

Question of: CRISPR technology

Co-Submitted by: Belgium, China, Croatia, Dominican Republic, Russian Federation, Georgia, Germany, Israel, Pakistan

Co-Sponsored by: Estonia, Norway, Nigeria, Qatar, South Africa, United Kingdom, Uzbekistan,

The General Assembly,

*Defining* CRISPR technology as a gene editing technique in molecular biology by which genomes of living organisms may be modified,

*Acknowledging* the importance of CRISPR technology as a method for advancing scientific research, medical applications, and agricultural innovations,

*Affirming* the utilization of CRISPR technology in laboratories worldwide has transformed the field of gene editing, facilitating its widespread application in both medical and cosmetic settings by bringing about notable changes,

*Recognizing* the ethical implications surrounding CRISPR technology, such as but not limited to its potential to exacerbate social inequality,

*Aware* that different cultures and beliefs result in diverging opinions on CRISPR technology,

*Cognizant* of the unforeseen consequences of both actual and potential repercussions in CRISPR technology,

*Aware* that CRISPR technology in its current form has edited off-target genes,

*Emphasizing* the necessity for continuous refinement of the precision and safety of CRISPR technology,

*Deeply concerned* about the potential for harm due to the lack of CRISPR regulation and laws,

*Highlighting* the necessity for the community of nations to have a common understanding of what constitutes proper and improper use of CRISPR technology,

*Emphasizing* the importance of transparency and sharing of scientific data when working with developing technologies such as CRISPR technology,

1. Requests all nations to reach a consensus on criteria for ethical gene editing to ensure that all countries adhere to one understanding. This criteria would include but not be limited to:
  - a. The definition of gene-editing and CRISPR
  - b. A list of legal and illegal possible effects of a gene editing procedure
    - i. Short-term,
    - ii. Long term,
    - iii. Risk of failure/unintended consequences,
  - c. Whether research illegally obtained can be used by distributed to other scientists
  - d. How CRISPR should and should not be used
    - i. Should be used for saving lives from life-threatening diseases,
    - ii. Should not be used for aesthetic purposes such as “designer babies”,
    - iii. Should not be used without consent except for embryos with congenital diseases,
    - iv. Should not be used for unnecessary or personally beneficial modifications,
2. Encouraging further research and development to enhance the accuracy and safety of the CRISPR technology by:
  - a. Improving the specificity to enhance accuracy to ensure CRISPR edits target only,
  - b. Participate in germline research that does not breach the aforementioned laws and regulations to further expand the horizon of gene editing and increase the possibility of safe and ethical practices,
3. Acknowledging that there are diseases that can only be cared using CRISPR technology that are life-threatening such as Sickle Cell Disease,
4. Encourages the education of gene-editing among minors in an educational setting through ways such as but not limited to:
  - a. Adding gene-editing informative sessions into public school curriculums to teach students about vaccines in subjects such as but not limited to:
    - i. The history of gene editing,
    - ii. Explaining the process of gene editing,
    - iii. Basic biological explanations of how vaccines work;
5. Requests research institutions and governments to focus their attention on the side effects of gene editing to ensure that both the benefits and detriments of each possible gene editing procedure are fully understood,

6. Recognizing the possibility that if gene editing becomes accessible to the public there is a high likelihood that it could increase the inequality in nations and therefore needs to be regulated to avoid higher income inequality,
7. Expresses its full support in making improvements to develop advancements in agriculture for a better living environment,
8. Recommends therapeutic method of CRISPR technology which successfully controls almost  $\frac{3}{4}$  of genetic disorder treatments,
9. Supports performing thorough scientific actions, in order to avoid off-target gene editing, to allow CRISPR to become as accurate as possible;
  - a. Performing trials on animals
  - b. Gathering information for years,
10. Supports the use of CRISPR technology in a medical setting, such as but not limited to:
  - a. Genetic disorders,
  - b. Diseases/illness,
11. Encourages further exploration/research on the unforeseen consequences caused by off-targeted gene editing to:
  - a. Invite other nations to be more open to the use of CRISPR Technology,
  - b. Avoid said consequences,
12. Requests the WHO to play the center role in monitoring the use of CRISPR by:
  - a. Collecting and correlating information gathered from “National Regulatory Agencies” and monitoring any research occurring within their borders or in cooperation with agencies in other member states,
  - b. Having “The Research Ethics Review Committee” regularly performs ethical review processes on CRISPR based on the latest data available,
  - c. Establishing preliminary international guidelines for the use of CRISPR,
13. Emphasizes the necessity for developing a framework for CRISPR technology that does not exacerbate social inequality by:
  - a. Involving Diverse Groups when creating policies for CRISPR,
  - b. Factoring cultural and ethical values of different societies,
14. Recommends the provisions of government and private funding to leading research institutions for the further research and development of CRISPR technology,

15. *Urges* member states to form a supportive network on the advancement of CRISPR/Cas9 by fostering international cooperation and communication, through means such as but not limited to:
  - a. Promoting collaborative research programs among developed nations through the disclosure of obtained data and the sharing of human resources across laboratory or hospital institutions,
  - b. Organizing annual conferences hosted by the WHO aimed for participating nations to report current status, present future prospects, and discuss rising challenges observed in the representative results of the year's research,
  
16. *Strongly advises* respective nations and the UN body to accommodate and promote the progression of research on CRISPR technology through means such as but not limited to:
  - a. Facilitating a UN fund that allocates financial aid to certified laboratory or hospital institutions that are underfunded,
    - i. Conduct a thorough inspection by specialists sourced from the WHO to investigate the institute's credibility and skill set prior to certifying the organization,
  - b. Implementing a governmental campaign that incentivizes laboratory or hospital institutions to establish a division focused on CRISPR/Cas9 development through the use of subsidies,
  
17. *Recommends* the outcome of gene-altering clinical trials utilizing CRISPR/Cas9 to be monitored over an extended period of 5 to 15 years before the treatment could be made accessible to the public,
  
18. *Recognizes* that CRISPR is an underdeveloped technology, and nations should implement laws that ban CRISPR experiments on people while it is an underdeveloped technology,
  - a. Experiments should begin with cells in Petri dishes,
  
19. *Recommends* that any and all research done on CRISPR technology be put in a global database where the information is accessible by any nation and anyone,
  
20. *Encourages* CRISPR technology to be used only for medical and agricultural purposes,
  
21. *Instruct* scientists to gain approval from the WHO before working on CRISPR technology,