



VCU LIFE SCIENCES SURVEY 2007

A national public opinion survey conducted for VCU Life Sciences and the VCU College of Humanities and Sciences by the VCU Center for Public Policy

Contact:

Cary Funk, Survey Director, Phone 804 827 1212 Cell 703 286 9439/ E-mail clfunk@vcu.edu
Thomas F. Huff, Vice Provost for Life Sciences, Phone 804 827 5600 / E-mail tfhuff@vcu.edu

Implications of New Discovery Creating Stem Cells from Skin

WIDESPREAD SUPPORT FOR NON-EMBRYONIC STEM CELL RESEARCH BUT CONTINUED NEED FOR BOTH KINDS OF RESEARCH

Three-quarters of the U.S. public support stem cell research that does *not* involve human embryos. Majorities of nearly all groups in society, including those with differing beliefs about abortion and religious commitment, favor non-embryonic stem cell research. About four-in-ten (38%) Americans report hearing about recent research showing that human skin cells can be used to create stem cells or their near equivalents. When asked about the implications of this development, more than six-in-ten (63%) say that both embryonic and non-embryonic stem cell research is still needed, 22% say this development means embryonic stem cell research is no longer necessary.

These findings are part of a new nationwide survey conducted by Virginia Commonwealth University. The VCU Life Sciences Survey was conducted by telephone with 1000 adults nationwide, from Nov. 26 to Dec. 9, 2007. The margin of error for the poll is plus or minus 3 percentage points. This is the seventh annual VCU Life Sciences Survey, conducted for VCU Life Sciences and the VCU College of Humanities and Sciences by the VCU Center for Public Policy.

Other survey findings:

- **Embryonic stem cell research.** A majority (54%) of Americans strongly or somewhat favor embryonic stem cell research, a figure that has remained about the same since 2004. As in past surveys, opinion on embryonic stem cell research is strongly related to views on abortion, religious commitment and self-assessed knowledge about stem cell research. The partisan divide over embryonic stem cell research remains roughly the same since 2004.
- **Personal impact of genetic research.** Roughly four-in-ten (38%) Americans report having a disease or medical condition strongly related to genetic factors or having a family member with such a disease or condition. Among this group, 57% say that medical research on genes and genetics has a positive affect on their life, 38% say this research hasn't affected their lives and just 3% say it has a negative affect.

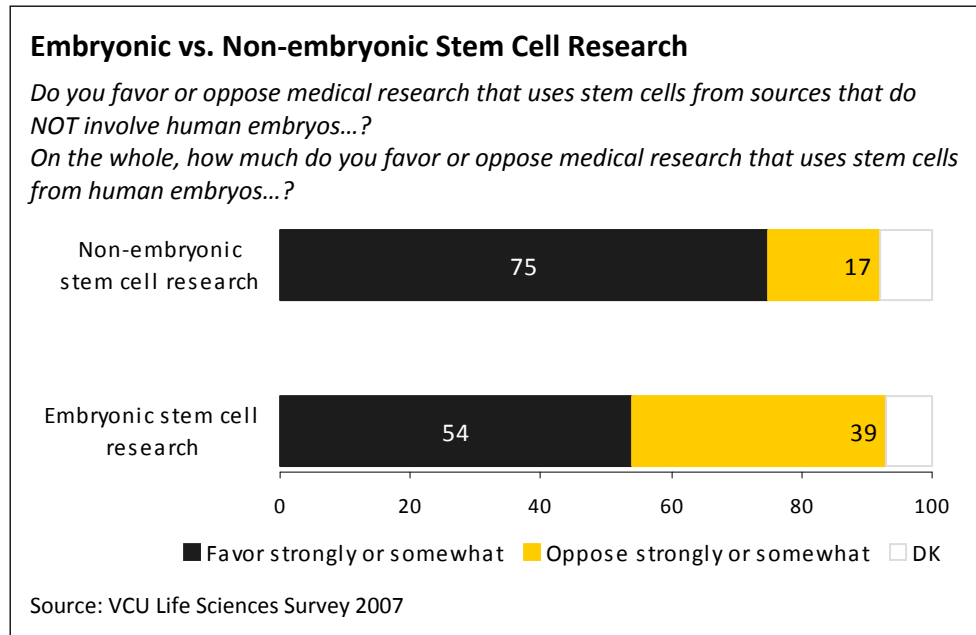
- **Cloning and therapeutic cloning.** Opinion about therapeutic cloning is evenly divided with 47% in favor and 47% opposed to using cloning technology for the development of new medical treatments. When cloning is not restricted to therapeutic purposes, about eight-in-ten (81%) oppose the use of cloning technology in humans. Opinion on both issues has been fairly stable since the first VCU Life Sciences Survey was conducted in 2001.
- **Animal research.** Medical research has long involved testing on animals. About six-in-ten (62%) adults favor the use of animals in medical research either strongly or somewhat, while 35% are opposed.
- **Morality and ethics in scientific decisions.** A majority (51%) of the public says that scientific decisions should be based primarily on an analysis of the risks and benefits involved rather than the moral and ethical issues involved (32%). At the same time, a majority (63%) agrees that scientific research doesn't pay enough attention to the moral values of society.
- **What's the government's role?**
Opinion about the government's role in regulating scientific research is mixed. A 46% plurality says that government regulation is necessary to protect the public interest, while 39% say government regulation does more harm than good. At the same time, 57% of Americans disagree with the idea that government rules will keep us safe from any risks linked to modern genetic science.

About the VCU Life Sciences Survey 2007

- National survey conducted by telephone with a representative sample of adults
- Conducted November 26-December 9, 2007
- 1000 adults interviewed
- Margin of error is plus or minus 3 percentage points
- Annual survey conducted since 2001 with a focus on public opinion about science and biotechnology

New Developments in Stem Cell Research: Beyond Embryonic Stem Cells

The public debate over stem cell research has centered on the destruction of human embryos occurring in the process of the research. And not surprisingly, views about abortion came to be closely aligned with views



about embryonic stem cell research. New research developments have made the potential for conducting stem cell research from other sources increasingly promising. When asked about stem cell research that does *not* involve human embryos, there is strong support in favor of this kind of research (75% favor, 17% oppose).

Majorities among nearly all groups in society strongly or somewhat favor stem cell research under these conditions. While there are some differences in support among groups with differing views about abortion and differing religious commitment, the gaps among these groups are muted when compared with views about embryonic stem cell research.

The 2007 VCU Life Sciences Survey was completed just days after the first news reports surfaced about new research showing that adult skin cells can be used to

New Developments in Stem Cell Research

Recently, results of new research showed that human stem cells can also be made from adult skin cells. Did you happen to hear anything about that research or not?

	%
Yes, heard	38
No	62
Don't know/Refused	<u>0</u>
	100

Do you think research showing stem cells can be made from adult skin cells means that human embryonic stem cell research is no longer necessary OR do you think both kinds of research are still needed?

	%
Embryonic stem cell research no longer necessary	22
Both kinds of research still needed	63
Don't know/Refused	<u>14</u>
	100

Source: VCU Life Sciences Survey 2007
 Figures may add to 99 or 101 due to rounding

generate stem cells, or their equivalents. About four-in-ten (38%) report having heard something about this new research. This figure rises to 64% among those who report paying a lot of attention to news reports on stem cell research. Similarly, 63% of those who say they are very clear about the differences between types of stem cells heard something about this new research development.

When asked about the implications of this development, more than six-in-ten (63%) say that both embryonic and non-embryonic stem cell research are still needed, 22% say embryonic stem cell research is no longer necessary.

Opinion on this question only partially tracks with opinion about embryonic stem cell research. Among those in favor of embryonic stem cell research opinion is fairly uniform; 86% of this group say that both kinds of research are still needed, just 6% say this development means that embryonic stem cell research is no longer necessary. Those opposed to embryonic stem cell research are more varied in their assessments of this research development. Among those somewhat opposed to embryonic stem cell research a 55% majority say that both kinds of research are still needed, 25% say embryonic stem cell research is no longer necessary and 21% give no opinion. Among those strongly opposed to embryonic stem cell research more than six-in-ten (63%) say this development means embryonic stem cell research is no longer necessary, two-in-ten say both kinds of research are needed and the remainder give no opinion.

New Developments in Stem Cell Research by Views on Embryonic Stem Cell Research

Do you think research showing stem cells can be made from adult skin cells means that human embryonic stem cell research is no longer necessary OR do you think both kinds of research are still needed?

		Embryonic stem cell research no longer necessary	Both kinds of research still needed	Don't Know	Number of cases
All adults		22%	63%	14%	1000
Opinion on embryonic stem cell research	Favor strongly or somewhat	6%	86%	8%	563
	Oppose somewhat	25%	55%	21%	154
	Oppose strongly	63%	20%	17%	202

Source: VCU Life Sciences Survey 2007

Figures may add to 99 or 101 due to rounding

Those who believe abortion should be illegal regardless of circumstances are more likely than those with other views about abortion to say this development means that embryonic stem cell research is no longer necessary. Republicans are also more likely than either Democrats or independents to say that embryonic stem cell research is no longer needed. There are no or muted differences in opinion on this issue by other demographic groups; men and women, older and younger, more and less educated, and those more and less attentive to news about stem cells hold similar views on the implications of this development.

New Developments in Stem Cell Research by Views on Abortion, Party Identification

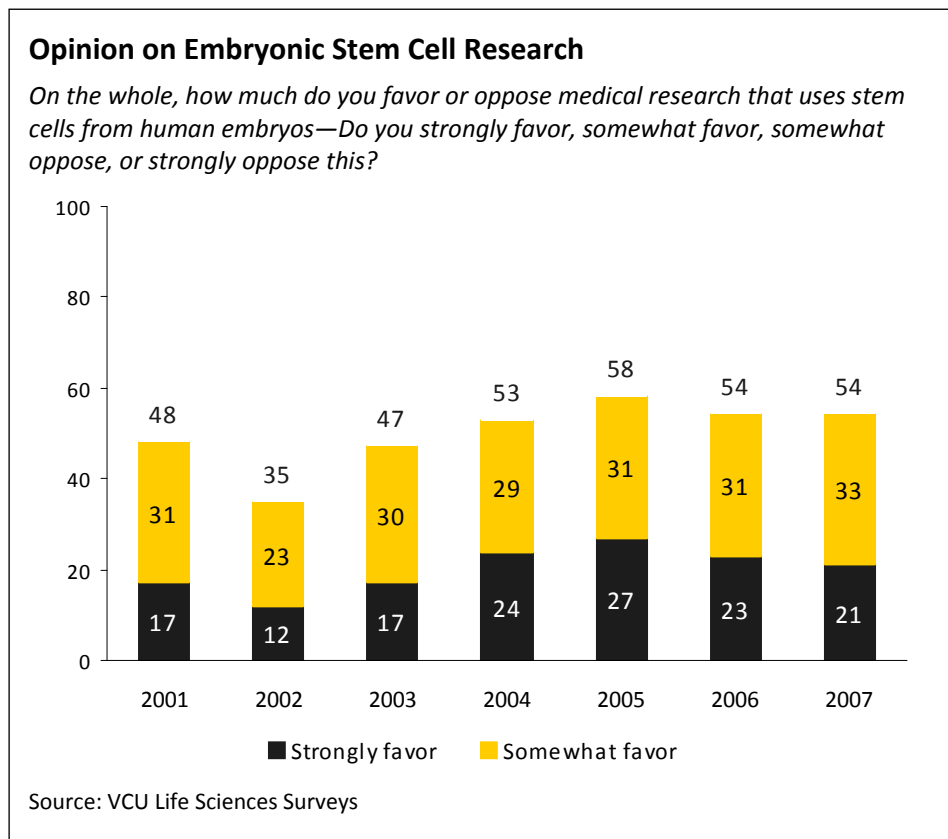
Do you think research showing stem cells can be made from adult skin cells means that human embryonic stem cell research is no longer necessary OR do you think both kinds of research are still needed?

