RED CEDAR MODEL UNITED NATIONS SESSION IX

United Nations Educational, Scientific and Cultural Organization

Chair: Anthony Nguyen
Assistant Chairs: Ali Cramer, Josh Cole, Rohan Shah

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Delegates,

Welcome to UNESCO! The 2020 dais is especially excited to have you here for MSUMUN's biggest anniversary so far, and we hope that you've got the same level of excitement. This year, we're tackling the problems opposing women, opposing youth, and the far-reaching consequences of gene editing on the horizon. We've got education, we've got science, we've got culture, and now, all we need is your fantastic ability to persevere and find resolution. Once again, the UNESCO dais is happy to have you with us, and we're ecstatic to see what you're bringing to the table!

Anthony Nguyen - Chair

Hey guys! My name's Anthony Nguyen, and I have the honor of being your Chair for MSUMUN! I'm a senior, majoring in Genomics and Molecular Genetics and Microbiology, with a minor in Computer Science. This is my fourth year of MSUMUN, having been assistant chair for WHO and head chair for SOCHUM and UNEP, and my sixth year of MUN experience overall. My favorite part about MUN is its ability to pull the real world into perspective. For me, as a science and math focused person, global politics and events can seem like a world away; MUN helps bridge that gap. In terms of extracurriculars, I'm involved in several Honors College-related ones, in addition to undergraduate research in two veterinary lab. Next year, I'm hoping to go to grad school, so please pray for me. Between classes, clubs, and work, I spend my free time cooking, gaming, eating at all the restaurants, online shopping, and showing my friends that indeed I am the best at Smash. I'm excited to meet each and every one of you, and am expecting great things from all of you!

Ali Cramer - Assistant Chair

Hello! My name is Ali Cramer and I am delighted to be one of your assistant chairs for UNESCO 2020! I am a freshman majoring in neuroscience with minors in computational, math, science, and engineering and pharmacology and toxicology. Although this is my first MSUMUN, I competed in MUN all four years of high school and have continued competing on the collegiate circuit as a member of IRO, MSU's competitive MUN team. Outside of school and MUN, I work in a pharmacology and toxicology lab, and am a member of Honors Students Actively Recruiting, but you can also find me watching Downton Abbey, Victoria, making homemade Italian food, and sipping on some Earl Grey tea.

Josh Cole - Assistant Chair

Hi everyone! My name is Josh Cole and I am so proud to be an assistant chair for you guys this year! I'm a freshman with an exploratory major, which means I have no idea what I want to do, but I'm trying to figure it out! This is my first time at a MSUMUN conference, but I have four years of MUN experience under my belt from attending the Mid-American MUN conference in Kalamazoo and participating in my school-wide MUN conference all throughout high school. I also act and have been involved in theatre for a very long time. Outside of my full class schedule and work in MSUMUN, you'd probably find me playing Animal Crossing, desperately attempting to master the ukulele, or religiously watching Bon Appétit videos on YouTube. I will eat pretty much any pasta you put in front of me, and if I haven't started my day

with an iced tea, be sure to ask me if I'm doing okay, because something is clearly off. I look forward to hearing a lot of awesome debate from you guys!

Rohan Shah - Assistant Chair

Hey guys! My name is Rohan Shah and I'm excited to be your assistant chair for UNESCO this year. I'm a freshman majoring in economics. This is my first MSUMUN but I did Model UN in highschool and have been to many conferences around the world. Aside from studying and school, I enjoy hanging with friends on the weekend, football, and my Xbox. Looking forward to meeting you all.

If you have any questions concerning research, the topics, clarification of any rules of MSUMUN, or really anything concerning the conferences, feel free to shoot us an email at GA2@msumun.org. Once more, it will be exhilarating to meet every one of you and to watch what solutions you have to offer, so come ready and come excited!

All the best,
Anthony Nguyen
Chair
UNESCO
GA2@msumun.org

Topic A: Empowering Conflict-Affected Children and Youth

Introduction:

       In 1989, the United Nations General Assembly adopted the Convention on the Rights of the Child, outlining the world's commitment to ensuring every child has their basic needs provided for---including protection from violence, an education, and the ability to express their opinions. Yet in many places, these basic needs are not being provided. In states such as Syria, Burundi, Tanzania, Egypt, Ethiopia, Lebanon, South Sudan, Uganda, and Myanmar, children are being deprived of the right to an education as a direct result of ongoing conflict. In many aforementioned countries, children and youth are also at risk of conscription into the military, placing them at the forefront of conflict. Without the education and lack of political barriers their adult counterparts have, children and youth in conflict-affected areas often find themselves without a voice to express themselves, highlighting the need to empower conflict-affected children and youth. The United Nations Security Council has previously identified five main pillars of action for this topic: participation, protection, prevention, partnerships, disengagement and reintegration. Working through these pillars, this committee should then seek to ensure every child is protected from violence and given ample opportunity to reach their full potential, while encouraging affected and non-affected youth to participate in programs and initiatives, bringing with them unique viewpoints and experiences.

Historical Background:

       The close of World War II brought forth the creation of the UN. It also saw the end of the suffering of more than two million children who had been relocated, orphaned, or killed during the course of the war. The newly founded United Nations made one of their first priorities to provide these children with adequate food, clothing and shelter, as well as health care. However, the Second World War was not the only conflict that had affected or was currently affecting children and the United Nations soon responded by creating several committees designed to work in conjunction in order to address the pressing issues regarding children and their treatment internationally.

