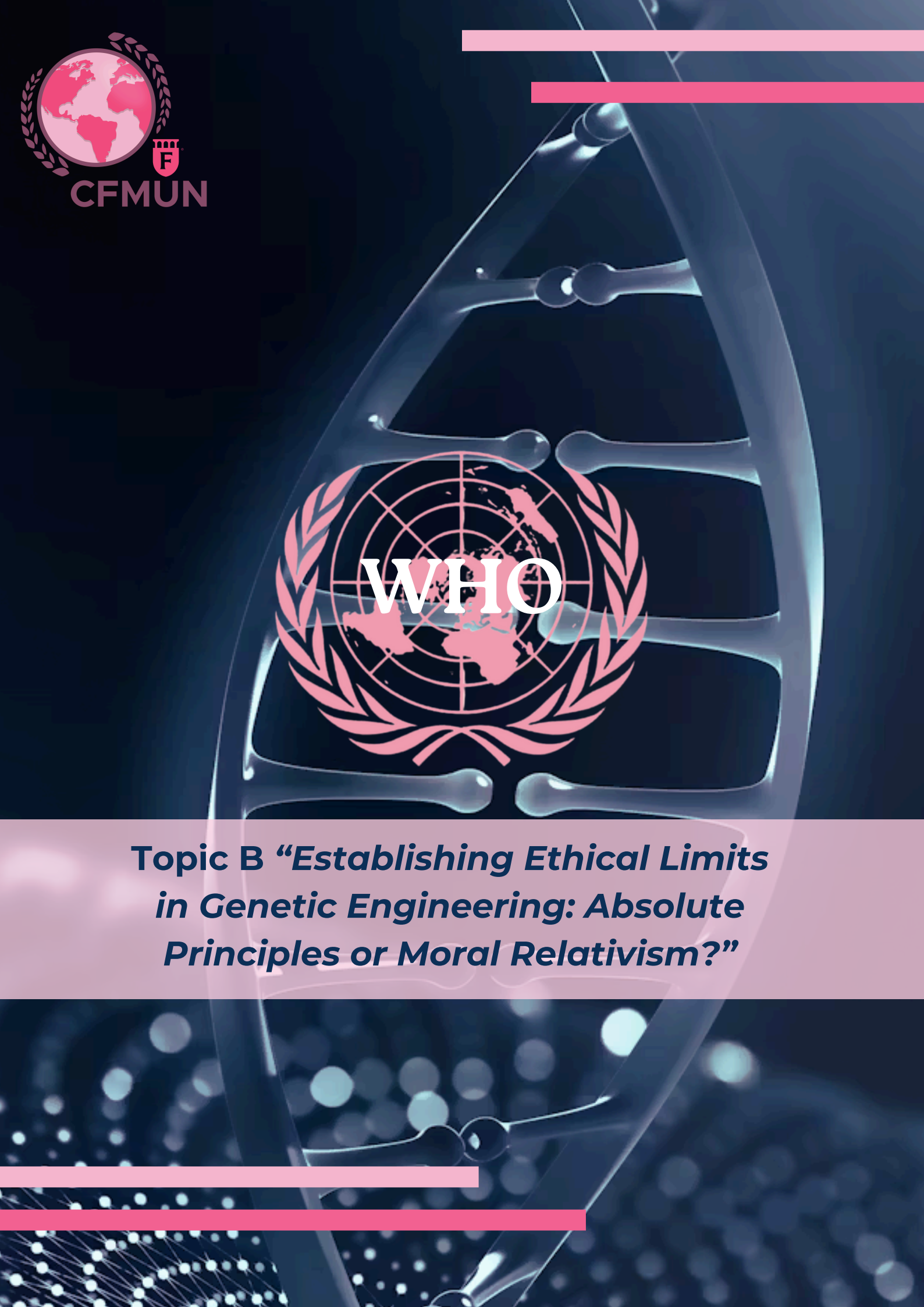
CFMUN



Topic B *"Establishing Ethical Limits in Genetic Engineering: Absolute Principles or Moral Relativism?"*

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 disease 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 responses such as the COVID-19 pandemic, the Pandemic Treaty to prevent future pandemics, the Hub for Pandemic and Epidemic Intelligence for health emergencies, and mental health initiatives, among others.

II. Introduction to the Topic

Genetic engineering (also called genetic modification) is a process that uses laboratory-based technologies to alter the DNA makeup of an organism. This may involve changing a single base pair (A-T or C-G), deleting a region of DNA or adding a new DNA segment (Smith, 2025).

Different methods have been used to treat genetic diseases, develop vaccines and medicines, and create diagnostic tools. Although this has helped society in many ways, genetic engineering has also caused a lot of controversy.

Genetic engineering raises core bioethical duties by defining how interventions promote welfare, avoid harm and respect individual rights. Nevertheless, these interventions have profound consequences for future generations and trigger debates about irreversible alterations to the human gene pool.

III. Evolution of the Topic

It began in the 1950s with discoveries about DNA, and in the 1970s, scientists uncovered essential tools for gene manipulation. New techniques were developed and applied to real-life through the years.