		Embryonic stem cell research no longer necessary	Both kinds of research still needed	Don't Know	Number of cases
All adults		22%	63%	14%	1000
Views on Abortion	Woman should be able to decide-any reason	9%	80%	11%	391
	Should be legal in certain circumstances	23%	63%	14%	417
	Should be illegal-all circumstances	48%	39%	13%	151
Party identification	Democrat	12%	77%	11%	301
	Republican	36%	49%	15%	280
	Independent	17%	66%	17%	341

Source: VCU Life Sciences Survey 2007

Figures may add to 99 or 101 due to rounding

Embryonic Stem Cell Research. The 2007 survey finds a 54% majority in favor of embryonic stem cell research, while 39% oppose. These figures have been about the same since 2004, after some fluctuation in opinion during the years embryonic stem cell research first became a topic for national policy debate. Views about abortion are strongly related to opinion on embryonic stem cell research. As in past years, those who oppose legal abortion under any circumstance are more likely than those who are pro-choice to oppose embryonic stem cell research.

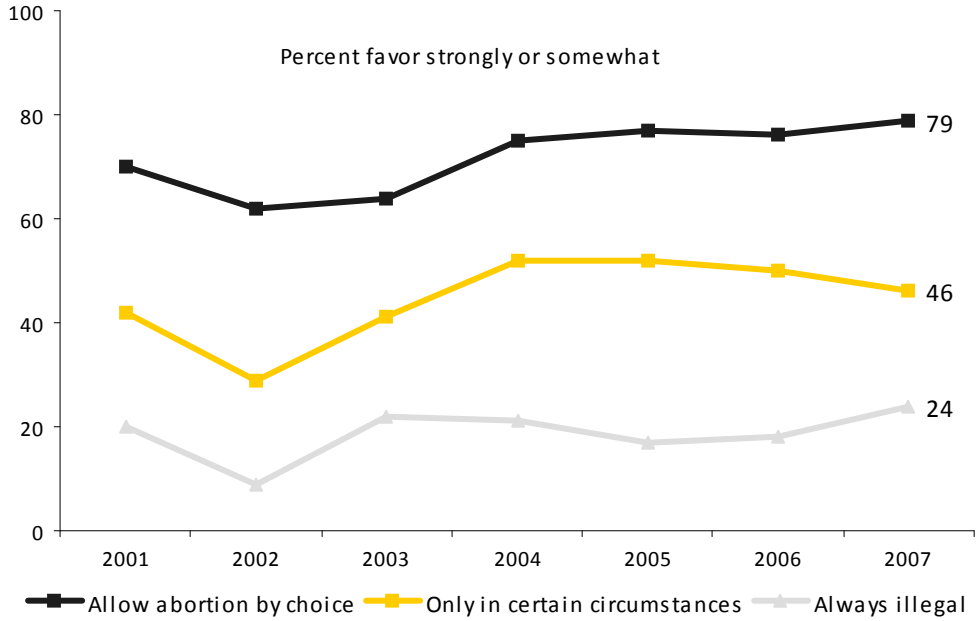


Attention, information, and education are all associated with greater support for embryonic stem cell research. Those who pay more attention to news about embryonic stem cell research are more likely than those who pay less attention to favor this research. Those who say they are very clear about the differences among different types of stem cells are more likely than those who consider themselves only somewhat clear or not clear about types of stem cells to favor this kind of research. Those with at least some college education are more likely than those with less education to favor embryonic stem cell research.

Democrats are more likely than Republicans to favor embryonic stem cell research. Independents fall in between these two groups. The partisan divide over stem cells has been fairly stable since 2004.

Wide Differences on Embryonic Stem Cell Research by Abortion Views

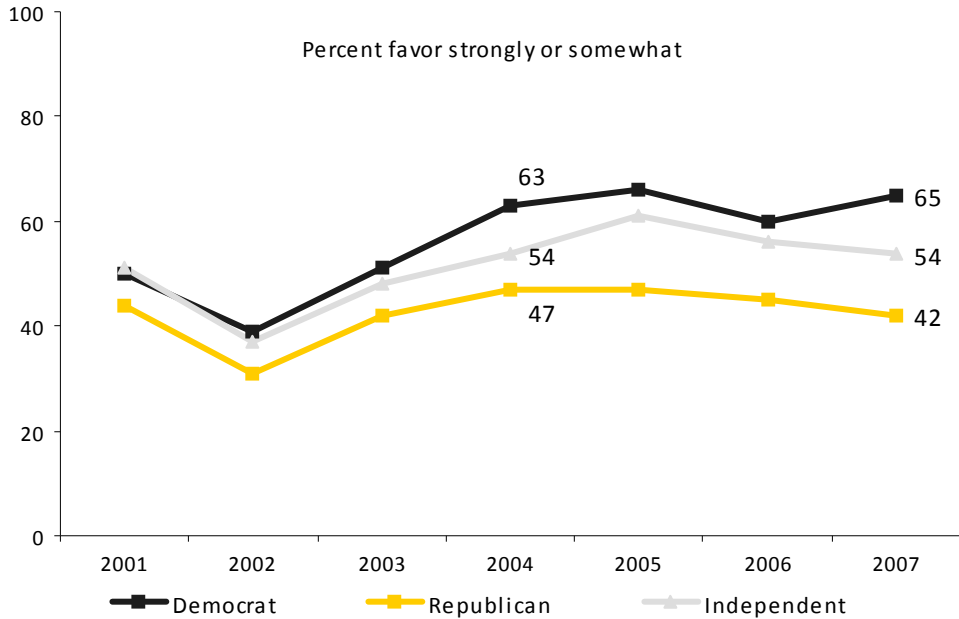
On the whole, how much do you favor or oppose medical research that uses stem cells from human embryos—Do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?



Source: VCU Life Sciences Surveys

Partisan Differences on Embryonic Stem Cell Research

On the whole, how much do you favor or oppose medical research that uses stem cells from human embryos—Do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?



Source: VCU Life Sciences Surveys

The public is closely divided when it comes to priorities for stem cell research: 46% say making sure no human embryos are destroyed in stem cell research is more important while 42% say it is more important to conduct research that might result in new medical advances.

Not surprisingly, views about abortion are strongly related to priorities for stem cell research. Those who think abortion should always be illegal are more likely than those with pro-choice views to say the priority should be on making sure no embryos are destroyed.

Women are more likely than men to say the priorities should be on making sure no embryos are destroyed; 52% of women say this compared with 39% of men.

Those who pay more attention to news about stem cells, have more knowledge about stem cells and have more education are more likely than their counterparts to say the priority should be on conducting research that might lead to new advances.

Priorities for Stem Cell Research

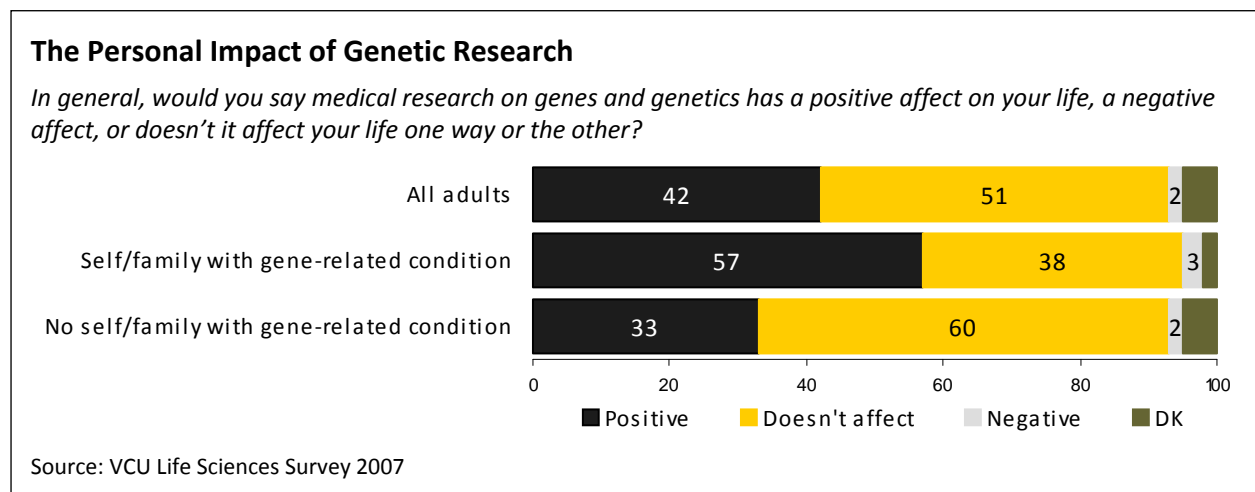
Which do you think is MOST important: conducting stem cell research that might result in medical advances OR making sure that no human embryos are destroyed in this research?

	%
Conducting research that might result in new advances	42
Making sure no embryos are destroyed in this research	46
Neither/Both (volunteered)	4
Don't know/Refused	<u>9</u>
	100

Source: VCU Life Sciences Survey 2007
 Figures may add to 99 or 101 due to rounding

The Personal Relevance of Genes and Genetics

How much connection is there between genetic research and the everyday lives of Americans? Overall, 42% say medical research on genetics has a positive affect on their lives, 51% say it doesn't affect them and just 2% say it has a negative affect.