       In 1949, the United Nations General Assembly mandated the creation of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), an agency committed to serving the needs of the 750,000 Palestinian refugees that needed assistance at the time. UNRWA provided and continues to provide education, health care, social services, infrastructure and improvement for camps, microfinance, and emergency aid, allowing individuals---especially children---the opportunity to grow and learn within refugee camps and communities in the Palestinian region.

       Recognizing that these circumstances were not unique to the Middle East, the UNGA established the United Nations High Commissioner for Refugees (UNHCR) in 1950, establishing a UN body dedicated to the plight and eventual resettlement of refugees. This body published and adopted the Refugee Convention in 1951, outlining the basic definition of a refugee as well

as what they should receive, however in terms of European refugees. This document was expanded in 1967 to include individuals from all over the world through the 1967 Protocol. Together, these two documents are frequently referred to as the 1951 Convention and 1967 Protocol and form the basis of refugee law and rights, as currently recognized at the international level.

As children could now be legally treated as refugees and stateless people, empowering those classified as such became much easier, however, the problem of how to alleviate conflict and empower children *within* conflict zones remained. In 1953, the United Nations International Children's Emergency Fund (UNICEF) was founded in an attempt to directly address the needs of the children affected by WWII, and later extended to the world. With the creation of this new body came the creation of the Declaration of the Rights of the Child, adopted by the UN General Assembly in 1959. UNICEF has since been tasked with upholding these rights, including, but not limited to: protection, education, health care, shelter, and good nutrition. Many of these rights are far from being afforded to children in developing countries and therefore even further from being provided to children in conflict-affected areas.

However, one body was formed to focus on education and children almost exclusively. Working in conjunction with UNICEF and the UNHCR, the United Nations Educational, Scientific, and Cultural Organization (UNESCO), was founded to combat the spread of radical misinformation and protect cultural heritage that had been taken away as a result of the Second World War. This organization's mandate is to promote scientific achievement, discovery, education, literacy, and cultural heritage. In essence, it was founded to empower individuals and nations around the world to work towards the betterment as advancement of society and to ensure every individual has access to what they need in life to succeed.

However, conflict affects each of UNESCO's mandates. UNESCO has stated that, through youth empowerment, violent extremism can be curbed, education can be spread, and ignored international issues can be brought to the foreground of international politics. UNESCO forged forward in the creation of international youth-volunteer work camps after WWII to aid in the reconstruction of Europe to social media campaigns aimed at showing youth the power of--- and how to use---their voices. To this day, UNESCO continues to lead the international community to create more innovative solutions when attempting to empower the next generation of youth, especially those in conflict-affected areas.

Current Issues:

Major International Conflicts
Currently, the majority of UNESCO's work in regards to conflict-affected youth is centered around providing resources to those who have been affected by conflicts in the Middle East and Sub-Saharan Africa. The Syrian crisis is perhaps the most notable of these conflicts, having affected over 13.1 million people, 5.6 million of whom are children. In South Sudan, over 4 million people have been displaced as a result of ongoing political disputes and over two million refugees now reside in the surrounding nations.

Refugee Education
And while, for many affected children and their families, the opportunity exists to leave and seek asylum in a new country, states such as Turkey and Germany find their resources stretched thin due to the large influx of refugees from these nations. While the refugees await transfer to a new nation, their opportunities are significantly hindered. Although nations such as Kenya operate refugee camps that comply with national educational standards, a lack of resources, both physical and labor, restrict their reach and hinder their ability to create an intermediate educational system that can help children bridge the gap between the education they have already received and the knowledge needed to enter into local schools at the same level of their peers.
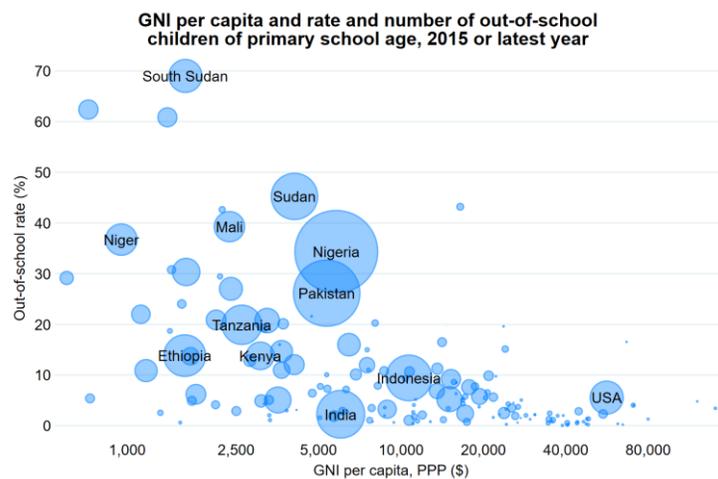
Bridging Competencies
The main challenge which UNESCO is seeking to solve today is how to effectively bridge the competency gap between children who have been out of school as a result of conflict and/ or resettlement, and their peers, who have lived life without the effects of conflict. While the former has just as much academic potential as the latter, only one percent of refugee youth will pursue a college degree, according to the UNHCR. In order to address this disparity, UNESCO has

adopted the 2019 Global Convention on the Recognition of Higher Education Qualification, seeking to increase its efforts to improve access to collegiate education through the establishment of global qualifications for entrance into institutions of higher education. This means nothing, however, if UNESCO and the global community cannot do more to empower these young people to attend university and ensure they have the resources and guidance to make their dreams a reality. One potential solution involves increased accountability and domestic legislation, as the international community has already passed legislation on its own. On its seventieth anniversary, UNESCO has begun launching a digital campaign meant to bring awareness to the right to education for all: a right specifically stated in the Universal Declaration of Human Rights and one that is often forgotten.

