CFMUN

Topic A "Governing the Unborn: The Permissibility of Heritable Human Genome Editing (HHGE)."

Welcoming letter

Dear delegates,

Welcome to the CFMUN XII edition. We are beyond pleased to have you as a part of the World Health Organization (WHO) committee. Throughout these three days, we will be focusing on discussing and finding solutions to the critical issues that affect the health and well-being of people worldwide.

WHO's mission is to promote health, keep the world safe, and serve the vulnerable, and your participation here plays a crucial role in achieving that goal. As delegates, your unique perspectives and ideas will contribute to the success of this committee and ultimately promote positive change on a global scale.

Remember, the goal is not only to represent your assigned country's interests but also to ensure that all people achieve the highest possible level of health.

Together, we can create a conducive atmosphere of meaningful dialogue, innovative thinking, and collaborative action.

We hope that this model serves as a prominent platform for you to share your knowledge, broaden your horizons, and leave with lasting memories.

On behalf of the WHO committee, we wish you a memorable and rewarding experience at the CFMUN. May this be the beginning of partnerships, impactful collaborations, and a pathway to a brighter future.

Warm Regards,
Nuria Gutiérrez and Regina Hernández

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I. Committee Background

The World Health Organization (WHO), founded in 1948, is a United Nations agency dedicated to combating diseases and promote global health.

WHO collaborates with 194 member states worldwide to tackle a wide range of health challenges, including infectious diseases, maternal and child health, and environmental health.

WHO's primary focus is to improve global health outcomes, respond to healthcare crises, and assist countries in achieving the Sustainable Development Goals. Some of the key situations WHO has contributed to include: the response to the COVID-19 pandemic, the Pandemic Treaty aimed at preventing future pandemics, the Hub for Pandemic and Epidemic Intelligence to respond to health emergencies, mental health initiatives, among others.

II. Introduction to the Topic

"Governance" has become a ubiquitous term in efforts to develop oversight for heritable human genome editing (HHGE) research, capturing the many ways, directions, and pace at which this scientific research could be controlled, limited, or standardized (Cadigan et al., 2024).

Heritable human genome editing has garnered significant attention in scholarly and lay media, yet questions remain about whether, when, and how heritable genome editing ought to proceed.

Nonetheless, important data sources have been relatively neglected thus far are the views of two sets of groups who will be integral to the governance process for HHGE research: scientists who employ genome editing in research that might lay the groundwork for HHGE and members of governance groups whose work might be influential in formulating governance frameworks for HHGE.

III. Evolution of the Topic

One central problem in seeking governance frameworks for HHGE is determining the relative ranking of the many possible oversight mechanisms. This task requires determining the extent to which different governance strategies can reflect ethical, social, and scientific concerns about HHGE research and the extent to which governance strategies pursue realistically achievable goals. Different lines of historical and sociological evidence are being marshaled in pursuit of these issues.

The 2018 revelation of He Jiankui's experiments editing and implanting embryos to attempt to confer resistance to HIV in the resulting babies catapulted global attention to the permissibility and governance of HHGE. The fallout included swift condemnation of He from the scientific community and calls for a moratorium on all such clinical research applications until *"an international framework in which nations... voluntarily commit to not approve*

any use of clinical germline editing unless certain conditions are met" (Cadigan et al., 2024).

Summit on Human Genome Editing in 2023 concluded with a statement from the Organising Committee that declared HHGE *"remains unacceptable at this time"* (Cadigan et al., 2024) because safety and efficacy have not been proven, public discussion and policy debates on the permissibility of HHGE are ongoing, and governance frameworks to ensure responsible use of the technology have not been instituted.

IV. Relevant Events

A. Panorama

Approaches to whether and how HHGE should be performed are based primarily on four lines of reasoning. First, there are no circumstances under which HHGE should be performed; it is "prohibited." Second, HHGE remains hypothetical in terms of practical applications, which reduces ethical issues primarily to the philosophical realm, not clinical application. Third, HHGE should be permissible when safety and efficacy are assured, with conditional requirements to avoid ethical violations. And fourth,ethics- or principle-based reasoning has been given for prohibiting HHGE, such as concerns about eugenics; the possible effects on future generations and the larger human gene pool; and the right of the future child not to be genetically modified (Cadigan et al., 2024).