Roughly four-in-ten (38%) Americans report either having a disease or medical condition that is “strongly related to genetic factors” or having a family member with such a disease or condition. The impact of medical research on genetics is mostly seen as positive among this group; 57% say it positively affects them, 38% say it doesn't affect them and just 3% say it negatively affects them.

Those who have given more thought to genetic issues are more positive about the impact of genetic research on their lives. Among those who report having given a great deal or quite a lot of thought to genes and genetics over the past few months, 63% say the effect of genetic research is positive, 31% say it doesn't affect them and 4% say the effect is negative. This pattern is almost exactly reversed among those reporting not too much or no thought about genetic issues in the past few months; 62% of this group say genetic research does not affect them, 31% say it has a positive affect and 2% say it has a negative affect.

Scientific Research, Government Regulation and Protecting the Public Interest

Opinion about the government’s role in regulating science is mixed. A 46% plurality considers government regulation of scientific research necessary to protect the public interest, while 39% say government regulation in this area does more harm than good. At the same time, Americans seem to have reservations about whether government regulations will protect the public from harm. Nearly six-in-ten (57%) disagree with the statement “the rules set by government will keep us safe from any risks linked to modern genetic science”.

Republicans are slightly more likely than either Democrats or independents to say government regulation of scientific research is necessary to protect the public interest. Not surprisingly, those who express more trust in the federal government are more likely than their less trusting counterparts to consider government regulation in this area necessary.

Mixed Views on Role of Government

Which comes closer to your view: government regulation of scientific research is necessary to protect the public interest OR government regulation usually does more harm than good?

	%
Govt. regulation is necessary	46
Does more harm than good	39
Neither/Both (volunteered)	5
Don’t know/Refused	<u>11</u>
	100

“Rules set by government will keep us safe from any risks linked to modern genetic science.”

	%
Agree or strongly agree	16
Neither agree nor disagree	23
Disagree or strongly disagree	57
Don’t know/Refused	<u>4</u>
	100

Source: VCU Life Sciences Survey 2007
 Figures may add to 99 or 101 due to rounding

Government Regulation of Science by Party identification, Trust in Government

Which comes closer to your view: government regulation of scientific research is necessary to protect the public interest OR government regulation usually does more harm than good?

		Government regulation is necessary	Govt. regulation usually does more harm than good	Neither/Both (vol.)	Don’t Know	Number of cases
All adults		46%	39%	5%	11%	1000
Party identification	Democrat	46%	38%	1%	14%	301
	Republican	53%	32%	7%	8%	280
	Independent	42%	45%	5%	8%	341
Trust federal government	Always/most of time	76%	13%	1%	10%	192
	Only some of time	41%	43%	5%	11%	759

Source: VCU Life Sciences Survey 2007
 Figures may add to 99 or 101 due to rounding

The groups with more information about genetics are more likely to give a skeptical response to the idea that government regulation will protect the public from risks linked to genetic science. Those who report thinking more about genetic issues disagree with this idea more than those who report less thought about genetic issues; people with more information about science and medicine disagree more than those with less information; and those with a gene-related condition in the family disagree more than those without such a condition in the family.

The public is divided over whether genetic researchers can be trusted to act in the public interest. About a quarter (27%) of Americans give a skeptical response in agreeing that “those in charge of new developments in genetic science cannot be trusted to act in society’s interests”. Roughly a third (34%) give a trusting response in disagreeing with the statement and the remainder neither agree nor disagree (31%) with this statement or give no opinion (9%).

Opinion is similarly divided over the public’s role in policy decisions. About four-in-ten (38%) disagree that public involvement in scientific policy debates is not realistic because of the complexity of genetic science. A nearly equal portion (32%) take the opposite viewpoint and 24% neither agree nor disagree with this idea.

Leave It to the Researchers?

“Those in charge of new developments in genetic science cannot be trusted to act in society’s interests.”

	%
Agree or strongly agree	27
Neither agree nor disagree	31
Disagree or strongly disagree	34
Don’t know/Refused	<u>9</u>
	100

Source: VCU Life Sciences Survey 2007

Can the Public Play a Role?

“Modern genetic science is so complex that public involvement in policy decisions is not realistic.”

	%
Agree or strongly agree	32
Neither agree nor disagree	24
Disagree or strongly disagree	38
Don’t know/Refused	<u>5</u>
	100

Source: VCU Life Sciences Survey 2007

Mixed Views about Role of Ethics in Scientific Decisions

When asked to choose, a 51% majority believe scientific decisions should be based primarily on an analysis of the risks and benefits involved; 32% believe these decisions should be based primarily on the moral and ethical issues involved.

Not surprisingly, religious beliefs are related to opinion on this issue. Those who are more religious tilt towards basing decisions on the moral and ethical issues involved (48%); 38% say the risk-benefit analysis should be primary. Those who are less religious clearly side in the opposite direction; 72% of those for whom religion is not important say decisions should be based on a risk and benefit analysis.

Information about science and education are also related to priorities for scientific decisions. Those with more information and more education are more likely than their respective counterparts to say decisions should be based on a risk-benefit analysis.

Those who have a gene-related condition or who have a family member with such a condition are more likely to believe these decisions should be based on a risk-benefit analysis (56% say this compared with 48% among those who do not have a gene-related condition in the family).

Priorities for Scientific Research Decisions

Which comes closer to your view? Decisions about science and technology should be based PRIMARILY on an analysis of the risks and benefits involved OR on the moral and ethical issues involved?

	%
An analysis of the risks and benefits	51
On the moral and ethical issues	32
Neither/Both (volunteered)	9
Don't know/Refused	<u>8</u>
	100

Source: VCU Life Sciences Survey 2007

Whether or not moral and ethical issues are the principal basis for scientific decisions, they remain important from a public standpoint. More than six-in-ten (63%) agree that “scientific research these days doesn’t pay enough attention to the moral values of society”. A majority of the public has agreed with this sentiment since the first VCU Life Sciences Survey in 2001.

At the same time, the public shows strong support for the contributions of science to society, as it has since 2001. About six-in-ten (62%) Americans strongly agree that scientific research is essential for improving the quality of life and a similar proportion (57%) strongly agree that new medical technology allows people to live longer and better.

Concerns about Scientific Research Amid Support for Scientific Contributions to Society

“Scientific research these days doesn’t pay enough attention to the moral values of society.”

	%
Agree strongly or somewhat	63
Disagree strongly or somewhat	31
Don’t know/Refused	<u>6</u>
	100

“Scientific research has created as many problems as it has solutions.”

	%
Agree strongly or somewhat	53
Disagree strongly or somewhat	42
Don’t know/Refused	<u>6</u>
	100

“New technology used in medicine allows people to live longer and better.”

	%
Agree strongly	57
Agree somewhat	33
Disagree strongly or somewhat	9
Don’t know/Refused	<u>2</u>
	100

“Scientific research is essential for improving the quality of human lives.”

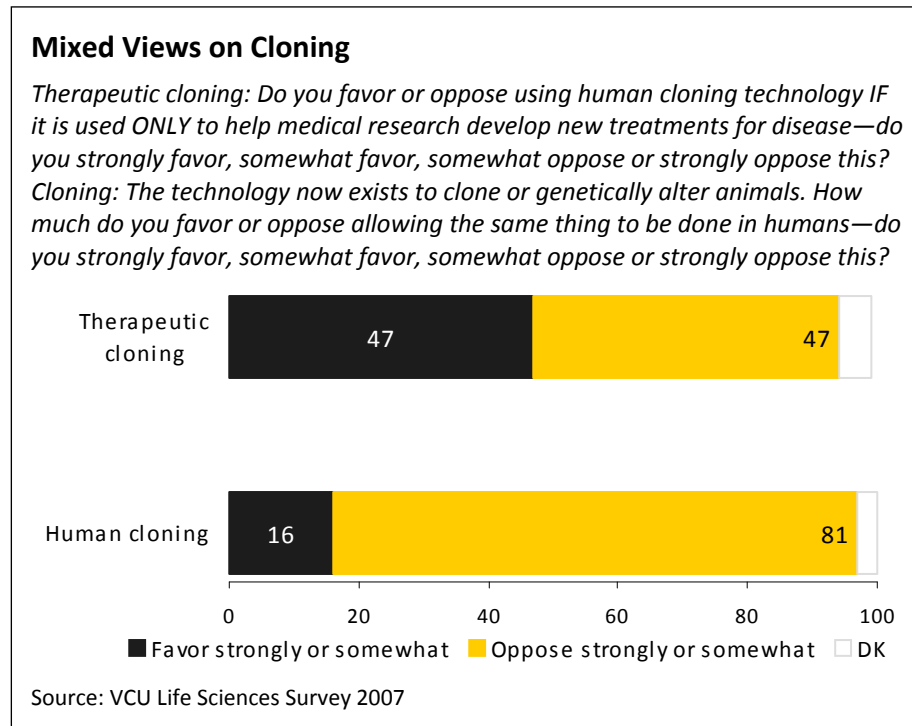
	%
Agree strongly	62
Agree somewhat	30
Disagree strongly or somewhat	7
Don’t know/Refused	<u>2</u>
	100

Source: VCU Life Sciences Survey 2007

Figures may add to 99 or 101 due to rounding

Cloning, Therapeutic Cloning and Animals in Medical Research

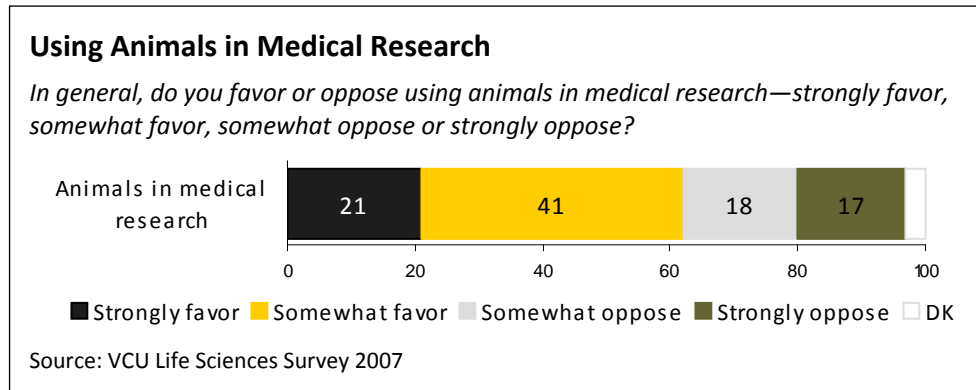
The idea of human cloning draws strong opposition among the public. A majority (61%) strongly oppose the use of cloning technology in humans and another two-in-ten somewhat oppose it. The degree of sentiment against human cloning is largely unchanged since 2001. When cloning is limited to helping develop new treatments for disease, opinion is evenly divided with 47% in favor of cloning and an equal portion opposed. Opinion on therapeutic cloning is largely unchanged since 2001.