Empowerment through Education

History has proven education to be a method in which individuals not only gain knowledge for themselves, but take their new knowledge to better themselves, their community, and their world. With only one of every one hundred refugee youth pursuing higher education, the waste of potential is astounding. However, it should come as no surprise that in nations such as Kenya, up to six students are forced to share a desk; four share a textbook; and the teacher to student ratio reaches upwards of 1:56. And while a shortage of teachers exist, some nations such as Chad offer refugee training to become teachers, while other nations in the region, such as Uganda, refuse to acknowledge teaching certificates from their neighboring countries. Yet, studies have shown that a single year of additional schooling can increase lifetime earnings by up to ten percent, eliminate child marriage, increase a nation's GDP by up to three percent, and most importantly, create a culture of activism, and therefore empowerment of any individual who was given access to education. Knowing this, it is the prerogative of the international community to ensure that more resources are made available when needed as the benefits of education greatly outweigh the benefits of beginning to work from an early age.

GNI per capita and rate and number of out-of-school children of primary school age, 2015 or latest year

Notes: The size of markers reflects the number of out-of-school children. Named countries have more than 1 million out-of-school children.

Friedrich Huebler, huebler.blogspot.com, July 2017

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Current Positions:

        Most European and Western states have well-established educational programs of their own and are largely responsible for the funding of UNESCO programs worldwide. As the most technologically-advanced nations in the world, they are most well-equipped to implement social media campaigns and offer solutions based on current educational programs. However, many European nations such as Turkey, Greece, Italy, and Germany, have taken in many refugees from Northern Africa and the Middle East, giving them a unique perspective on the issue as they both house and provide resources to many conflict-affected children.

        Many African nations face the same issues. With ongoing conflicts in South Sudan as well as the Central African Republic, many African nations have taken in conflict-affected children and face a serious lack of resources in the educational sector. Africa as a whole is still facing general educational problems of its own with twenty to sixty percent of school-aged children in sub-Saharan Africa not attending school. With the lack of educational equality for many school-aged children in developing African nations already a prevalent issue, the educational opportunity of conflict-affected children and youth presents an even larger issue for the continent.

        The Middle East has the largest population of conflict-affected children and youth in the world. Due in large part to the conflicts in Afghanistan and Syria, many children find themselves relocated to refugee camps or internally displaced. Many nations are open to new educational initiatives, however, the most successful have proven to be culturally sensitive and community-partnered.

        Home to some of the world's best and most competitive educational systems, Asia leads the way in terms of educational standards and new educational systems. Having suffered much conflict in the past fifty years, many Asian countries have faced the topic firsthand. Therefore, they have the ability to offer tailored solutions that have been proven to work in the past and could hopefully be implemented and provide relief to millions of children currently lacking empowerment from their conflict-affected backgrounds. Of course, some nations such as China and North Korea provide opposition in practice to this empowerment through free speech restrictions, which could become a point of contention in committee.

What to Include in a Resolution:
- Bridging the knowledge gap between children and youth in conflict-affected areas and their peers in non-conflict-affected areas
- Educational reintegration of refugees
- Specific funding of new programs
- How to utilize and/or expand existing programs, initiatives, and committees

Questions to Consider:

- When creating educational programs, how will you ensure international cooperation without infringing on national sovereignty?
- What should be the role of UNESCO in establishing an overarching international educational framework?
- How should UNESCO address the lack of education in children displaced within conflict affected areas who are unable or unwilling to leave or relocate?
- What NGOs currently partner with UNESCO and what is their role in implementing effective international solutions?
- How can UNESCO implement programs internationally while respecting the culture and beliefs of respective peoples and nations?

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Topic B: The Bioethical Implications of Gene Editing

<u>Introduction</u>

       The human genome is a massively detailed code which determines every trait we possess, from eye color to predisposition to disease. Scientists have been fascinated with the human genome for decades, but only in recent years has a new technology arisen that has completely changed the way in which scientists interact with the human genome. This technology is called gene editing. Gene editing is the manual alteration of DNA sequences for the purpose of changing the function of certain genes. There are multiple tools which have assisted scientists in modifying DNA sequences, the most prominent of which include Zinc Finger Nucleases (ZFNs), Transcription Activator Like Effector Nucleases (TALENs), and Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR). CRISPR, short for its full title, CRISPR-Cas9 (pronounced "crisper cass nine"), is the most effective tool used by scientists today to alter the human genome. It has many capabilities and can be used for a variety of useful applications, but there is a strong debate over whether or not the human genome should ever be modified at all.

<u>History</u>

       The search for a method to alter genetic code has been one of the most widely pursued research topics since the discovery of DNA in the 1950s. The first method used was homologous recombination, in which genetic information was transferred into the target DNA strand from an introduced strand that was complementary to it. However, it was immensely unreliable, causing a high number of off-target edits and incorrect mutations. It wasn't until the rise of ZFNs in the 1990s that a reliable, tangible method arose. ZFNs allowed scientists to design zinc-protein compounds in cells that were capable of changing structure by cutting DNA strands or binding new genetic sequences to the DNA. However, the ZFNs had only a 10% success rate and were very time-consuming to construct. The next breakthrough occurred with the discovery of TALENs in 2009. These were much easier to develop than ZFNs, but still proved inaccurate and time-consuming. Clearly, a far more advanced method was necessary.

