

Technology is here: Using gene editing to prevent cancer

If anyone had devised a way to create a genetically engineered baby, I figured George Church would know about it.

At his labyrinthine laboratory on the Harvard Medical School campus, you can find researchers giving *E. Coli* a novel genetic code never seen in nature. Around another bend, others are carrying out a plan to use DNA engineering to resurrect the woolly mammoth. His lab, Church likes to say, is the center of a new technological genesis—one in which man rebuilds creation to suit himself.

Can any of this be done to human beings? Can we improve the human gene pool?

Here is a technical proposal to alter human heredity.

“Germ line” is biologists’ jargon for the egg and sperm, which combine to form an embryo. By editing the DNA of these cells or the embryo itself, it could be possible to correct disease genes and to pass those genetic fixes on to future generations. Such a technology could be used to rid families of scourges like cystic fibrosis. It might also be possible to install genes that offer lifelong protection against infection, Alzheimer’s, and, Yang told me, maybe the effects of aging. These would be history-making medical advances that could be as important to this century as vaccines were to the last.

Read full original article: Engineering the Perfect Baby