YUNMUN
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World Health Organization (WHO)
Topic 1: Human Gene Editing
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As revolutionary technologies continue to transform every facet of society, advancements in genetic science have created one of the most interesting, yet morally controversial, innovations. Human gene editing is the process by which scientists can change DNA to treat or potentially prevent certain diseases, ultimately saving the lives of people who otherwise would have been affected by these inherited conditions. However, scientists and governments must consider the risks before allowing these technologies to be widely used. This presents the challenge of balancing medical progress with human safety and ethical responsibility.

Before discussing the problematic aspects of gene editing, it is important to understand the possible benefits it can have on society. Many diseases are caused by genetic mutations, and gene editing can potentially treat these diseases or prevent them from developing. Additionally, many of these diseases have no current treatment options, so gene editing introduces the possibility of correcting disease-causing mutations at the source. Through the use of these novel technologies, patients and their families could experience reduced suffering in addition to improvements in quality of life and long-term care. The takeaway is simple: human gene editing could save lives and improve healthcare significantly if used responsibly. With that said, the potential benefits may not outweigh the potential risks and moral questions.

Although one can focus on the positive attributes of gene editing, the risks and ethical concerns are in greater need of discussion. Gene editing is still a developing technology, and its long-term effects are yet to be fully understood. While altering one's DNA can be beneficial, unintended changes could cause unexpected health problems. If embryos themselves are edited, additional concerns arise regarding the possibility that genetic changes could be passed down to future generations who have not consented to these alterations. Even though these genetic

modifications could prevent inherited diseases before birth, some argue that more research and stronger safety measures are needed before allowing these procedures to be implemented.

In addition to the health concerns, there are also logistical and ethical concerns. Gene editing treatments can be very expensive and difficult to access, which could allow wealthier individuals and countries to benefit more than their poorer counterparts. Ultimately, this concern increases the existing inequalities in healthcare that have continued to plague the healthcare system. Some are also concerned that gene editing could be used to select physical characteristics rather than treat diseases, raising questions about discrimination and fairness. Therefore, governments need to consider where the line should be drawn between medical treatment and genetic enhancement.

So, how should governments and the international community approach this topic? Human gene editing is a global issue, as scientific developments can affect people across national borders. The World Health Organization has highlighted the need for responsible oversight of human genome editing. Some countries support strict restrictions, particularly on changes that can be inherited, while other countries emphasize the potential benefits of further scientific research. Going forward, governments need to find a balance between scientific progress and public safety. International guidelines from the WHO could help prevent unsafe or unethical experiments. The goal should be to ensure that gene editing benefits humanity while minimizing risks.

Here are some questions to get your research started:

- Should human gene editing be limited to treating diseases, or should genetic enhancements also be allowed?
- Should international regulations restrict gene editing that affects future generations?
- Should countries make gene editing treatments affordable and accessible to everyone, and if so, how?
- What role should the WHO play in regulating human gene editing?
- How can governments prevent unethical experiments while allowing scientific research to continue?

- How can the international community balance the medical benefits of gene editing with its ethical risks?

A few important reminders:

1. You are representing your assigned country's perspective, not your personal view.
2. Use reputable, verifiable sources for all research and citations.
3. Papers will be checked for originality; plagiarism and unauthorized use of artificial intelligence beyond what is permitted under the YUNMUN rules will not be tolerated.

If you have any questions at all, please don't hesitate to reach out to me at jmehlma5@mail.yu.edu or yunmunWHO@gmail.com. I would truly be more than happy to offer guidance, support, and advice as you prepare to discuss this topic!

Best,

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Chair, World Health Organization

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