B. Points of view

United States of America: Germline gene editing is banned in the United States by acts of Congress although there is no federal legislation that dictates protocols or restrictions regarding human genetic engineering. Federal controls exist for allocating government funding of research projects, manipulating human embryos and conducting gene therapy clinical trials. There are no germline gene therapy products in the US (Genetic Literacy Project, 2020).

South Africa: South Africa's health authorities have withdrawn the section on heritable human genome editing that was included in version 3 of the National Health Research Ethics Council Guidelines in 2024. The latest version of the ethics guidelines (version 3.1 published in 2025) appears to position the country as the first to explicitly permit the use of genome editing to create genetically modified children (Baylis, 2025).

China: On 8 July 2024, China's Ministry of Science and Technology (MOST) released a comprehensive set of ethical guidelines for human genome editing research, including a ban on clinical research involving germline genome editing. This key regulatory development aims to address ethical concerns and ensure responsible conduct in genetic science (Chu & Meng, 2024).

Nevertheless, in November 2018, the media reported on a Chinese scientist who had created the world's first gene-edited babies using CRISPR technology. He said his goal was to provide children with resistance to HIV, the virus that causes AIDS. When his experiment became public knowledge, twin girls had already been born and a third child was born the following year. The fate of these three children, and whether they have experienced any negative long-term consequences from the embryonic genome editing, remains a closely guarded secret (Baylis, 2025).

V. UN and External Actions

A. UN Actions

The World Health Organization (WHO) released a comprehensive set of recommendations in 2021 for the governance and oversight of human genome editing, emphasizing safety, effectiveness, and ethics. It calls for a "leap forward" in global regulation to ensure benefits are shared equitably and not just within wealthy nations.

The International Bioethics Committee of UNESCO has called for a global moratorium on human germline editing (modifications that can be passed to future generations) until safety and effectiveness are proven and a broad international consensus is reached.

The Universal Declaration on the Human Genome and Human Rights (1997) establishes that research on the human genome must respect human rights and dignity, and prohibits

discrimination based on genetic characteristics. The Council of Europe's Oviedo Convention (1997), a regional treaty, explicitly prohibits the modification of the human genome in germ cells for reproductive purposes.

B. EXTERNAL ACTIONS

There are organizations outside the UN advocating against the Human Heritable Genome Editing and its Governance as The Autistic Self Advocacy Network (ASAN) which sees no disease or condition as an appropriate target for human germline genome editing due to the potential societal and ethical implications of widespread use of the technology. The scientific community's relatively limited understanding of the long-term effects of altering any gene - particularly its effect on multiple generations of individuals - would additionally preclude the use of germline genome editing (ASAN, 2019).

The International Society for Stem Cell Research (ISSCR) revised its guidelines for research on Heritable Human Genome Editing in 2021. These guidelines identify the implantation of gene-edited embryos as belonging to Category 3A because it is “currently unsafe or raise[s] unresolved ethical issues.” The authors note that there may be a potential pathway to allowing such research in the future (John Templeton Foundation, 2023).

VI. Conclusion

Recognizing that hereditary genome editing raises profound ethical questions of international scope. However, society must remain ever aware of the delicate and difficult balance between improvement and destruction. The human species must advance technology so it does not stagnate but must also protect its dignity. Genetic modifications run a slippery slope because there exists a very fine, yet to be defined, line between what can be considered normal and what is considered enhancement.

Before genetic engineering can be put to good use criteria must first be developed and a clear line must essentially be drawn in the sand to ensure humanity's longevity.

