appropriately. (The pancreas is produced in a pig body, but the pancreas is human).

With current technology it is possible that human iPS cells will become a part of organs and tissues other than the pancreas during production of a pig with a pancreas made up of human cells.

End of Block: block 1.5

Start of Block: Block 2

Q2 From here, we would like to ask questions about your own opinions about the implementation of research injecting human iPS cells into swine embryos. What steps of this research are you willing to accept according to your personal feelings? Please select all steps you think are acceptable.

- 1) Click here if you feel that **ONLY Step #1 is acceptable: Human iPS cells are injected into a genetically modified swine embryo that cannot produce a pancreas.** (1)
- 2) Click here if you feel that **BOTH Steps #1 and #2 are acceptable: The embryo is transplanted into the uterus of a pig to produce a pig with a human pancreas.** (2)
- 3) Click here if you feel that **ALL 3 Steps #1, #2, and #3 are acceptable: The human pancreas produced in the pig's body is transplanted.** (3)
- 4) Click here if you feel that **NONE of the steps are acceptable, i.e that this is totally not acceptable (the actions in and of themselves).** (4)

End of Block: Block 2

Start of Block: Block 3

Q60 Up to which research steps do you think should be socially accepted?
Please select the farthest step you think should be socially accepted.

1. Human iPS cells are injected into a genetically modified swine embryo that cannot produce a pancreas. (1)
2. The embryo is transplanted into the uterus of a pig to produce a pig with a human pancreas. (2)
3. The human pancreas produced in the pig's body is transplanted. (3)
4. Totally not acceptable (the actions in and of themselves). (4)

End of Block: Block 3

Start of Block: Block 4

Q36 Now, we would like to ask questions about providing your own cells (blood, skin etc.) for the research by injecting human iPS cells into a swine embryo. Up to which step would you

be willing to provide your own cells to be used for the research by injecting human iPS cells into a swine embryo explained earlier?

- 1. Your iPS cells are injected into a genetically modified swine embryo that cannot produce a pancreas. (1)
- 2. The embryo is transplanted into the uterus of a pig to produce a pig with your pancreas. (2)
- 3. Your pancreas produced in the pig's body is transplanted. (3)
- 4. Totally not acceptable to use your cells. (4)

End of Block: Block 4

Start of Block: Block 5

Q32 Next, we would like to ask questions about providing a family member's cells (blood, skin etc.) for the research by injecting human iPS cells into a swine embryo.

Up to which step would you be willing to provide a family member's cells to be used for the research by injecting human iPS cells into a swine embryo?

- 1. A family member's iPS cells are injected into a genetically modified swine embryo that cannot produce a pancreas. (1)
- 2. The embryo is transplanted into the uterus of a pig to produce a pig with a family member's pancreas. (2)
- 3. A family member's pancreas produced in the pig's body is transplanted to you. (3)
- 4. Totally not acceptable to use a family member's cells. (4)

End of Block: Block 5

Start of Block: Block 6

Q30 If for instance, you were in need of an organ transplant, would you accept the following organs?

NO	YES			
	I would accept it (1)	Perhaps I would accept it (2)	Perhaps I would not not accept it (3)	I would not not accept it (4)
1. A part of the pancreas of a living family member (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. A part of the pancreas of a family member in cardiac or respiratory arrest (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. A part of the pancreas of a brain-dead family member (in a condition where the brain is dead and the body is alive) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. A part of the pancreas of an unrelated living person (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. A part of the pancreas of an unrelated person in cardiac or respiratory arrest (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. A part of the pancreas of an unrelated brain-dead person (in a condition where the brain is dead and the body is alive) (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Human pancreas produced in a pig body using human iPS cells (7)

8. A pancreas containing both swine cells and human cells (8)

9. A pancreas from a pig (9)

End of Block: Block 6

Start of Block: Block 7

Q28 If for instance, a family member were in need of an organ transplant, would you want for them to receive the following organs?

	I would want it (1)	Perhaps I would want it (2)	Perhaps I would not want it (3)	I would not not want it (4)
1. A part of the pancreas of a living family member (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. A part of the pancreas of a family member in cardiac or respiratory arrest (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. A part of the pancreas of a brain-dead family member (in a condition where the brain is dead and the body is alive) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. A part of the pancreas of an unrelated living person (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. A part of the pancreas of an unrelated person in cardiac or respiratory arrest (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. A part of the pancreas of an unrelated brain-dead person (in a condition where the brain is dead and the body is alive) (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Human pancreas produced in a	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

pig body using
human iPS cells
(7)

8. A pancreas
containing both
swine cells and
human cells (8)

9. A pancreas
from a pig (9)

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Block 7

Start of Block: Block 8

Q34 Next, we would like to ask questions about your expectations and concerns regarding the research by injecting human iPS cells into a swine embryo.

What kind of expectations do you have regarding the research by injecting human iPS cells into a swine embryo? (Select all applicable items).