       This method was found in CRISPR-Cas9, which offers a much shorter, far less expensive developmental period and greater effectiveness than its predecessors. CRISPR-Cas9 had been the topic of extensive research for twenty years by the time it was first utilized for genome editing in 2013. It was created from the natural immune response systems of single-celled bacteria and archaea, which counter foreign viruses with the use of specialized RNA and a variety of Cas proteins, one of which includes Cas9.

       CRISPR is a specialized segment of DNA that is made up of repetitive sequences of nucleotides and spacers. Nucleotides are the "building blocks" of DNA. Spacers are small segments of DNA that appear between the nucleotide sequences. In bacteria, spacers are extracted from an invading virus and added to the bacterial DNA sequence to act as a "catalog" of which viruses have infected the bacteria in the past. This "learning" process allows for a more efficient immune response in the case of a repeat infection. When the virus returns, a portion of the CRISPR is copied into a new CRISPR RNA (crRNA) strand, which contains a spacer and

nucleotide sequence. This strand determines which portion of DNA will be cut— the target is the portion of DNA that has a nucleotide sequence complementary to that of the crRNA.

The Cas9 protein is an enzyme that can cut through a foreign DNA strand, but this does not occur uncontrollably. In bacteria, Cas9 will bind to a crRNA and another strand of RNA (called tracrRNA), both of which guide the Cas9 to the cutting site. The site is marked by short DNA sequences called protopacer adjacent motifs (PAMs), which act as tags that help signal the location of where the DNA is to be cut. Without a PAM present, Cas9 will not cut. In laboratory genome editing contexts, the crRNA and tracrRNA have been fused to create a single, more efficient guide RNA.

The use of CRISPR-Cas9 in a laboratory setting runs very similarly to how the method is used naturally in bacteria. To determine where Cas9 will be guided, scientists design their own crRNA with a nucleotide sequence complementary to the target. This guide RNA directs Cas9 to the cutting site, and the protein cuts. When the DNA has been cut, a natural reparation process that it can undergo is one in which the cell transcribes information from a short DNA template into the gap to fill it. At this point, the scientists can supply any template for the DNA strand to add into the genome, thus importing the gene of their choice and correcting the genome.
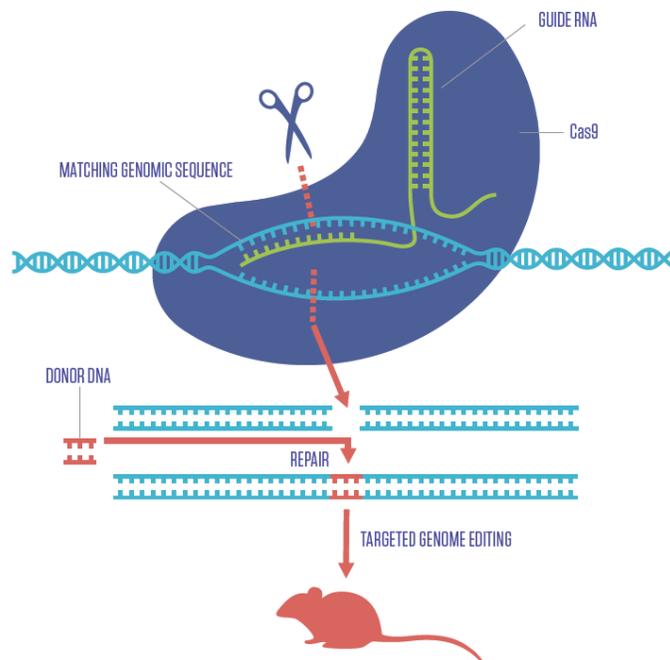

Figure 1. A rough diagram of how CRISPR-Cas9 edits a new DNA sequence into a targeted gene.

There are two different types of gene therapies: somatic therapy and germline therapy. Somatic therapy affects somatic (non-reproductive) cells, so any alterations made to the genetic code impact only the individual. It can be used to combat diseases and terminal illnesses in a patient. Germline therapy affects reproductive cells (sperm and eggs) in addition to somatic cells,

resulting in the passing down of the introduced trait to subsequent generations. It has the potential to prevent the passage of inherited illnesses during reproduction.
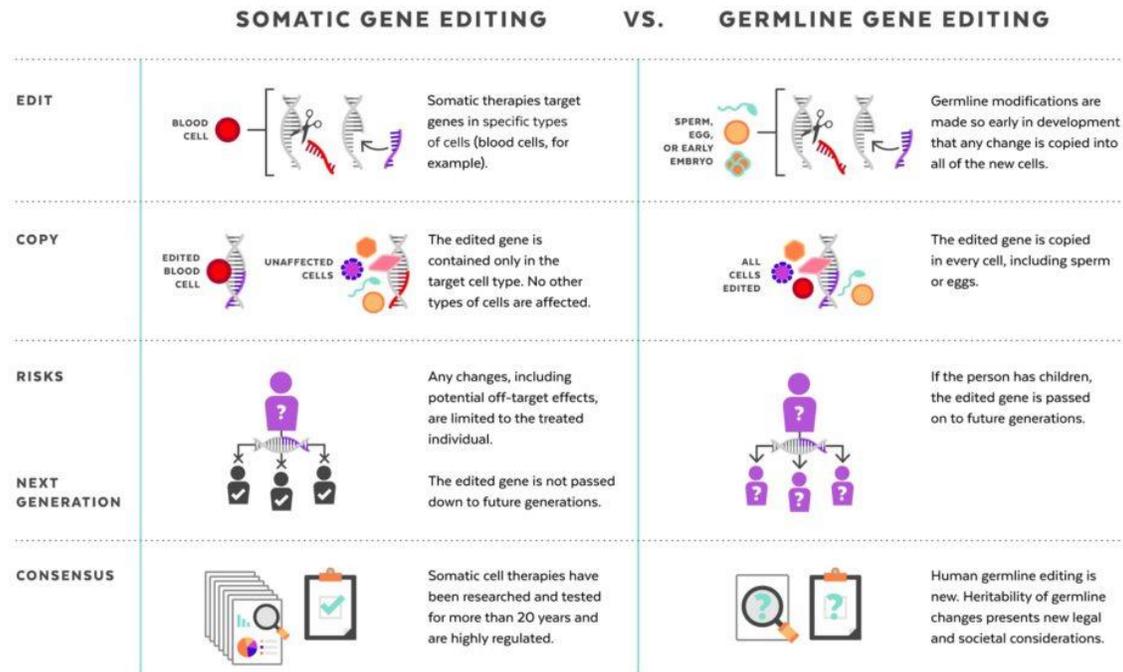

