Are fears of CRISPR misuse warranted?

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

Hundreds were present at the culmination of the American Association for the Advancement of Science (AAAS) meeting in Washington on February 15 to hear Jennifer Doudna speak about the “CRISPR-Cas9 Genome Editing Revolution.”

Together with Emmanuelle Charpentier of the Max Planck Institute for Infection Biology in Berlin, Doudna, of Berkeley, developed the technology that can edit genes in an easy and highly specific way in many species – including humans.

Many people fear that the technology might be misused to create the much spoken of “designer babies.”

Already, in China in 2015, scientists applied the technology to alter the DNA on very early human embryos; however, these embryos weren’t viable and also weren’t given the opportunity to develop any further. It was simply a lab experiment in a petri dish without clinical applications.

But those possibilities for future clinical applications thrill scientists, including Doudna. Their focus is mainly on what amazing things can be done with the technology.

If scientists can edit the gene that is mutated in people with Huntington’s disease, then they can cure the illness and prevent babies from being born with this kind of disease.

That is, however, only true for diseases that are caused by one single “mistake” in the human genome, like sickle-cell or muscular dystrophy. Diseases like schizophrenia, on the other hand, are much more complicated to cure or even prevent.

The dangers for misuse, though, are less likely than most people might think. “We don’t know how to enhance intelligence,” said Robin Lovell-Badge of the Francis Crick Institute in London.

Like so many other characteristics of a human being, intelligence is not due to one single gene. There are a whole bunch involved – and at the moment, scientists don’t even know which ones.

Read full, original post: Designer babies ‘just not possible,’ say scientists at AAAS