VII. Committee Focus

The World Health Organization must look for solutions achievable for every country, both underdeveloped and developed countries, which should be able to reach the solutions debated in the committee. The solutions accorded must help to solve the previously mentioned situation, and the committee should propose short-, medium-, and long-term solutions, each one supported with arguments and reasonable ways to achieve them.

When considering the possible solutions to the committee's topic, the following points must be considered:

- What is your delegation's position regarding heritable human genome editing?
- What could your delegation do to prevent or support heritable human genome editing?
- What could delegations do to address the consequences of cases involving heritable human genome editing?

- Can heritable human genome editing negatively impact society? If so, in what ways?
- How is your delegation addressing economic, social, political, and cultural matters caused by heritable human genome editing?
- How can international regulations ensure consistency and prevent unauthorized applications in jurisdictions with fewer restrictions?

VII. Participation List

- Arab Republic of Egypt
- Canada
- Federative Republic of Brazil
- Federal Republic of Nigeria
- French Republic
- Japan
- New Zealand
- Republic of Ireland
- Republic of Korea
- Republic of South Africa
- Russian Federation
- The Argentine Republic
- The Commonwealth of Australia
- The Federal Republic of Germany
- The Islamic Republic of Iran
- The Italian Republic
- The Kingdom of Denmark
- The Kingdom of Norway
- The Kingdom of Saudi Arabia
- The Kingdom of Spain
- The Kingdom of Sweden

- The Kingdom of the Netherlands
- The People's Republic of China
- The Republic of India
- The Republic of Indonesia
- The Republic of Singapore
- The State of Israel
- United Kingdom of Great Britain and Northern Ireland
- United Mexican States
- United States of America

IX. References

ASAN. (2019). Public Call for Evidence for the International Commission on the Clinical Use of Human Germline Genome Editing. AUTISTIC ADVOCACY. Retrieved from, https://autisticadvocacy.org/wp-content/uploads/2019/10/ASAN-response-to-the-public-call-for-evidence.pdf

Baylis, F. (2025). South Africa amended its research guidelines to allow for heritable human genome editing. The Conversation. Retrieved from, https://theconversation.com/south-africa-amended-its-research-guidelines-to-allow-for-heritable-human-genome-editing-241136#:~:text=In%202020%2C%20we%20published%20alongside,of%20embryos%20—%20promises%20a%20cure.

Cadigan, J., Waltz, M., Conley, J., Major, R., Branch, E., Juengst, E., & Flatt, M. (2024, September 20). Human Heritable Genome Editing and its Governance: Views of Scientists and Governance Professionals. PubMed Central. Retrieved from, https://pmc.ncbi.nlm.nih.gov/articles/PMC11981556/

Chu, J., & Meng, R. (2024). China publishes ethical guidelines and bans human genome editing research. CMS law-Now. Retrieved from, https://cms-lawnow.com/en/ealerts/2024/07/china-publishes-ethical-guidelines-and-bans-human-genome-editing-research#:~:text=On%208%20July%202024%2C%20China's,dilemmas%20associated%20with%20germline%20modifications.

Genetic Literacy Project. (2020). United States: Germline / Embryonic. Global Gene Editing Regulation Tracker. Retrieved from, https://crispr-gene-editing-regstracker.geneticliteracyproject.org/united-states-embryonic-germline-gene-editing/#:~:text=Federal%20law%20prohibits%20the%20use,editing%20conducted%20through%20private%20funding.

John Templeton Foundation. (2023). Joint Statement of Ethics Councils from France, Germany and the United Kingdom on the Ethics of Human Germline Intervention. The Global Observatory. Retrieved from, https://global-observatory.org/database/heritable-genome-editing#:~:text=ISSCR%20Guidelines:%20Heritable%20Genome%20Editing&text=The%20International%20Society%20for%20Stem,such%20research%20in%20the%20future.

OHCHR. (1997). Universal Declaration on the Human Genome and Human Rights. UNITED NATIONS. Retrieved from, https://www.ohchr.org/en/instruments-mechanisms/instruments/universal-declaration-human-genome-and-human-rights