Figure 2. The differences between somatic therapy and germline therapy.

The first publication of CRISPR-Cas9 being used to experimentally edit human cells came in 2013 from researchers led by Feng Zhang of the Broad Institute of the Massachusetts Institute of Technology and Harvard. They successfully showed that the technology could be used to effectively correct genetic defects. The first official test on a human adult was performed in October 2016 by a team of researchers led by Lu You, an oncologist at Sichuan University in Chengdu, China. The patient, who had an aggressive form of lung cancer, was injected with CRISPR-modified cells for a clinical trial that was approved in July of the same year. The team removed immune cells from the patient's blood and used CRISPR-Cas9 to block the genetic code for a certain protein that stops a cell's immune response; this protein is what cancerous cells use to rapidly multiply in the body.

Most of the focus for CRISPR-Cas9 is on its use for genome editing in humans, but it has many other applications as well. It has first been successfully implemented in the food industry, used to create probiotic cultures (e.g. dairy) and protect cultures from viruses. It has also been utilized in the agricultural industry to create a breed of crop that is more nutritious, gives higher yield, and can withstand harsh environments, such as drought. Another application is the creation of gene drives. Gene drives simply increase the possibility of one trait passing from a parent to

the next generation, which can be used to spread resistance to viral diseases throughout a population. They "could also be used to eradicate invasive species and reverse pesticide and herbicide resistance".

Current Issues:

The benefits of genome editing and the use of CRISPR-Cas9 are clear. CRISPR is far more efficient and accurate than previous technologies, and is much easier to develop. Successful introduction of selective genes into an individual's somatic DNA can help combat terminal illnesses, kill cancer cells, and genetic defects. Germline application of CRISPR into an embryo can work to prevent the inheritance of genetic predispositions to diseases such as Alzheimer's and spread immunity to dangerous viral diseases like malaria. The use of CRISPR extends beyond human genome editing, too, as it has also greatly benefitted the food and agricultural industries by fortifying cultures and crops.

Most of the debate surrounding gene editing does not regard somatic therapy, since it can only impact an individual. The primary controversy arises in germline therapy, since the effects of this alteration can be passed onto, and will therefore directly impact, future generations.

For germline therapy, some scientists and ethicists fear that its normalization will, in the future, bring about a common practice of genetic enhancement. Genetic enhancement is "the use of genome editing to change non-medically relevant characteristics, such as athletic ability or height". The outcome of this possibility is "designer babies," or children who have been genetically modified before birth to be genetically superior to others. These individuals would be more capable of surviving dangerous illnesses, and may have a higher chance of being selected by mates, thus having a higher likelihood of passing on their modified genes to future generations. This also relates to a concern that, due to the possibilities gene editing offers, only the wealthy will be able to access the treatment. The belief is that this fact would create more of a divide between socioeconomic classes, and eventually possibly construct a society in which genetically engineered individuals rank superior to others.

One of the most prominent concerns regarding gene therapy is the overall safety of it. Although CRISPR-Cas9 is far more successful than previous technologies, it still may result in off-target edits and undesired mutations. Additionally, because CRISPR-Cas9 is such a young technology, there is still much that scientists do not understand about it. Because of this, most researchers acknowledge that it should not be used clinically until further research has proven that it is safe. Some scientists differ, arguing that no amount of research will allow gene editing to surpass the benefits of current genetic technologies, but most agree that there are many situations to which only genome editing can provide a solution.

Another argument against gene editing is that the patient, which, in most cases, would be an embryo, and the affected population, which are future generations, are unable to give informed consent to the treatment. Editing the genome of an individual, either directly (for embryos) or indirectly (for future generations), before they are even born is a major source of unease for many ethicists.

Other opposers are morally or religiously influenced and are against gene editing because of its use of artificially created embryos. Federal funds cannot go towards research that creates, destroys, or genetically edits embryos because of these oppositions. Many researchers agree that gene editing should not yet be used in genuine reproduction; however, many argue that gene editing research in human embryos is vitally important in order to learn more about the human genome, and ought to receive funding.

