

Should Scientist Toy with the Secret of Life?

by Editorial Board

of The New York Times

Summary and Response

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### Should Scientist Toy with the Secret of Life?

The January 29, 2019, NYT article by the Editorial Board, explains that recent success in making genetically altered human embryos, who are resistant to HIV infection, raises ethical questions about the use and regulation of the genome editing technology, CRISPR. For the first time, scientists in China have made genetically edited babies, causing a wave of attention from the media and global scientific community because there is a "broad consensus against hereditary tinkering" (Editorial Board, 2019). Now scientists and policymakers are rushing against the clock trying to regulate human gene manipulation.

The Editorial Board also explains the importance of diversifying the deciders, engaging the public, and using existing levers of control to broaden the conversation (2019). The proposed solution is to take different voices into consideration and let them take part in the policymaking process. Bioethicists, legal scholars and social scientists, for example, help decide what problems need to be solved, and what questions are more urgent in terms of "societal risks and benefits" (Editorial Board, 2019). The authors suggest the establishment of a global observatory for gene editing in order to make decisions about the future of human genome editing as inclusive and global as possible by promoting a conversation about the limits and directions of research (Editorial Board, 2019). This international organization will provide a safe space for global deliberation on the possible effects of gene editing on humans, will diversify the policymakers by enabling global sharing of information, and will bring people from different disciplines and backgrounds (Jasanoff & Hurlbut, 2018).

Even though this is an effective policy, it is just the first step to catch up with biotechnology. In addition to the international organization, it is imperative to inform citizens about this groundbreaking technology in order to promote the advancement of scientific research because

media and public opinion impact policymaking. There is enough evidence to suggest that involving the public on proposed policies, makes them better and more sustainable. Unfortunately, "the value of most applications of the technology has barely been exposed to public review" (Jasanoff & Hurlbut, 2018).

Another approach to the problem is using the current checks and balances, instead of prohibition, to regulate gene editing outside China will impede scientists like Dr. He. For some desperate families, mitochondrial gene transfer offers the only hope for preventing horrific diseases. But because federal regulators have grouped it with other forms of embryo editing, it's prohibited in the United States (Editorial Board, 2019). The issue with this policy is that it restricts the use of technology even when patients can be cured of genetic diseases. There may be times when editing human embryos would make medical sense. Last year, the National Academy of Sciences and the National Academy of Medicine issued detailed guidelines about what sort of cases might qualify. While they didn't point to any particular disease, they argued that it should be considered only when no other treatment could allow parents to have a healthy child (Zimmer, 2018). Therefore, exploring options to avoid a blanket prohibition would consolidate ethical and policy responses to genome editing and related technologies. If global actors had access to policy making, like in the proposed global observatory, then ethics and science will come together in order to limit what is funded, permitted or published.

Scientific advancement due to technology has occurred many times in the past. There is evidence of humans being able to work together to shape the future. Gene editing is at a defining moment because the decisions made now set precedent for future generations. It is a great power of unimaginable consequences. As stated in this paper, it is imminent to create an international

agency able to self-regulate and disseminate information considering the richness of human diversity.

### References

Editorial Board. (2019, January 29). Toying With the Secret to Life. *New York Times*, p. A22.

Retrieved from <https://nyti.ms/2HAXjZq>

Jasanoff, S., & Hurlbut, J. B. (2018). A global observatory for gene editing. *Nature*.

<https://doi.org/10.1038/d41586-018-03270-w>

Zimmer, C. (2018). Genetically Modified People Are Walking Among Us. *New York Times*.