- 1. It allows the development of research of human iPS cells. (1)
- 2. The mechanisms of diseases are clarified. (2)
- 3. New treatment methods are developed. (3)
- 4. New drugs are developed. (4)
- 5. Organs available for transplantation are produced. (5)
- 6. I have no expectations. (6)
- 7. Other: (7) _____

End of Block: Block 8

Start of Block: Block 9

Q62 What kind of concerns do you have regarding the research by injecting human iPS cells into a swine embryo? (Select all applicable items).

- 1. It is not natural. (1)
- 2. It undermines human dignity. (2)
- 3. Traditional values are diminished. (3)
- 4. It produces humanized animals. (4)
- 5. The tendency to use animals as tools (means) is enhanced. (5)
- 6. It is possible that human cells end up a part of organs and tissues other than the pancreas regardless of the original intention (6)
- 7. I have no concerns. (7)
- 8. Other: (8) _____

End of Block: Block 9

Start of Block: Block 10

Q9 Research steps of the "research by injecting human iPS cells into a swine embryo".

With current technology it is possible that human iPS cells will become a part of organs and tissues other than the pancreas during the production of a pig with a pancreas made up of human cells.

According to your personal feelings, can you accept the presence of human IPS cells in the following pig organs?

	I can accept it (1)	I somewhat can accept it (2)	I somewhat cannot accept it (3)	I cannot accept it (4)
1. Liver (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Brain (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Sperm, ovum (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Skin (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Blood (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Heart (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Block 10

Start of Block: Block 11

Q9 According to your personal feelings, what percentage of human cells can you accept in the following porcine organs, tissues and cells?

	0% (1)	1-25% (2)	26-50% (3)	51-75% (4)	76-99% (5)	100% (6)
1. Liver (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Brain (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Sperm, ovum (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Skin (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Blood (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Heart (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Block 11

Start of Block: Block 12



Q44 Please let us know your thoughts and share any comments you might have on the research by injecting human iPS cells into a swine embryo. Any kind of answer is acceptable, but please be as specific as possible. If you have nothing to say, please leave the box blank.

End of Block: Block 12

Start of Block: Block 13

Q14 Have you ever had a pet? Please check the appropriate answer for each item.

	Current pet(s) (Select all applicable items) (1)	Previous pet(s) (Select all applicable items) (2)
Dog (1)	<input type="checkbox"/>	<input type="checkbox"/>
Cat (2)	<input type="checkbox"/>	<input type="checkbox"/>
Bird (3)	<input type="checkbox"/>	<input type="checkbox"/>
Rabbit (4)	<input type="checkbox"/>	<input type="checkbox"/>
Hamster (5)	<input type="checkbox"/>	<input type="checkbox"/>
Fish (6)	<input type="checkbox"/>	<input type="checkbox"/>
Other (7)	<input type="checkbox"/>	<input type="checkbox"/>
None of the above (8)	<input type="checkbox"/>	<input type="checkbox"/>

End of Block: Block 13

Start of Block: Block 14

Q26 How much do you usually participate in volunteer activities (blood donation, charitable donation, community activities etc.)?

- 1. I participate often. (1)
- 2. I participate occasionally. (2)
- 3. I don't participate very much. (3)
- 4. I don't participate at all. (4)

End of Block: Block 14

Start of Block: Block 15

Q48 Please select the appropriate answer regarding the following behaviors related to medical care.

	Yes (1)	No (2)
1. My intention to donate my organs is indicated on an organ donor card, driver's license or health insurance card. (1)	<input type="radio"/>	<input type="radio"/>
2. I have participated in medical research. (2)	<input type="radio"/>	<input type="radio"/>
3. I have a primary care doctor. (3)	<input type="radio"/>	<input type="radio"/>
4. When choosing a medical institution, I require the facility to be able to provide diagnoses and treatments based on innovative medical technology. (4)	<input type="radio"/>	<input type="radio"/>

End of Block: Block 15

Start of Block: Block 16

Q46 Please select the appropriate answer regarding the following attitudes towards medical care.

	Strongly agree (1)	Slightly agree (2)	Slightly disagree (3)	Strongly disagree (4)
1. Animal experiments are required for the development of medicine. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I think brain death (a condition where the brain is dead and the body is alive) equals death. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. If I got an incurable disease, I think I would try every available treatment even if the chance of being cured was low. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Medical research should proceed in accordance with people's views on ethics. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Block 16

Start of Block: Block 17

Q18 Have you or your family members experienced the following serious diseases (with very serious life threatening symptoms)? Please check all appropriate answers.

	Yourself (1)	Your Family (2)	N/A (3)
1. Cancer (malignant neoplasm) (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Heart disease (cardiac disease) (2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Stroke (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Pneumonia (4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Other serious symptoms (5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. No experience of serious diseases (with very serious life-threatening symptoms) (6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

End of Block: Block 17

Start of Block: Attention Check

attention **Background Questions on Sources for News** In this experiment, you have been asked to make decisions after evaluating information. Most modern theories of decision making recognize the fact that decisions do not take place in a vacuum. Individual preferences and knowledge, along with situational variables can greatly impact the decision process. In order to facilitate our research on decision making we are interested in knowing certain factors about you, the decision maker. Specifically, we are interested in whether you actually take the time to read the directions; if not, then some of our questions will be ineffective. So, in order to demonstrate that you have read the instructions, please ignore the question below. Instead, please click only the "Magazines" button and then type 654 into the Other field at the bottom of the screen, and then click on the next button below to proceed to the next screen.