This is one of a handful of questions on the survey where men and women tend to hold different views. Among men, 56% favor therapeutic cloning; this compares with 40% among women.

Those who know more about the different types of cloning are more likely than those with less knowledge to support therapeutic cloning. But general information levels about science are not significantly related to opinion on therapeutic cloning. Nor is there a statistically significant difference among education groups.

Animal Research. Medical research has long included research with animals. And biotechnology has relied on research with both animal and human cells. There has been little public polling on the issue of animal research to date. The survey asked just one question on the issue—do you favor or oppose using animals in medical research. About six-in-ten (62%) favor while 35% oppose using animals for this purpose.



Men (70%) favor animal research more so than women (55%). Those more informed about scientific and medical discoveries (67%) favor animal research more so than do the less informed (54%). College graduates (69%) favor using animals in research to a greater degree than do those with a high school diploma or less education (50%).

METHOD OF THE VCU LIFE SCIENCES SURVEY

The VCU Life Sciences Survey is a public opinion survey of U.S. residents about issues in science, medicine and biotechnology. The survey was conducted by telephone from November 26-December 9, 2007 with a randomly-selected sample of 1000 adults living in the continental United States. The survey was jointly sponsored by VCU's College of Humanities and Sciences and VCU Life Sciences, Virginia Commonwealth University's matrix academic organization that integrates the campuses around the life sciences. The survey questions were developed jointly by VCU Life Sciences and by the VCU Center for Public Policy at Virginia Commonwealth University. The interviewing was conducted through the facilities of SRBI, a subsidiary of Abt Associates, Inc. SRBI is a New York-based research and polling company. They used a staff of professionally trained, paid interviewers and computer-assisted telephone interviewing software to conduct the survey.

The sample of telephone numbers was designed so that all residential telephones, including new and unlisted numbers, had a known chance of inclusion. Where possible, pre-notification letters were sent to the households of potential respondents using publicly available address information before telephone interviews were conducted.

The data are weighted to adjust for unequal probabilities of selection due to multiple adults living in the household. In addition, the data are weighted on sex, race, age, education and region of residence to reflect the demographic composition of the adult population in the U.S. Percentages reported in the text and tables are weighted, while the number of cases shown in the tables for various subgroups is the actual number of respondents.

Questions answered by the full sample of adults are subject to a sampling error of plus or minus approximately 3 percentage points at the 95 percent level of confidence. This means that in 95 out of 100 samples like the one used here, the results obtained should be no more than 3 percentage points above or below the figure that would be obtained by interviewing all U. S. residents with telephones. Where the answers of subgroups are reported, the sampling error would be higher. Because of non-response (refusals to participate, etc.), standard calculations of sampling error are apt to understate the actual extent to which survey results are at variance with the true population values. Surveys are also subject to errors from sources other than sampling. While every effort is made to identify such errors, they are often difficult or impossible to measure. Readers making use of the results are urged to be mindful of the limitations inherent in survey research.

VCU Life Sciences Survey 2007
National survey of U.S. adults
November 26 to December 9, 2007
Number of Respondents: 1000

Please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements: (Q1 through Q4 asked in random order)¹

Q1. Scientific research these days doesn't pay enough attention to the moral values of society.

	2007	2006	2005	2004	2003	2002	2001
Strongly agree	27%	23%	25%	25%	28%	29%	28%
Somewhat agree	36%	33%	31%	36%	35%	40%	45%
Somewhat disagree	21%	25%	23%	22%	23%	20%	15%
Strongly disagree	10%	15%	14%	12%	9%	9%	8%
Don't know/Refused	6%	5%	7%	6%	5%	2%	6%

Q2. Scientific research is essential for improving the quality of human lives.

	2007	2006	2005	2004	2003	2002
Strongly agree	62%	60%	58%	56%	59%	48%
Somewhat agree	30%	30%	29%	36%	31%	42%
Somewhat disagree	4%	5%	7%	5%	6%	6%
Strongly disagree	3%	3%	4%	2%	3%	3%
Don't know /Refused	2%	2%	3%	1%	2%	1%

Q3. Scientific research has created as many problems for society as it has solutions

	2007	2006	2005	2004	2003	2002	2001
Strongly agree	17%	16%	16%	17%	19%	18%	18%
Somewhat agree	36%	35%	36%	34%	36%	41%	36%
Somewhat disagree	26%	29%	26%	30%	29%	28%	26%
Strongly disagree	16%	16%	15%	15%	14%	11%	14%
Don't know/Refused	6%	4%	6%	4%	3%	3%	6%

Q4. New technology used in medicine allows people to live longer and better.

	2007	2006	2005	2004	2003	2002
Strongly agree	57%	61%	58%	63%	60%	57%
Somewhat agree	33%	29%	30%	29%	31%	34%
Somewhat disagree	6%	6%	7%	5%	5%	6%
Strongly disagree	3%	3%	4%	2%	4%	2%
Don't know/Refused	2%	1%	3%	0%	1%	1%

¹ Percentages may add to 99 or 101 due to rounding. Cells that are blank contain no cases. Cells with a zero percent entry contain cases, but the percentage is less than 0.5%.

Q5. Which comes closer to your view? Decisions about science and technology should be based PRIMARILY on ...
(Rotate response options 1 and 2)

	2007
An analysis of the risks and benefits involved	51%
The moral and ethical issues involved	32%
Neither/Both (volunteered)	9%
Don't know/Refused	8%

Q6. How clear are you, personally, on the difference between: stem cells that come from human embryos; stem cells that come from adults; and stem cells that come from other sources?

	2007	2006*	2005*
Very clear	21%	23%	22%
Somewhat clear	40%	36%	44%
Not very clear	23%	21%	17%
Not at all clear	15%	18%	15%
Don't know/Refused	0%	1%	2%

*Wording in 2006, 2005 asked: "...and stem cells that come from other sources such as an umbilical cord?"

Q7. How much attention do you pay to news reports about medical research involving embryonic stem cells— a lot, some, not much, or none at all?

	2007
A lot	21%
Some	46%
Not much	22%
Not at all	10%
Don't know/Refused	0%

Q8. On the whole, how much do you favor or oppose medical research that uses stem cells from human embryos—Do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?

	2007	2006	2005	2004	2003	2002	2001
Strongly favor	21%	23%	27%	24%	17%	12%	17%
Somewhat favor	33%	31%	31%	29%	30%	23%	31%
Somewhat oppose	17%	17%	14%	14%	21%	22%	21%
Strongly oppose	22%	20%	18%	22%	23%	29%	22%
Don't know/Refused	8%	8%	11%	11%	9%	15%	9%

Q9. Which do you think is MOST important?

	2007
Conducting stem cell research that might result in new medical advances	42%
Making sure that no human embryos are destroyed in this research	46%
Neither/Both (volunteered)	4%
Don't know/Refused	9%

Q10. Do you favor or oppose medical research that uses stem cells from sources that do NOT involve human embryos—strongly favor, somewhat favor, somewhat oppose, strongly oppose?

	2007
Strongly favor	36%
Somewhat favor	39%
Somewhat oppose	9%
Strongly oppose	8%
Don't know/Refused	8%

Q11. Recently, results of new research showed that human stem cells can also be made from adult skin cells. Did you happen to hear anything about that research or not?

	2007
Yes	38%
No	62%
Don't know/Refused	0%

Q12. Do you think research showing stem cells can be made from adult skin cells means that human embryonic stem cell research is no longer necessary OR do you think both kinds of research are still needed?

	2007
Embryonic stem cell research no longer necessary	22%
Both kinds of research still needed	63%
Don't know/Refused	14%

On another topic.

Q13. The technology now exists to clone or genetically alter animals. How much do you favor or oppose allowing the same thing to be done in humans—do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?

	2007	2006	2005	2004	2003	2002	2001
Strongly favor	4%	4%	3%	2%	4%	6%	4%
Somewhat favor	12%	13%	12%	11%	9%	10%	10%
Somewhat oppose	20%	19%	18%	17%	19%	16%	18%
Strongly oppose	61%	60%	63%	66%	65%	65%	64%
Don't know/Refused	4%	4%	4%	4%	2%	3%	3%

Q14. Do you favor or oppose using human cloning technology IF it is used ONLY to help medical research develop new treatments for disease—do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?

	2007	2006	2005	2004	2003	2002
Strongly favor	19%	19%	17%	16%	21%	21%
Somewhat favor	28%	26%	26%	26%	29%	24%
Somewhat oppose	15%	16%	16%	18%	16%	13%
Strongly oppose	32%	35%	35%	38%	32%	38%
Don't know/Refused	5%	4%	6%	3%	3%	3%

Q15. There are several different terms used when it comes to human cloning technology. How clear are you, personally, on the difference between human reproductive cloning and human therapeutic cloning
—Very clear, somewhat clear, not very clear, or not at all clear?

	2007	2006	2005	2004	2003	2002
Very clear	7%	7%	10%	8%	8%	11%
Somewhat clear	21%	22%	23%	26%	26%	31%
Not very clear	32%	35%	31%	34%	32%	29%
Not at all clear	39%	35%	36%	30%	33%	28%
Don't know/Refused	1%	1%	1%	2%	0%	2%

Q16. Over the past few months, how much, if at all, have you thought about issues to do with genes and genetics?

	2007
A great deal /Quite a lot	19%
A small amount	29%
Not too much/Not at all	51%
Don't know/Refused	1%

How much do you agree or disagree with the following statements? (Do you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with this statement?) (Q17 through Q19 asked in random order)

Q17. Those in charge of new developments in genetic science cannot be trusted to act in society's interests.

	2007
Strongly agree/Agree	27%
Neither agree nor disagree	31%
Disagree/Strongly disagree	34%
Don't know/Refused	9%

Q18. Rules set by government will keep us safe from any risks linked to modern genetic science.

	2007
Strongly agree/Agree	16%
Neither agree nor disagree	23%
Disagree/Strongly disagree	57%
Don't know/Refused	4%

Q19. Modern genetic science is so complex that public involvement in policy decisions is not realistic.

	2007
Strongly agree/Agree	32%
Neither agree nor disagree	24%
Disagree/Strongly disagree	38%
Don't know/Refused	5%

Q20. In general, would you say medical research on genes and genetics has a positive affect on your life, a negative affect, or doesn't it affect your life one way or the other?

