How gene editing has evolved into 'worldwide CRISPR frenzy'

CRISPR sounds more like a refrigerator compartment than a gene-editing tool, but it's giving scientists power they could only imagine before – to easily edit DNA – allowing them to reprogram the genetic code of living things. That's opening up the possibility of curing genetic diseases. Some researchers are even using it to try to prevent disease entirely by correcting defective genes in human embryos. We wanted to see for ourselves, so we went to meet a scientist at the center of the CRISPR craze.

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For the last seven years, [Feng] Zhang has been working on CRISPR at the Broad Institute in Cambridge, Massachusetts. It's a research mecca brimming with some of the brightest scientific minds from Harvard and MIT.

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Bill Whitaker: How many diseases are we talking about that this could be used to treat?

Feng Zhang: There are about 6,000 or more diseases that are caused by faulty genes. The hope is that we will be able to address most if not all of them.

Bill Whitaker: Most if not all of them?

Feng Zhang: That's the long-term hope.

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Cue the worldwide CRISPR frenzy. At the University of California, scientists used a form of CRISPR to edit mosquitos so they can't transmit malaria. Their colleagues are modifying rice to better withstand floods and drought. In China, scientists tweaked a gene in beagles to make them more muscular.

Read full, original post: The gene-editing tool revolutionizing biomedical research