Global Guidelines and Positions:

In December of 2015, the National Academies of Sciences, Engineering, and Medicine (NASEM) began an initiative regarding the global pursuit of human gene-editing research, specifically addressing "the clinical, ethical, legal and social implications of human gene editing". The committee heard from individual patients, community representatives, and state legislators in a series of public forums, and heard from experts in an international summit that same month. The International Summit of Human Gene Editing was hosted in Washington, D.C. by NASEM, along with the British Royal Society and the Chinese Academy of Sciences. The summit, which lasted three days, was summarized in a February 2017 report, titled *Human Genome Editing: Science, Ethics, and Governance*. The report extensively laid out the content of the debate, and identified seven core principles to act as guidelines for research and application of gene editing:

1. Promoting well-being: Pursuance of gene editing must be focused on ensuring public health, for example, through treatment or prevention of disease.
2. Transparency: Researchers must be open about and freely share their information with the global community.
3. Due care: Patients in research trials must be treated with extreme caution and care and be informed of every step taken.
4. Responsible science: Experiments must be designed and analyzed professionally.
5. Respect for persons: Individuals must be free to make their own decisions. Individuals must be equally valued, not treated as less than human because of their genetic disability.
6. Fairness: Similar cases must be treated similarly. Research capabilities and products from research must be accessible to all communities.
7. Transnational cooperation: The international scientific community must resolve to work collaboratively in their research, respectful of international standards as well as individual nations' or cultures' policies (*Human Genome Editing*).
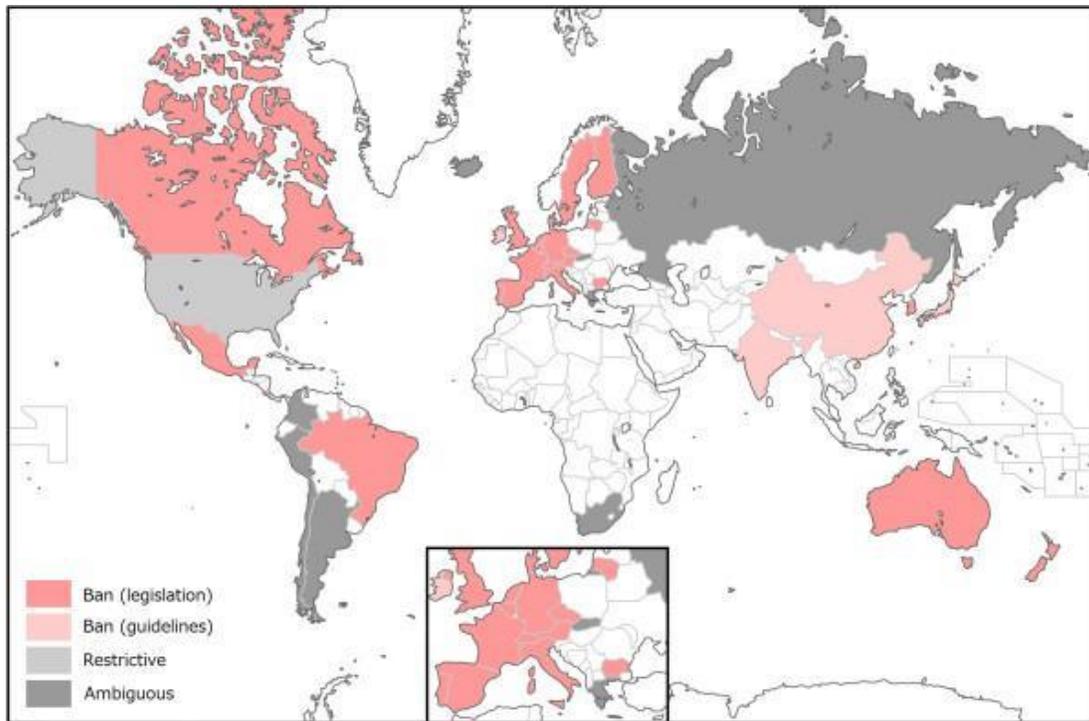
Figure 3. A depiction of the strictness of global regulations on germline gene editing based on a 2014 survey. Of thirty-nine countries, twenty-five had a legislative ban on the practice (pink), four had a ban based on guidelines (light pink), one had restrictive policies but no ban (light grey), and nine had unclear or incomplete legislation (grey).

In 2014, geneticists Motoko Araki and Tetsuya Ishii conducted a survey of thirty-nine countries to gauge how strict the regulations on germline gene editing were around the world. They discovered that twenty-five countries had legislation that explicitly banned germline genetic modification, most of which were European but also included Australia, Brazil, Mexico, and Canada. Four countries-- China, India, Japan, and Ireland-- banned gene editing simply through guidelines, which are more difficult to enforce than laws and are subject to change. The United States was the only country that had restrictive policies, but no explicit ban. The remaining nine countries-- Russia, Slovakia, South Africa, Greece, Iceland, Argentina, Chile, Colombia, and Peru-- were unclear in their policies regarding germline gene editing.

Most Western countries have explicit bans on germline genetic modification. Many of these bans are specifically due to a ban on the use of artificially created human embryos in the lab and the lack of federal funding towards such research, not on the practice of genome editing itself. The United States has strict regulations on the development of products before they go on the market, but once a product is in use there is little surveillance-- scientists can utilize it for whichever purpose they see fit. However, once gene therapy is proven to be safer, the United States would likely be one of the first to allow germline genome editing trials in adult human patients. The United Kingdom has historically had much stricter laws, closely overseeing pre-market development as well as monitoring use of human embryos in labs. In 2016, however,

scientists in the UK were granted permission to use human embryos in genetic research. This was a major advancement for the country, and the hope is that this change in regulations and the resultant research will have an impact on other countries with restrictive policies. However, most of the European Union as a whole continues to prohibit the use of human embryos in laboratory research.