	2007
Positive	42%
Negative	2%
Doesn't affect	51%
Don't know/Refused	5%

Q21. In general, do you favor or oppose using animals in medical research— strongly favor, somewhat favor, somewhat oppose, or strongly oppose?

	2007
Strongly favor	21%
Somewhat favor	41%
Somewhat oppose	18%
Strongly oppose	17%
Don't know/Refused	3%

Q22. How well informed are you about scientific discoveries—Are you very informed, somewhat informed, not too informed*, or not at all informed?

	2007	2006	2005	2004	2003	2002	2001
Very informed	9%	10%	11%	10%	9%	7%	11%
Somewhat informed	59%	64%	63%	64%	63%	57%	60%
Not too informed	27%	20%	20%	22%	22%	29%	24%
Not at all informed	5%	6%	5%	4%	6%	6%	4%
Don't know/Refused	0%	0%	1%	0%	0%	0%	1%

*Wording 2001 to 2006 asked "not very informed"

Q23. How well informed are you about medical discoveries—Are you very informed, somewhat informed, not too informed*, or not at all informed?

	2007	2006	2005	2004	2003	2002	2001
Very informed	9%	13%	13%	9%	10%	7%	11%
Somewhat informed	64%	64%	66%	67%	65%	60%	64%
Not too informed	23%	18%	16%	19%	20%	28%	22%
Not at all informed	4%	5%	4%	4%	4%	5%	3%
Don't know/Refused	1%	0%	0%	0%	0%	0%	0%

*Wording 2001 to 2006 asked "not very informed"

Q24. How often do you pay attention to news reports about politics and government—regularly, seldom, hardly ever, or never?

	2007
Regularly	61%
Seldom	26%
Hardly ever	10%
Never	3%
Don't know/Refused	1%

Q25. How often do you pay attention to news reports about developments in science—regularly, seldom, hardly ever, or never?

	2007	2006	2005	2004
Regularly	53%	63%	60%	57%
Seldom	35%	26%	27%	32%
Hardly ever	9%	7%	10%	7%
Never	3%	3%	2%	2%
Don't know/Refused	1%	1%	1%	0%

Q26. Which of these comes closest to your views about abortion?: A woman should be able to get an abortion if she decides she wants one no matter what the reason; abortion should only be legal in certain circumstances, such as when a woman's health is endangered or when the pregnancy results from rape or incest; or abortion should be illegal in all circumstances.

	2007	2006	2005	2004	2003	2002	2001
Woman should be able to decide-any reason	34%	37%	39%	32%	37%	29%	37%
Should be legal in certain circumstances	45%	45%	44%	45%	43%	47%	44%
Should be illegal in all circumstances	17%	15%	12%	17%	15%	18%	14%
Don't know/ Refused	4%	3%	4%	6%	5%	6%	5%

Q27. How much of the time do you think you can trust the federal government to do what is right?

	2007
Just about always	1%
Most of the time	16%
Only some of the time	76%
Don't know/Refused	6%

Q28. Which comes closer to your view? ...

	2007
Government regulation of scientific research is necessary to protect the public interest	46%
Government regulation usually does more harm than good	39%
Neither/Both (volunteered)	5%
Don't know/Refused	11%

SELECTED BACKGROUND QUESTIONS ON THE SURVEY

Q33. How often do you attend religious services - more than once a week, once a week, once or twice a month, a few times a year, seldom, or never?

	2007	2006	2005	2004	2003	2002	2001
More than once a week	15%	13%	15%	18%	16%	17%	16%
Once a week	25%	27%	26%	23%	24%	26%	24%
Once or twice a month	14%	14%	15%	15%	14%	15%	16%
A few times a year	17%	19%	16%	19%	20%	16%	16%
Seldom	17%	13%	16%	14%	15%	15%	17%
Never	9%	12%	10%	9%	11%	10%	9%
Don't know/Refused	2%	1%	2%	1%	1%	1%	1%

Q.34/Q35. Whether or not you attend services, do you consider religion to be an important part of your life, or not? (IF YES) Would you say your religious beliefs provide some guidance in your day-to-day living, quite a bit of guidance, or a great deal of guidance in your day-to-day living?

	2007	2006	2005	2004	2003	2002	2001
A great deal of guidance	42%	38%	51%	45%	43%	44%	41%
Quite a bit of guidance	21%	21%	17%	21%	20%	22%	23%
Some guidance	18%	19%	17%	18%	20%	16%	19%
Not important	16%	20%	15%	14%	15%	15%	14%
Don't know /Refused	3%	2%	0%	2%	2%	2%	2%

Q36. Which of these statements comes closest to describing your feelings about the Bible—The Bible is the actual Word of God, The Bible is the Word of God but not everything in it should be taken literally, or The Bible is a book written by men and is not the Word of God?

	2007	2006	2005	2004	2003	2002	2001
Actual word of God	42%	43%	44%	44%	42%	44%	42%
Not everything to be taken literally	36%	38%	33%	36%	37%	35%	36%
Written by men	15%	15%	14%	14%	14%	13%	14%
Don't know/Refused	7%	5%	8%	7%	6%	7%	7%

Q.40 Have you or has anyone in your family had a disease or chronic medical condition that is strongly related to genetic factors?

	2007
Yes	38%
No	56%
Don't know/Refused	6%

Tables of Results by Selected Subgroups²

		Q.1 Scientific research these days doesn't pay enough attention to the moral values of society. (Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with that statement?)					Number of cases
		STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE	DON'T KNOW	
All adults		27%	36%	21%	10%	6%	1000
Gender	Men	26%	35%	21%	11%	7%	476
	Women	28%	37%	21%	9%	5%	524
Age	18-44	23%	40%	22%	9%	5%	301
	45-64	26%	36%	22%	11%	5%	426
	65 and older	36%	31%	15%	10%	9%	251
Education	High school or less	37%	38%	12%	6%	7%	266
	Some college	24%	38%	24%	9%	4%	297
	College graduate or more	15%	32%	31%	17%	6%	423
Religious Guidance in Daily Life	Great deal	39%	33%	16%	7%	5%	424
	Quite a bit	25%	37%	22%	9%	6%	219
	Some guidance	17%	39%	28%	8%	9%	179
	Not important	11%	40%	25%	22%	1%	150
Views on Abortion	Woman should be able to decide-any reason	16%	29%	31%	20%	3%	391
	Should be legal in certain circumstances	28%	43%	17%	5%	6%	417
	Should be illegal-all circumstances	48%	35%	10%	4%	4%	151
Scientific and medical discoveries	More informed	27%	32%	23%	13%	5%	630
	Less informed	27%	42%	18%	6%	7%	359
Self/family had a condition related to genetic factors?	Yes	23%	39%	22%	12%	5%	397
	No	31%	35%	20%	9%	5%	541
Affect on your life from genetic research	Positive	21%	38%	23%	15%	3%	445
	Doesn't affect	31%	36%	20%	6%	6%	478
Party identification	Democrat	26%	35%	24%	13%	3%	301
	Republican	28%	39%	23%	5%	5%	280
	Independent	27%	38%	18%	11%	6%	341

² In the following tables, cells that are blank contain no cases. Cells with a zero percent entry contain cases, but the percentage is less than 0.5%. Percentages may add to 99 or 101 due to rounding.

		Q.2 Scientific research is essential for improving the quality of human lives. (Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with that statement?)					Number of cases
		STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE	DON'T KNOW	
All adults		62%	30%	4%	3%	2%	1000
Gender	Men	60%	31%	5%	3%	1%	476
	Women	63%	30%	2%	3%	2%	524
Age	18-44	59%	33%	3%	3%	1%	301
	45-64	66%	27%	3%	2%	2%	426
	65 and older	62%	28%	5%	3%	3%	251
Education	High school or less	51%	38%	5%	4%	3%	266
	Some college	64%	30%	3%	3%	1%	297
	College graduate or more	76%	20%	3%	1%	1%	423
Religious Guidance in Daily Life	Great deal	60%	30%	4%	5%	1%	424
	Quite a bit	56%	39%	2%	1%	2%	219
	Some guidance	67%	24%	5%	2%	2%	179
	Not important	69%	25%	3%	1%	1%	150
Views on Abortion	Woman should be able to decide-any reason	75%	21%	2%	1%	0%	391
	Should be legal in certain circumstances	57%	33%	5%	3%	2%	417
	Should be illegal-all circumstances	51%	38%	3%	4%	3%	151
Scientific and medical discoveries	More informed	69%	26%	3%	2%	1%	630
	Less informed	52%	37%	5%	4%	3%	359
Self/family had a condition related to genetic factors?	Yes	68%	27%	3%	2%	1%	397
	No	59%	32%	4%	4%	2%	541
Affect on your life from genetic research	Positive	74%	23%	2%	1%	1%	445
	Doesn't affect	55%	35%	5%	3%	2%	478
Party identification	Democrat	67%	25%	3%	3%	2%	301
	Republican	56%	39%	3%	1%	1%	280
	Independent	63%	28%	4%	4%	1%	341

		Q.3. Scientific research has created as many problems for society as it has solutions. (Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with that statement?)					Number of cases
		STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE	DON'T KNOW	
All adults		17%	36%	26%	16%	6%	1000
Gender	Men	15%	34%	25%	19%	6%	476
	Women	18%	37%	26%	12%	6%	524
Age	18-44	15%	35%	31%	13%	6%	301
	45-64	14%	38%	23%	21%	4%	426
	65 and older	27%	34%	16%	12%	10%	251
Education	High school or less	21%	40%	20%	9%	10%	266
	Some college	15%	36%	29%	16%	3%	297
	College graduate or more	12%	28%	31%	26%	4%	423
Religious Guidance in Daily Life	Great deal	20%	41%	20%	13%	7%	424
	Quite a bit	16%	29%	37%	12%	6%	219
	Some guidance	15%	35%	25%	17%	8%	179
	Not important	10%	34%	27%	24%	4%	150
Views on Abortion	Woman should be able to decide-any reason	15%	31%	26%	24%	4%	391
	Should be legal in certain circumstances	16%	38%	27%	10%	8%	417
	Should be illegal-all circumstances	22%	39%	22%	13%	5%	151
Scientific and medical discoveries	More informed	17%	32%	27%	21%	3%	630
	Less informed	16%	42%	24%	8%	10%	359
Self/family had a condition related to genetic factors?	Yes	20%	31%	26%	20%	3%	397
	No	15%	40%	25%	12%	8%	541
Affect on your life from genetic research	Positive	13%	30%	31%	20%	5%	445
	Doesn't affect	18%	40%	22%	13%	7%	478
Party identification	Democrat	17%	34%	23%	18%	8%	301
	Republican	15%	34%	34%	13%	3%	280
	Independent	18%	40%	23%	14%	5%	341

