

**TO: Interested Parties**  
**FROM: Hart Research Associates**  
**DATE: May 20, 2015**  
**RE: Public Attitudes Regarding New Technology for Editing DNA**

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*From May 14 to 17, 2015, Hart Research Associates conducted a national survey on the issue of DNA modification for the Synthetic Biology Project at the Woodrow Wilson International Center for Scholars. Interviews were conducted online among a representative national sample of 1,018 adults.*

- (1) The American public has mixed feelings about new technology for making precise changes to DNA that can be passed down from generation to generation. Few see it as a positive or a negative development exclusively, and more than one in four do not know enough to have an opinion either way. When pressed to express an opinion, fully 62% of adults have a mixed opinion of it or lean that way.**

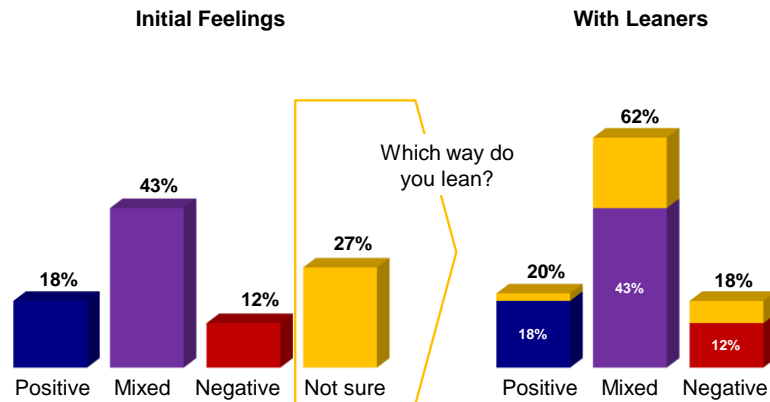
Respondents were presented with the following description of this new technique for genome modification:

*Recently, scientists developed a new set of techniques for altering DNA, which is an organism's genetic code. These techniques can be applied to a range of organisms, including humans. The changes made to the DNA are precise and permanent, and are passed down from a parent organism to its offspring and to future generations.*

Initially, 18% of adults describe this as a positive development, 12% feel it is a negative development, and 43% say it is both a positive and a negative development. Fully 27% of the public say they do not know enough to have an opinion about this new technique for changing an organism's DNA.

## Impressions of a new technology for altering DNA that can be passed down to future generations

Feelings about a new technology for changing an organism's DNA



When those who initially say they do not know enough to have an opinion about this new technology are pressed to say which way they lean, most express ambivalence. When these “leaners” are included, 62% of adults have mixed feelings about the development, 20% think it is a positive development, and 18% feel it is a negative development.

While pluralities of all demographic subgroups have mixed feelings about this development, men (27%) and 18- to 34-year-olds (28%) are more likely than women (14%) and those age 65 and over (15%) to think it is a positive development. (Seniors (42%) are particularly likely to say they do not know enough to have an opinion about it).

### (2) Respondents volunteer a variety of reasons why they think this new technology for editing an organism's DNA is both a positive and a negative development.

When asked in an open-ended question the reasons they think this is a positive development and the reasons they think it is a negative development, 59% mention something positive or beneficial about this new technology and 64% cite something negative or troubling about it.

Respondents volunteer a variety of reasons why they think this is a **positive** advancement, most frequently citing the potential to “cure or prevent diseases” (25%) and to “cure genetic abnormalities or mutations” (15%). Among the other benefits that are mentioned, the ones cited most often are that it will allow scientists to “improve DNA” (4%), that it will help keep people healthier (3%), that moving science forward is a positive thing (3%), and that it will help prevent birth defects (2%).

The most frequently cited reasons why they think this new technology to edit DNA is a **negative** development are that it is “messing around with nature”

and “playing God” (16%), that there is the “potential for harm and dangerous side effects” (15%), that respondents “oppose DNA manipulation and altering humans and human traits” (11%), and that there is “potential for misuse or abuse” (8%). Additionally, smaller numbers of respondents mention concern about “too many unknowns,” concern about “eugenics and creation of a master race,” and concern about the creation of “designer babies.”

**(3) Support for a moratorium on the use of this technology in humans until ethical guidelines or safety controls are in place outstrips opposition by a large margin.**

Respondents were provided with the following statement about a proposed temporary ban on the use of this new technique in humans.

*Thinking just about its use in humans, some have suggested temporarily stopping research using these new techniques until ethical guidelines and safety controls are in place, while others say this new area of research should continue to move forward without a temporary stop or interruption.*

By 45% to 12%, respondents favor a moratorium on the use of this technology in humans. Forty-three percent (43%) of adults are undecided, but when the direction in which they are leaning is considered, support for the temporary ban is 72%, compared with 28% who oppose it. Support for a temporary ban outnumbers opposition across all demographic subgroups.

### **Support for temporarily stopping use of new technology for altering DNA in humans**