China previously led the world in developments regarding genome editing and the use of CRISPR. With few regulations regarding research on and use of the technology, advancements were constantly being made and several successful clinical trials took place. The country heavily invested in biomedical engineering as a result of the success of the industry. Scientists gained approval for clinical trials almost immediately, and patients eager for a cure were more than ready for treatment. Many international scientists were very concerned at China's widespread use of CRISPR, concerned that as the technology was still being extensively researched and developed, it should not yet be used so publicly. Their concerns recently proved accurate when, in November of 2018, a Chinese researcher named He Jiankui informed the public of the birth of twin girls, whose embryos he had altered with CRISPR-Cas9. He had used the tool to make the embryos resistant to HIV, and then implanted those embryos into women. He received immense international backlash for his risky behavior, and his actions resulted in a governmental crackdown on the use of gene editing in humans. Far more restrictions were put into place, and harsh penalties for those who failed to follow the restrictions were created. Since this incident, China's progress has slowed dramatically and it has fallen behind in terms of development. South Korea's position on gene editing is similar to the United States, if not more lenient. The country has an innovative focus when it comes to scientific development, so researchers have very open access to experimental technologies and drugs that are still in development. Use of these items requires far less backing evidence than in the United States. Some other East Asian countries have a system that evaluates the risk of a potential advancement. For example, Japan and Singapore have a system that initially ranks the risk level of a technology, and this classification determines the level of scrutiny with which development is monitored.

Most other countries have not expressed a specific stance on gene editing, which can be attributed to a lack of shared information either to or from a country, inadequate equipment, inability to pursue research, et cetera. The technology is still very new, and most nations have not begun their own research on its implications, but the possibilities that have been made known spark an ethical debate across the entire globe.

What to include in a resolution:

- Ethical Considerations of pros and cons of gene editing
- Suggestions for regulations on gene editing research
  - Draw the line between legal and illegal
    - Allowing human testing, animal testing, etc.
    - Where to stop allowance of gene editing in humans, if at all
  - Giving researchers free rein vs. guidelines

○ Reception of public funding vs. privately funded by research institute
● Applications of gene editing (beyond medical purposes)

Questions to Consider:

● How is gene editing treated in the country you are representing? How does your stance compare to the stance of others?
● What are the future implications of gene editing? What questions does it bring up about evolution and the passing on of edited genes?
● Are strict federal regulations which forbid research on gene editing generally beneficial, because it avoids the very dangerous negative outcomes, or detrimental, because it gives the scientific community in the country a dramatic setback?
● Does the danger of possible mutations outweigh the benefits of successful genetic alteration? Should we pay more attention to the myriad of success stories and benefits CRISPR offers, or the few cases in which CRISPR has caused more harm than good?
● Do all disabilities (e.g. autism) and illnesses need to be "cured" through the use of gene editing? Where is the line at what should and should not be altered drawn? Who draws that line?
● Is the idea of "designer babies" realistic, or does it appear too dystopian for real life? How far will some people go to get a "perfect" child? How do you measure the humanity of a "designer baby"?

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Topic C: Promoting the Involvement of Women and Youth in Government

Introduction**:**

From local to national levels, involving oneself in government is an essential role of being a citizen. Taking advantage of the opportunities provided to participate in government is paramount to having one's voice be heard. However, for many groups of people, their access to governmental positions and resources are restricted, leaving their voices unheard. Among these disenfranchised groups are women and young adults, who face several obstacles in their path. Women and youth are underrepresented as voters, as leaders, and as position holders, despite their numbered population and their own abilities. These obstacles are not always blatant, but exist as adverse advertising, structural barriers and limiting institutions, and discriminatory attitudes and beliefs that socially pressure them out of this path. In some parts of the world, this marginalization from the political sphere is undisguised obstruction, and thus the United Nations seeks to open up these opportunities for all people. These discriminatory attitudes can often lead to constructed beliefs that these groups even lack the ability to contribute in the first place, and so the world loses these unique voices that would provide diverse ideas and viewpoints to an often echoed landscape. It is of vital importance, then, that the opportunities for these groups be

advocated for and be vocally pronounced, so that their voice may be heard for those decisions that vitally affect not only their lives, but everyone around them.

History:

Many of the barriers that deny women the same rights as men fall due to culture within the country. Many of the societal norms in these countries prevent women from getting any sort of societal, economic, or political power. Sexual harassment, unfair hiring, career regression, and the wage gap are some of the major factors that prevent women to advance in their industry and receiving fair pay. To combat this, the UN recently came out with the Sustainable Development Goals. The 4th and 5th goals in this help to empower women through education, healthcare, and many other factors in order to achieve gender equality and women's empowerment. In a landmark decision during the 34th Session of the General Conference, UNESCO made its greatest commitment to gender equality by denoting gender equality as one of two Global Priorities for the 2008-2013 Medium-Term Strategy.

At the same time, youth often feel disconnected and left out of mainstream politics and are not taken seriously. They often lack the skills and experience needed to take on big problems going on in society and are not looked at with value. In nearly a third of countries, the minimum age to enter parliament is 25 years old. Because of this instead of youth trying to voice in political parties, we see more youth entering rather political movements for the values and ideas they believe in. This is true all over the country as most countries around the globe do not advocate or promote the involvement of youth in government. Some Arab states in 2000 addressed the need for youth involvement in decision making, yet did not offer any solutions nor have taken any. Up to this point, it falls on the youth and political movements for any youth to be involved in politics.

Youth empowerment on its own is a fairly modern issue. As the world becomes more interconnected as a result of internet access and increased world connections, we are able to bear witness to the growing connections that youth make to each other worldwide, with exposure to different cultures and opinions and they may never have gotten the chance to connect to in previous times. As a result, they carry valuable knowledge and foresight on how the world should be progressing forward, considering that children will always be representing the future. Different programs worldwide have been created to tackle obstacles preventing youth from having a voice on local levels, but as we forge our way into the future, it is important that a stronger, more worldwide connection is also built for these goals.