		Q.4 New technology used in medicine allows people to live longer and better. (Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with that statement?)					Number of cases
		STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE	DON'T KNOW	
All adults		57%	33%	6%	3%	2%	1000
Gender	Men	58%	30%	5%	3%	3%	476
	Women	55%	35%	6%	3%	1%	524
Age	18-44	55%	33%	6%	4%	2%	301
	45-64	56%	34%	6%	2%	2%	426
	65 and older	63%	30%	3%	2%	1%	251
Education	High school or less	51%	32%	10%	6%	2%	266
	Some college	58%	36%	3%	1%	2%	297
	College graduate or more	64%	32%	2%	0%	1%	423
Religious Guidance in Daily Life	Great deal	54%	34%	8%	3%	2%	424
	Quite a bit	62%	31%	3%	2%	3%	219
	Some guidance	51%	39%	4%	5%	1%	179
	Not important	66%	23%	6%	4%	1%	150
Views on Abortion	Woman should be able to decide-any reason	62%	31%	4%	2%	1%	391
	Should be legal in certain circumstances	57%	32%	7%	3%	2%	417
	Should be illegal-all circumstances	48%	38%	6%	6%	2%	151
Scientific and medical discoveries	More informed	60%	30%	5%	3%	2%	630
	Less informed	51%	37%	6%	3%	2%	359
Self/family had a condition related to genetic factors?	Yes	55%	34%	6%	2%	2%	397
	No	58%	31%	5%	4%	2%	541
Affect on your life from genetic research	Positive	62%	31%	5%	1%	1%	445
	Doesn't affect	55%	33%	6%	5%	2%	478
Party identification	Democrat	61%	28%	7%	2%	2%	301
	Republican	61%	36%	2%	1%	0%	280
	Independent	52%	32%	9%	5%	2%	341

		Q.5. Which comes closer to your view? Decisions about science and technology should be based PRIMARILY on ...				
		An analysis of the risks and benefits involved	The moral and ethical issues involved	Neither/Both (VOL)	DON'T KNOW	Number of cases
All adults		51%	32%	9%	8%	1000
Gender	Men	51%	32%	9%	7%	476
	Women	50%	32%	9%	9%	524
Age	18-44	55%	30%	8%	7%	301
	45-64	51%	33%	11%	5%	426
	65 and older	40%	36%	9%	15%	251
Education	High school or less	39%	41%	6%	13%	266
	Some college	57%	28%	11%	3%	297
	College graduate or more	62%	23%	11%	4%	423
Religious Guidance in Daily Life	Great deal	38%	48%	8%	7%	424
	Quite a bit	48%	30%	13%	9%	219
	Some guidance	64%	19%	6%	12%	179
	Not important	72%	11%	11%	6%	150
Views on Abortion	Woman should be able to decide-any reason	70%	17%	9%	4%	391
	Should be legal in certain circumstances	48%	34%	8%	10%	417
	Should be illegal-all circumstances	22%	60%	12%	6%	151
Scientific and medical discoveries	More informed	58%	25%	9%	7%	630
	Less informed	40%	42%	9%	9%	359
Self/family had a condition related to genetic factors?	Yes	56%	30%	8%	6%	397
	No	48%	35%	9%	9%	541
Affect on your life from genetic research	Positive	63%	23%	9%	5%	445
	Doesn't affect	42%	39%	8%	11%	478
Party identification	Democrat	53%	29%	8%	9%	301
	Republican	43%	42%	9%	6%	280
	Independent	56%	27%	9%	8%	341

		Q.6 How clear are you, personally, on the difference between: -- stem cells that come from human embryos; stem cells that come from adults; and stem cells that come from other sources?					Number of cases
		VERY CLEAR	SOMEWHAT CLEAR	NOT VERY CLEAR	NOT AT ALL CLEAR	DON'T KNOW	
All adults		21%	40%	23%	15%	0%	1000
Gender	Men	22%	43%	19%	15%	0%	476
	Women	20%	38%	25%	16%	1%	524
Age	18-44	22%	44%	22%	12%		301
	45-64	25%	38%	23%	14%	1%	426
	65 and older	15%	33%	24%	25%	2%	251
Education	High school or less	14%	35%	27%	24%	0%	266
	Some college	21%	45%	23%	10%	0%	297
	College graduate or more	33%	44%	16%	7%	1%	423
Religious Guidance in Daily Life	Great deal	21%	40%	22%	17%	0%	424
	Quite a bit	20%	41%	23%	16%		219
	Some guidance	17%	46%	23%	13%	1%	179
	Not important	27%	38%	24%	10%	1%	150
Views on Abortion	Woman should be able to decide-any reason	28%	40%	21%	10%	0%	391
	Should be legal in certain circumstances	15%	41%	25%	19%	1%	417
	Should be illegal-all circumstances	21%	42%	20%	16%	0%	151
Scientific and medical discoveries	More informed	32%	45%	16%	7%	0%	630
	Less informed	6%	33%	33%	27%	0%	359
Party identification	Democrat	23%	35%	23%	19%	0%	301
	Republican	21%	41%	24%	13%	1%	280
	Independent	21%	42%	23%	14%	0%	341

		Q.7 How much attention do you pay to news about medical research involving embryonic stem cells?				Number of cases
		A lot	Some	Not much/ Not at all	Don't Know	
All adults		21%	46%	32%	0%	1000
Gender	Men	21%	44%	34%	1%	476
	Women	21%	48%	30%	0%	524
Age	18-44	19%	45%	36%		301
	45-64	24%	50%	26%	0%	426
	65 and older	23%	41%	34%	1%	251
Education	High school or less	18%	36%	46%		266
	Some college	22%	54%	24%	0%	297
	College graduate or more	26%	53%	20%	1%	423
Religious Guidance in Daily Life	Great deal	22%	44%	34%	0%	424
	Quite a bit	18%	54%	28%		219
	Some guidance	24%	42%	34%	0%	179
	Not important	22%	47%	31%	0%	150
Views on Abortion	Woman should be able to decide-any reason	28%	49%	22%	1%	391
	Should be legal in certain circumstances	15%	47%	38%	0%	417
	Should be illegal-all circumstances	25%	40%	35%		151
Scientific and medical discoveries	More informed	29%	52%	19%	0%	630
	Less informed	10%	38%	52%		359
Party identification	Democrat	23%	45%	32%		301
	Republican	24%	50%	26%	1%	280
	Independent	18%	45%	36%	1%	341
Clear about differences between types of stem cells?	Very clear	51%	35%	12%	1%	236
	Somewhat clear	18%	59%	22%	0%	411
	Not very/Not at all clear	8%	39%	54%		346

		Q.8. On the whole, how much do you favor or oppose medical research that uses stem cells from human embryos - do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?					Number of cases
		STRONGLY FAVOR	SOMEWHAT FAVOR	SOMEWHAT OPPOSE	STRONGLY OPPOSE	DON'T KNOW	
All adults		21%	33%	17%	22%	8%	1000
Gender	Men	20%	33%	18%	21%	8%	476
	Women	21%	32%	16%	23%	8%	524
Age	18-44	21%	33%	18%	22%	7%	301
	45-64	24%	34%	14%	22%	7%	426
	65 and older	14%	31%	20%	22%	13%	251
Education	High school or less	11%	29%	21%	28%	11%	266
	Some college	25%	38%	14%	16%	6%	297
	College graduate or more	30%	33%	14%	18%	6%	423
Religious Guidance in Daily Life	Great deal	13%	27%	18%	35%	7%	424
	Quite a bit	17%	32%	21%	18%	12%	219
	Some guidance	29%	40%	15%	6%	9%	179
	Not important	36%	38%	11%	13%	3%	150
Views on Abortion	Woman should be able to decide-any reason	43%	36%	10%	7%	4%	391
	Should be legal in certain circumstances	10%	36%	22%	21%	10%	417
	Should be illegal-all circumstances	8%	16%	18%	53%	6%	151
Party identification	Democrat	31%	34%	17%	11%	7%	301
	Republican	12%	30%	20%	32%	6%	280
	Independent	17%	37%	16%	22%	9%	341
Clear about differences between types of stem cells?	Very clear	42%	16%	9%	28%	4%	236
	Somewhat clear	20%	37%	18%	19%	6%	411
	Not very/Not at all clear	10%	37%	20%	20%	13%	346
Attention to news about embryonic stem cell research	A lot	40%	17%	11%	27%	5%	235
	Some	24%	37%	16%	18%	5%	488
	Not much/Not at all	4%	37%	21%	23%	14%	271

		Q.9. Which do you think is MOST important: conducting stem cell research that might result in new medical advances OR making sure that no human embryos are destroyed in this research?				
		Medical advances	No embryos destroyed	Neither/Both (VOL.)	Don't Know	Number of cases
All adults		42%	46%	4%	9%	1000
Gender	Men	46%	39%	4%	10%	476
	Women	37%	52%	3%	8%	524
Age	18-44	40%	49%	4%	7%	301
	45-64	48%	42%	4%	6%	426
	65 and older	35%	46%	2%	17%	251
Education	High school or less	33%	51%	6%	10%	266
	Some college	44%	46%	2%	8%	297
	College graduate or more	53%	38%	3%	7%	423
Religious Guidance in Daily Life	Great deal	27%	61%	3%	8%	424
	Quite a bit	34%	51%	4%	11%	219
	Some guidance	57%	28%	6%	10%	179
	Not important	71%	21%	2%	6%	150
Views on Abortion	Woman should be able to decide-any reason	71%	20%	4%	5%	391
	Should be legal in certain circumstances	32%	52%	5%	11%	417
	Should be illegal-all circumstances	12%	82%	0%	6%	151
Party identification	Democrat	49%	42%	3%	6%	301
	Republican	31%	55%	5%	9%	280
	Independent	45%	43%	2%	10%	341
Attention to news about embryonic stem cell research	A lot	48%	40%	5%	6%	235
	Some	44%	45%	3%	8%	488
	Not much/Not at all	34%	50%	4%	12%	271
Clear about differences between types of stem cells?	Very clear	50%	41%	6%	4%	236
	Somewhat clear	45%	44%	2%	8%	411
	Not very/Not at all clear	33%	50%	4%	13%	346