From which of these sources have you received information in the past month?

(Click all that apply and answer according to the directions above)

- Local newspaper (1)
- National newspaper (2)
- Local TV news (3)
- Nightly network news (4)
- Cable TV news (5)
- Magazines (6)
- Speaking with family / friends (7)
- Radio newscast (8)
- Internet web sites (9)
- Other (10) _____

End of Block: Attention Check

Start of Block: Block 18

Q20 Have you or your partner visited a clinic/hospital for infertility treatment?

- 1. Yes (1)
- 2. No (2)

End of Block: Block 18

Start of Block: Block 19

Q8 Do you have a religious affiliation?

- 1. No (2)
- 2. Yes (3)

End of Block: Block 19

Start of Block: Block 20

Q40 Please describe your main religious affiliation.

- 1. Christianity (1)
- 2. Buddhism (2)
- 3. Islam (3)
- 4. Judaism (4)
- 5. Hinduism (5)
- 6. Other religion: (6) _____

End of Block: Block 20

Start of Block: Block 21

Q22 How important is the doctrine of your religion for you in your daily life?

- 1. Very important (1)
- 2. Somewhat important (2)
- 3. Not very important (3)
- 4. Not important at all (4)

End of Block: Block 21

Start of Block: Block 22: State

Q34 In which state do you currently reside?

▼ Alabama (1) ... I do not reside in the United States (53)

End of Block: Block 22: State

Start of Block: Block 23

Q54 Please tell us your gender.

- Female (1)
- Male (2)
- Other (3)

End of Block: Block 23

Start of Block: Block 24

Q50 Please tell us your age.

End of Block: Block 24

Start of Block: Block 25

Q52 Please tell us your educational background (the highest degree you have earned).

- 1. Junior high school graduate (1)
- 2. High school and technical college graduate (2)
- 3. Vocational school graduate (3)
- 4. Junior college graduate (4)
- 5. University graduate (5)
- 6. Master's or Professional (e.g. JD, MBA) degree (6)
- 7. Doctoral degree (7)

End of Block: Block 25

Start of Block: Block 26

Q56 Please tell us your marital history.

- Unmarried (1)
- Married/ Divorced/Widowed (2)

End of Block: Block 26

Start of Block: Block 27

Q10 Do you have children? If you have one or more children, please choose all applicable ages.

- 1. Child/children [under 7 years] (1)
- 2. Child/children [7 years or more but under 13 years] (2)
- 3. Child/children [13 years or more but under 19 years] (3)
- 4. Child/children [19 years or more but under 23 years] (4)
- 5. Child/children [23 years or more] (5)
- 6. No children (6)

End of Block: Block 27

Start of Block: Block 28

Q16 Have you obtained a medical license?

- Yes (1)
- No (2)

End of Block: Block 28

Start of Block: Block 29



Q24 How many years of clinical experience do you have? Please indicate the total years of experience including all past experience. If you have no clinical experience, please enter 0 years

End of Block: Block 29

Start of Block: Block 30

Q38 Please choose the medical discipline closest to your specialization. * If you choose "Other", please specify your medical discipline.

- 1. Internal medicine (1)
- 2. Surgery (2)
- 3. Orthopedic surgery (3)
- 4. Plastic surgery (4)
- 5. Neurosurgery (5)
- 6. Pediatrics (6)
- 7. Obstetrics and gynecology (7)
- 8. Dermatology (8)
- 9. Urology (9)
- 10. Ophthalmology (10)
- 11. Otorhinolaryngology (11)
- 12. Psychiatry (12)
- 13. Other: (13) _____

End of Block: Block 30

Start of Block: Block 34

Q35 Politically, I consider myself:

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

End of Block: Block 34

Start of Block: Debrief



comments Thank you for participating in this survey.

The images used were created by the Uehiro Research Division for iPS Cell Ethics, Center for iPS Cell Research & Application, Kyoto University, Kyoto, Japan and are copyrighted by the Center for iPS Cell Research and Application, Kyoto University.

Thank you to our collaborators at Kyoto University for allowing us to use their survey as a model. Their original research titled "Public attitudes in Japan towards human-animal chimeric embryo research using human induced pluripotent stem cells" can be found here: <https://www.ncbi.nlm.nih.gov/pubmed/28332949>

Your validation code for mTurk is `#{e://Field/mTurkCode}`.
Please write this number down, and then enter it into MTurk.

The University of Minnesota will continue to conduct attitude surveys regarding studies using iPS cells in the future. Please give us your thoughts, for example regarding your concerns about research or questions that you want to ask the general public, as specifically as possible. If you have nothing to say, please answer leave the box blank.

End of Block: Debrief