In the early stages of genetic engineering, the primary technology used was transgenesis, literally meaning the transfer of genetic material from one organism to another. However, with advances in the field, new technologies emerged that did not necessarily require transgenesis: recent applications allow for the creation of genetically engineered beings via the deletion of genes, or the manipulation of genes already present.

Two decades ago, the practices of human enhancement were described as *'biomedical interventions that are used to improve human form or functioning beyond what is necessary to restore or sustain health'* (Doctify, 2025).

The range of these practices has now increased with technological development, and they are *'any kind of genetic, biomedical, or pharmaceutical intervention aimed at improving human dispositions, capacities, or well-being, even if there is no pathology to be treated' (Almeida & Diogo, 2019).*

Nonetheless, since the concept of genetic engineering emerged, there is an ongoing debate between transhumanists and bioconservatives on the ethical issues regarding the use of technologies in humans.

The rapid advances in technology seen in the last decades, have raised the possibility of *'radical enhancement'*, the main problem of which is that the full extent of the effects that the artificial mutation may have, both at the genetic and phenotypic levels, is not known with certainty.

IV. Relevant Events

A. Panorama

The use of genetic engineering and the production of artificial or modified life forms bring serious ethical considerations that must be carefully considered. While these practices have the potential to advance science in fields such as medicine, agriculture, and environmental conservation, they also raise ethical concerns about interfering with natural processes, moral responsibility towards created life forms, and the risks and consequences of changing the essence of life (Goyal, 2023).

B. Points of view

United States of America: While many Americans say they would want to use such a technology for their own children, there is also considerable wariness when it comes to gene editing, especially among parents of minor children. Highly religious Americans are much more likely than those who are less religious to say they would not want to use gene-editing technology in their families. And, when asked about the possibility of using human embryos in the development of gene-editing techniques, a majority of adults – and two-thirds of those with high religious commitment– say this would make gene editing less acceptable to them (Ormandy et al., 2011).

Brazil: Germline gene editing is banned by a resolution and a law. The CNS Resolution #340, finalized in 2004, allows human genetic research on somatic (adult) cells only. In 2005, Law No. 11.105 was passed, which bans genetic engineering in “human germinal cells, human

zygotes and human embryos". However, the law primarily focuses on regulating genetically modified crops and does not specify enforcement or punishment for germline gene editing.

United Kingdom: A world-leader in genetics and genomics and hosts leading agricultural research founded on scientific excellence. Their farmers are increasingly embracing new technologies, such as precision agriculture, to drive efficiency, maximize yields and protect the environment. Their government wants to foster an environment that incentivises innovation and captures the benefits of genetic technologies for all, while managing any risks in a way that is supported by sound science. Their desire is to progress towards building an approach in which people can be confident about the governance, regulation and use of genetic technologies.

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 prohibit

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

B. EXTERNAL ACTIONS

There are organizations as The International Centre for Genetic Engineering and Biotechnology (ICGEB) which is dedicated advanced research and training in molecular biology and biotechnology, to advancing knowledge, applying the latest techniques in the fields of biomedicine, crop improvement, environmental protection/remediation, biopharmaceuticals, biopesticide and biofuel production.

GeneWatch UK is a nonprofit advocacy group, founded in 1998, that opposes the use of GMOs in agriculture. The group also opposes gene patents as well as the genetic modification and cloning of animals. GeneWatch supports genetic modification only when there is no alternative to alleviate human (or animal) suffering. The organization also warns that genetic engineering will lead to biological weapons. The group also has also raised concerns about the storing of genetic information in databases and has pushed for regulations prohibiting discrimination by employers, insurers, police or other in official positions.

VI. Conclusion

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 essentially draw a clear line 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 should be able to reach the solutions debated in the committee. The solutions proposed must help to solve the previously mentioned situation, and the committee should propose short, middle and long term solutions, each one supported with arguments and reasonable ways to achieve them.

- How can the delegations clearly define the boundary between therapeutic interventions and genetic enhancements?
- Can genetic engineering negatively impact society? If so, in what ways?
- What moral or ethical principles should guide the use of advanced genetic engineering?

- Is there an absolute distinction between somatic editing (affecting only the individual) and germline editing (heritable changes affecting future generations)? Should the latter be universally banned due to the impossibility of obtaining consent from future individuals?
- How can international regulations ensure consistency and prevent "rogue" applications in jurisdictions with fewer restrictions?
- Should the long-term, potentially irreversible effects on ecosystems and human evolution be a universal, absolute ethical constraint?
- Do other life forms (plants, animals, ecosystems) have a right to their own genetics? Are there absolute principles regarding non-interference with nature, or are modifications acceptable if they serve human or ecological ends (e.g., conservation efforts)?

VII. Participation List

- Arab Republic of Egypt
- Canada
- Commonwealth of Australia
- Federative Republic of Brazil
- Federal Republic of Nigeria
- French Republic
- Japan
- New Zealand
- Republic of Korea
- Republic of Ireland
- Republic of South Africa
- Russian Federation
- The Argentine Republic
- 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

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