		Q.10 Do you favor or oppose medical research that uses stem cells from sources that do NOT involve human embryos-strongly favor, somewhat favor, somewhat oppose, strongly oppose?					Number of cases
		STRONGLY FAVOR	SOMEWHAT FAVOR	SOMEWHAT OPPOSE	STRONGLY OPPOSE	DON'T KNOW	
All adults		36%	39%	9%	8%	8%	1000
Gender	Men	40%	37%	8%	8%	8%	476
	Women	32%	41%	11%	9%	7%	524
Age	18-44	33%	42%	10%	8%	7%	301
	45-64	42%	36%	9%	6%	7%	426
	65 and older	29%	38%	9%	12%	12%	251
Education	High school or less	23%	41%	13%	15%	9%	266
	Some college	36%	46%	7%	5%	6%	297
	College graduate or more	54%	30%	6%	2%	8%	423
Religious Guidance in Daily Life	Great deal	33%	35%	13%	12%	7%	424
	Quite a bit	36%	44%	7%	6%	7%	219
	Some guidance	34%	43%	6%	5%	11%	179
	Not important	43%	39%	8%	7%	4%	150
Views on Abortion	Woman should be able to decide-any reason	46%	35%	5%	7%	6%	391
	Should be legal in certain circumstances	32%	42%	11%	7%	8%	417
	Should be illegal-all circumstances	23%	43%	15%	15%	4%	151
Party identification	Democrat	40%	34%	10%	11%	5%	301
	Republican	36%	40%	8%	6%	10%	280
	Independent	33%	42%	11%	6%	7%	341
Attention to news about embryonic stem cell research	A lot	53%	25%	6%	8%	9%	235
	Some	38%	44%	8%	5%	5%	488
	Not much/Not at all	20%	42%	13%	14%	11%	271
Clear about differences between types of stem cells?	Very clear	58%	23%	7%	6%	6%	236
	Somewhat clear	37%	42%	9%	7%	5%	411
	Not very/Not at all clear	22%	45%	12%	12%	10%	346

		Q.11 Recently, results of new research showed that human stem cells can also be made from adult skin cells. Did you happen to hear anything about that research, or not?			
		Yes	No	DON'T KNOW	Number of cases
All adults		38%	62%	0%	1000
Gender	Men	41%	59%	0%	476
	Women	35%	65%	1%	524
Age	18-44	29%	71%	0%	301
	45-64	46%	53%	1%	426
	65 and older	44%	55%	1%	251
Education	High school or less	24%	75%	0%	266
	Some college	39%	60%	0%	297
	College graduate or more	55%	44%	1%	423
Religious Guidance in Daily Life	Great deal	35%	64%	1%	424
	Quite a bit	41%	59%	0%	219
	Some guidance	35%	65%		179
	Not important	42%	57%	1%	150
Views on Abortion	Woman should be able to decide-any reason	47%	53%		391
	Should be legal in certain circumstances	33%	66%	1%	417
	Should be illegal-all circumstances	30%	69%	1%	151
Party identification	Democrat	32%	68%		301
	Republican	42%	56%	2%	280
	Independent	40%	59%	0%	341
Attention to news about embryonic stem cell research	A lot	64%	36%		235
	Some	40%	60%	1%	488
	Not much/Not at all	17%	82%	1%	271
Clear about differences between types of stem cells?	Very clear	63%	37%		236
	Somewhat clear	41%	58%	1%	411
	Not very/Not at all clear	20%	80%	0%	346

		Q.12 Do you think research showing stem cells can be made from adult skin cells means that human embryonic stem cell research is no longer necessary OR do you think both kinds of research are still needed?			
		Embryonic stem cell research no longer necessary	Both kinds of research still needed	DON'T KNOW	Number of cases
All adults		22%	63%	14%	1000
Gender	Men	24%	65%	12%	476
	Women	21%	62%	17%	524
Age	18-44	23%	67%	11%	301
	45-64	24%	61%	15%	426
	65 and older	20%	59%	21%	251
Education	High school or less	25%	58%	18%	266
	Some college	21%	71%	8%	297
	College graduate or more	20%	65%	15%	423
Religious Guidance in Daily Life	Great deal	32%	54%	14%	424
	Quite a bit	27%	62%	11%	219
	Some guidance	9%	73%	19%	179
	Not important	8%	80%	12%	150
Views on Abortion	Woman should be able to decide-any reason	9%	80%	11%	391
	Should be legal in certain circumstances	23%	63%	14%	417
	Should be illegal-all circumstances	48%	39%	13%	151
Party identification	Democrat	12%	77%	11%	301
	Republican	36%	49%	15%	280
	Independent	17%	66%	17%	341
Heard about new research on stem cells from adult skin?	Yes	27%	63%	10%	473
	No	19%	64%	17%	519
Attention to news about embryonic stem cell research	A lot	23%	72%	5%	235
	Some	22%	64%	13%	488
	Not much/Not at all	22%	57%	21%	271
Clear about differences between types of stem cells?	Very clear	26%	67%	7%	236
	Somewhat clear	22%	68%	10%	411
	Not very/Not at all clear	20%	57%	23%	346

		Q.13. The technology now exists to clone or genetically alter animals. How much do you favor or oppose allowing the same thing to be done in humans - do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?					Number of cases
		STRONGLY FAVOR	SOMEWHAT FAVOR	SOMEWHAT OPPOSE	STRONGLY OPPOSE	DON'T KNOW	
All adults		4%	12%	20%	61%	4%	1000
Gender	Men	5%	17%	21%	53%	4%	476
	Women	3%	7%	18%	68%	4%	524
Age	18-44	5%	14%	22%	56%	3%	301
	45-64	3%	9%	20%	63%	4%	426
	65 and older	2%	11%	12%	69%	6%	251
Education	High school or less	3%	12%	18%	63%	4%	266
	Some college	4%	14%	20%	60%	2%	297
	College graduate or more	6%	11%	22%	57%	4%	423
Religious Guidance in Daily Life	Great deal	4%	5%	11%	75%	4%	424
	Quite a bit	1%	13%	22%	60%	3%	219
	Some guidance	4%	15%	27%	51%	3%	179
	Not important	6%	24%	31%	35%	5%	150
Views about the Bible	Actual Word of God	2%	9%	13%	73%	3%	380
	Word of God, not everything to be taken literally	4%	13%	24%	56%	2%	382
	Written by men	7%	18%	26%	43%	6%	170
Scientific and medical discoveries	More informed	4%	13%	17%	62%	4%	630
	Less informed	4%	11%	23%	59%	3%	359
Self/family had a condition related to genetic factors?	Yes	4%	13%	19%	60%	4%	397
	No	4%	11%	21%	62%	3%	541
Affect on your life from genetic research	Positive	7%	10%	24%	55%	5%	445
	Doesn't affect	2%	13%	17%	65%	3%	478
Clear about differences between types of cloning?	Very/Somewhat clear	7%	15%	23%	52%	3%	273
	Not very/Not at all clear	3%	10%	19%	64%	4%	718

		Q.14. Do you favor or oppose using human cloning technology IF it is used ONLY to help medical research develop new treatments for disease-do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?					Number of cases
		STRONGLY FAVOR	SOMEWHAT FAVOR	SOMEWHAT OPPOSE	STRONGLY OPPOSE	DON'T KNOW	
All adults		19%	28%	15%	32%	5%	1000
Gender	Men	24%	32%	15%	25%	5%	476
	Women	15%	25%	16%	39%	5%	524
Age	18-44	19%	30%	15%	33%	3%	301
	45-64	18%	26%	17%	33%	6%	426
	65 and older	18%	26%	17%	31%	8%	251
Education	High school or less	18%	28%	15%	35%	4%	266
	Some college	18%	27%	17%	33%	5%	297
	College graduate or more	21%	28%	17%	29%	5%	423
Religious Guidance in Daily Life	Great deal	14%	18%	16%	47%	5%	424
	Quite a bit	15%	30%	16%	35%	3%	219
	Some guidance	26%	39%	13%	19%	4%	179
	Not important	32%	40%	15%	7%	6%	150
Views about the Bible	Actual Word of God	14%	20%	16%	47%	4%	380
	Word of God, not everything to be taken literally	21%	33%	17%	26%	3%	382
	Written by men	27%	35%	15%	15%	8%	170
Scientific and medical discoveries	More informed	22%	27%	13%	33%	4%	630
	Less informed	14%	30%	19%	31%	6%	359
Self/family had a condition related to genetic factors?	Yes	21%	28%	14%	31%	6%	397
	No	17%	30%	16%	33%	4%	541
Affect on your life from genetic research	Positive	24%	28%	14%	29%	6%	445
	Negative	2%	10%	28%	57%	3%	26
	Doesn't affect	16%	30%	16%	33%	4%	478
Clear about differences between types of cloning?	Very/Somewhat clear	27%	27%	14%	29%	3%	273
	Not very/Not at all clear	16%	29%	16%	33%	5%	718

		Q.15 There are several different terms used when it comes to human cloning technology. How clear are you personally on the difference between human reproductive cloning and human therapeutic cloning?			
		Very clear/ Somewhat clear	Not very/ Not at all clear	Don't Know	Number of cases
All adults		28%	71%	1%	1000
Gender	Men	29%	71%	1%	476
	Women	27%	71%	1%	524
Age	18-44	31%	68%	1%	301
	45-64	29%	70%	1%	426
	65 and older	18%	80%	1%	251
Education	High school or less	24%	74%	2%	266
	Some college	29%	70%	0%	297
	College graduate or more	32%	67%	0%	423
Scientific and medical discoveries	More informed	38%	61%	1%	630
	Less informed	13%	86%	1%	359
Self/family had a condition related to genetic factors?	Yes	34%	66%		397
	No	26%	73%	1%	541
Affect on your life from genetic research	Positive	33%	66%	1%	445
	Doesn't affect	25%	74%	1%	478

		Q.16 Over the past few months, how much, if at all, have you thought about issues to do with genes and genetics?				
		A great deal/ Quite a lot	A small amount	Not too much/ Not at all	Don't Know	Number of cases
All adults		19%	29%	51%	1%	1000
Gender	Men	15%	32%	53%	0%	476
	Women	23%	27%	49%	1%	524
Age	18-44	19%	28%	53%		301
	45-64	23%	33%	43%	1%	426
	65 and older	15%	26%	58%	2%	251
Education	High school or less	12%	21%	66%	1%	266
	Some college	23%	32%	45%	0%	297
	College graduate or more	27%	39%	33%	0%	423
Religious Guidance in Daily Life	Great deal	18%	30%	51%	1%	424
	Quite a bit	21%	30%	49%	0%	219
	Some guidance	16%	29%	55%		179
	Not important	23%	27%	49%	0%	150
Scientific and medical discoveries	More informed	26%	35%	38%	0%	630
	Less informed	10%	20%	70%	0%	359
Self/family had a condition related to genetic factors?	Yes	32%	35%	33%	0%	397
	No	11%	26%	63%	0%	541
Affect on your life from genetic research	Positive	29%	34%	37%	0%	445
	Doesn't affect	12%	26%	62%	0%	478
Party identification	Democrat	18%	28%	51%	2%	301
	Republican	19%	25%	56%	0%	280
	Independent	19%	33%	48%	0%	341

