

Should scientists be permitted to edit human germline? Experts weigh in

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The development of technology that allows human genes to be edited has stirred tremendous excitement about the potential for treating debilitating and life-threatening diseases that are currently incurable.

George Church, professor of genetics at Harvard Medical School, favors a careful exploration of the potential of heritable gene editing. Marcy Darnovsky, executive director of the Center for Genetics and Society, says the risks to individuals and to society are too great.

Church: “Editing genetic material in human sperm or egg cells to restore healthy DNA can address significant unmet medical and emotional needs.

“There are many genetic diseases that could be eliminated in families—Tay-Sachs disease, for example, which causes devastating progressive mental and physical deterioration, with death by the age of 4.

“For this and other severe genetic diseases without cures, those who carry the harmful genetic variant currently have few choices when they want a child who won’t be afflicted: adoption, egg or sperm donation or abortion of embryos that are stricken with the disease. For many couples, none of those options work.”

Darnovsky: “A radically different use of gene editing would target human sperm, eggs or early embryos in an effort to alter the DNA and the traits of resulting children. These genetic changes would be irreversibly reflected in every cell of future children’s bodies, and in the bodies of their children and subsequent generations—in ways that we can’t possibly predict because of the complexity of the human genome. The biological risks and ethical implications of reproductive gene editing would be unacceptable.”

Read full, original post: [Should Heritable Gene Editing Be Used on Humans?](#)