		Q.17 Those in charge of new developments in genetic science cannot be trusted to act in society's interests. (Do you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with that statement?)				
		Agree/ Strongly agree	Neither agree nor disagree	Disagree/ Strongly disagree	Don't Know	Number of cases
All adults		27%	31%	34%	9%	1000
Gender	Men	29%	30%	35%	6%	476
	Women	25%	31%	32%	11%	524
Age	18-44	30%	31%	33%	6%	301
	45-64	25%	31%	36%	8%	426
	65 and older	22%	29%	34%	15%	251
Education	High school or less	28%	28%	31%	13%	266
	Some college	29%	35%	31%	5%	297
	College graduate or more	22%	31%	42%	5%	423
Religious Guidance in Daily Life	Great deal	33%	28%	30%	9%	424
	Quite a bit	28%	27%	36%	8%	219
	Some guidance	18%	33%	38%	10%	179
	Not important	20%	38%	35%	7%	150
Scientific and medical discoveries	More informed	29%	28%	37%	6%	630
	Less informed	24%	35%	29%	12%	359
Self/family had a condition related to genetic factors?	Yes	27%	31%	35%	7%	397
	No	28%	32%	33%	7%	541
Affect on your life from genetic research	Positive	24%	27%	43%	7%	445
	Doesn't affect	29%	35%	28%	8%	478
Party identification	Democrat	26%	26%	40%	7%	301
	Republican	27%	33%	32%	9%	280
	Independent	26%	34%	33%	7%	341
How much have you thought about genes and genetics?	A great deal/Quite a lot	22%	24%	46%	7%	223
	A small amount	27%	32%	34%	7%	318
	Not too much/Not at all	29%	33%	29%	9%	451

		Q.18 Rules set by government will keep us safe from any risks linked to modern genetic science. (Do you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with that statement?)				
		Agree/ Strongly agree	Neither agree nor disagree	Disagree/ Strongly disagree	Don't Know	Number of cases
All adults		16%	23%	57%	4%	1000
Gender	Men	19%	22%	56%	3%	476
	Women	13%	24%	58%	4%	524
Age	18-44	17%	29%	52%	1%	301
	45-64	15%	17%	65%	3%	426
	65 and older	14%	21%	54%	10%	251
Education	High school or less	16%	25%	55%	4%	266
	Some college	18%	27%	53%	2%	297
	College graduate or more	14%	19%	64%	3%	423
Religious Guidance in Daily Life	Great deal	18%	20%	59%	3%	424
	Quite a bit	12%	28%	56%	4%	219
	Some guidance	16%	24%	58%	2%	179
	Not important	17%	25%	55%	3%	150
Scientific and medical discoveries	More informed	15%	21%	62%	2%	630
	Less informed	18%	27%	50%	5%	359
Self/family had a condition related to genetic factors?	Yes	12%	22%	63%	3%	397
	No	19%	25%	53%	3%	541
Affect on your life from genetic research	Positive	21%	16%	61%	2%	445
	Doesn't affect	13%	30%	54%	3%	478
Party identification	Democrat	19%	28%	51%	2%	301
	Republican	15%	21%	59%	5%	280
	Independent	15%	22%	60%	3%	341
How much have you thought about ... genes and genetics?	A great deal/Quite a lot	14%	12%	72%	2%	223
	A small amount	13%	25%	58%	3%	318
	Not too much/Not at all	19%	26%	51%	4%	451
Trust federal government	Always/most of time	30%	25%	43%	2%	192
	Only some of time	13%	23%	60%	4%	759

		Q.19 Modern genetic science is so complex that public involvement in policy decisions is not realistic. (Do you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with that statement?)				
		Agree/ Strongly agree	Neither agree nor disagree	Disagree/ Strongly disagree	Don't know	Number of cases
All adults		32%	24%	38%	5%	1000
Gender	Men	35%	19%	42%	4%	476
	Women	29%	29%	35%	7%	524
Age	18-44	34%	28%	35%	3%	301
	45-64	30%	19%	47%	4%	426
	65 and older	34%	23%	32%	11%	251
Education	High school or less	31%	28%	33%	8%	266
	Some college	32%	26%	39%	4%	297
	College graduate or more	34%	18%	46%	2%	423
Religious Guidance in Daily Life	Great deal	35%	23%	37%	5%	424
	Quite a bit	27%	26%	40%	7%	219
	Some guidance	33%	24%	39%	4%	179
	Not important	32%	23%	42%	2%	150
Scientific and medical discoveries	More informed	32%	23%	42%	3%	630
	Less informed	32%	27%	33%	8%	359
Self/family had a condition related to genetic factors?	Yes	31%	24%	41%	4%	397
	No	34%	24%	38%	5%	541
Affect on your life from genetic research	Positive	29%	27%	41%	3%	445
	Doesn't affect	35%	23%	37%	5%	478
Party identification	Democrat	34%	22%	38%	6%	301
	Republican	34%	23%	40%	2%	280
	Independent	30%	27%	37%	6%	341
How much have you thought about genes and genetics?	A great deal/Quite a lot	30%	22%	46%	2%	223
	A small amount	32%	26%	38%	4%	318
	Not too much/Not at all	33%	25%	36%	6%	451

		Q.20 In general, would you say medical research on genes and genetics has a positive affect on your life, a negative affect, or doesn't it affect your life one way or the other?				
		Positive	Negative	Doesn't affect	Don't Know	Number of cases
All adults		42%	2%	51%	5%	1000
Gender	Men	40%	3%	53%	5%	476
	Women	44%	2%	49%	5%	524
Age	18-44	44%	2%	52%	3%	301
	45-64	48%	3%	43%	6%	426
	65 and older	30%	2%	59%	9%	251
Education	High school or less	31%	2%	60%	7%	266
	Some college	56%	2%	41%	2%	297
	College graduate or more	49%	2%	44%	5%	423
Religious Guidance in Daily Life	Great deal	39%	2%	52%	7%	424
	Quite a bit	45%	2%	47%	5%	219
	Some guidance	43%	2%	55%	1%	179
	Not important	44%	3%	51%	2%	150
Scientific and medical discoveries	More informed	50%	2%	45%	4%	630
	Less informed	32%	2%	59%	6%	359
Self/family had a condition related to genetic factors?	Yes	57%	3%	38%	2%	397
	No	33%	2%	60%	5%	541
Party identification	Democrat	44%	2%	49%	6%	301
	Republican	42%	2%	53%	3%	280
	Independent	44%	3%	49%	4%	341
How much have you thought about ... genes and genetics?	A great deal/Quite a lot	63%	4%	31%	2%	223
	A small amount	49%	1%	46%	4%	318
	Not too much/Not at all	31%	2%	62%	6%	451

		Q.21 In general, do you favor or oppose using animals in medical research- strongly favor, somewhat favor, somewhat oppose, or strongly oppose?					Number of cases
		STRONGLY FAVOR	SOMEWHAT FAVOR	SOMEWHAT OPPOSE	STRONGLY OPPOSE	DON'T KNOW	
All adults		21%	41%	18%	17%	3%	1000
Gender	Men	29%	41%	16%	12%	2%	476
	Women	14%	41%	20%	21%	4%	524
Age	18-44	20%	39%	21%	18%	2%	301
	45-64	20%	48%	14%	14%	4%	426
	65 and older	23%	37%	17%	18%	5%	251
Education	High school or less	15%	35%	22%	24%	3%	266
	Some college	21%	51%	14%	13%	2%	297
	College graduate or more	30%	39%	16%	9%	5%	423
Religious Guidance in Daily Life	Great deal	18%	38%	18%	22%	3%	424
	Quite a bit	18%	49%	17%	12%	4%	219
	Some guidance	24%	43%	15%	16%	2%	179
	Not important	28%	36%	22%	11%	3%	150
Scientific and medical discoveries	More informed	24%	43%	12%	17%	3%	630
	Less informed	16%	38%	26%	18%	3%	359

		Q.27 Which comes closer to your view: government regulation of scientific research is necessary to protect the public interest OR government regulation usually does more harm than good?				
		Necessary to protect public interest	Usually does more harm than good	Neither/Both (VOL.)	DON'T KNOW	Number of cases
All adults		46%	39%	5%	11%	1000
Gender	Men	44%	42%	6%	9%	476
	Women	48%	35%	3%	13%	524
Age	18-44	47%	40%	5%	9%	301
	45-64	45%	38%	6%	11%	426
	65 and older	45%	35%	3%	18%	251
Education	High school or less	37%	44%	5%	14%	266
	Some college	49%	38%	4%	9%	297
	College graduate or more	58%	30%	5%	7%	423
Religious Guidance in Daily Life	Great deal	49%	36%	4%	12%	424
	Quite a bit	48%	37%	6%	8%	219
	Some guidance	43%	40%	4%	13%	179
	Not important	40%	47%	4%	9%	150
Scientific and medical discoveries	More informed	48%	38%	5%	10%	630
	Less informed	43%	41%	4%	13%	359
Self/family had a condition related to genetic factors?	Yes	49%	39%	5%	7%	397
	No	44%	39%	4%	13%	541
Affect on your life from genetic research	Positive	52%	36%	5%	7%	445
	Doesn't affect	41%	42%	3%	14%	478
Party identification	Democrat	46%	38%	1%	14%	301
	Republican	53%	32%	7%	8%	280
	Independent	42%	45%	5%	8%	341
Trust federal government	Always/most of time	76%	13%	1%	10%	192
	Only some of time	41%	43%	5%	11%	759

		Q.40 Have you or has anyone in your family had a disease or chronic medical condition that is strongly related to genetic factors?			
		Yes	No	Don't Know	Number of cases
All adults		38%	56%	6%	1000
Gender	Men	36%	58%	6%	476
	Women	40%	54%	6%	524
Age	18-44	38%	59%	3%	301
	45-64	44%	51%	5%	426
	65 and older	32%	58%	10%	251
Education	High school or less	35%	58%	7%	266
	Some college	39%	57%	4%	297
	College graduate or more	45%	52%	3%	423
Family Income	Under \$35,000	35%	59%	6%	234
	35K to under \$50,000	42%	55%	3%	130
	50K to under \$100,000	43%	54%	3%	298
	\$100,000 or more	39%	59%	2%	199
Scientific and medical discoveries	More informed	46%	50%	4%	630
	Less informed	27%	65%	8%	359