In contrast, women empowerment and ability to have governmental ability is an issue long outspoken in time. While social roots may have begun far before then, political prowess can be traced to the late 19th and early 20th century, when various countries began to pass bills allowing women to vote or preventing discrimination. However, the ideologies of feminism and empowering women deals with promoting women to the forefront, granting them visibility and a voice, to help catalyze a larger social movement in aim of these goals.

The history of such movements typically seeks to dismantle the stereotypes and common roles that are commonly constructed along gender lines within modern society. In order to do so, it is important to free women from the domestic and service role that they have often been observed in. Instead, part of empowerment nad Wartimes often saw women taking over the vacant roles that men would leave to fight; however, as wars came to their end, women were seen rapidly being removed from these positions, sent back to their roles. It is important then that women are both granted these rights and voices and allowed to keep them, that as a society, these advantages are not taken away in favor of convenience or the biased benefit of others.

Historically, UNESCO has been at the forefront of making these policies and encouraging them across international boundaries, supporting both youth empowerment and gender equality, in politics and beyond. Listing the empowerment of women and girls as its fifth goal of sustainable development, it was last review in-depth in 2017, but data and statistics revolving around the issue is tracked on a yearly basis, and can be found here: https://sustainabledevelopment.un.org/sdg5.

Current Issues:

Youth empowerment is the process in which young children are tasked with and encouraged with taking charge of their lives. They do this by taking action in their lives with their political, social, and cultural beliefs. Through history and still today, most of youth empowerment comes from participation in youth empowerment programs, whether these programs originate from non profits, schools, or government funded organizations.

However, there is a clear distinction between youth development and youth empowerment. Youth development is the idea of developing the person itself and solely focused on that. On the contrary, youth empowerment is focused on changing the community around the individual by developing the individual. Usually, these youth empowerment programs are focused on creating healthier and better quality lives for children at risk or underprivileged or financially stressed families.

There are many youth empowerment programs around the world and in many different countries and backgrounds. For example, youth empowerment programs in India include educating the youth for the greater community while some include educating youth on politics for the future. The United States has truly countless youth empowerment programs all over the country that focus on youth getting over social and economic boundaries. Youth empowerment is also very important to governments all over the world. For example, every major political party in the United States supports youth empowerment, in addition to political parties in continents such as Europe, Africa, and South America.

Also important is women's empowerment, which is the process of providing women with the necessary power and education to make life-changing decisions in the society they live in. For the bulk of history, the ability of women to voice their opinions and speak out in favor of their own opinions has been shut down and silenced by cultural norms and obstacles both physical and mental. However, women's empowerment continues to be a fast-building movement, gaining momentum by the day.

The main ways by which empowerment is sought is by political and economic changes. Changes in these three elements can be the catalysts for women empowerment. Politically, women empowerment would involve gender equality and the right for women to vote in both the public and private sphere. As of 2017, the global average of women that hold lower and single house parliament positions is 23.6%. The difference between women being able to participate in politics and not is often differentiated by the country and culture within that country. For example, in Western countries and cultures it is not uncommon to see women hold significant positions in government, while in other countries and cultures it is frowned upon and illegal for women to see any political power. However, some people and countries say that this participation doesn't have to be only politics and that it could be participation in schools and households, rather.

Economic issues carry their own host of problems. The ability of women to have economic control over their own lives is just as important, as women seek to gain incomes on their own and increase their own ability to access resources. It is thus also defined by an ability to make decisions that actively benefit their own standing or for their families and communities. While the specifics of these definitions can vary across cultural boundaries, it is common to visualize the issue within the gender pay gap and poverty reduction. Increasing economic control thus ties directly into women's access to government, because it all aims towards the end goal of giving disenfranchised groups a voice.

Current Positions:

African:

The ability of women to find their voice in African government varies drastically between countries. In one case, Rwanda is the only country worldwide where women represent the majority of seats in parliament, but in stark contrast, Morocco only has one female cabinet member. However, gender equality is fiercely driven by the adoption of the African Charter of Human and People's Rights, which seeks to end discrimination and violence against women.

The African Youth Charter represents the culmination of efforts to empower youth in government; it seeks to address key issues such as employment, sustainable livelihoods, and access to education. Africa also has the largest concentration of youth worldwide, marking this as a starkly important issue for them to tackle. In addition, 2009 to 2018 was declared as the Decade of Youth Development, in order to bring attention to the resources necessary for youth to speak out for themselves and have access to the resources they need.

Asia/Pacific:

Both movements in Asia are headed by the UN group known as ESCAP, which stands for Economic and Social Commission for Asia and the Pacific. ESCAP's plan for women empowerment is promoted by the "Gender Equality and Women's Empowerment in Asia and the Pacific", which defines the platforms of action by which they will be operating for their goals, and is headed by Beijing. Youth empowerment follows the World Programme of Action for Youth, which is a blueprint of international action and collaboration in search of opportunities to allow youth to seize advancement.

Latin America/Carribean:

Latin America and the Carribean typically follow worldwide measures implemented by groups such as UN Women, such as the Commission on the Status of Women, which dictates much of the measures dedicated to this cause. On their own, Panama adopted its "Declaration of Panama", which sought to increase international collaborations and joint efforts of women's ministers to reach a position that would favor women.

Sustainable youth development in Latin America is bolstered by the International Youth Foundation, which connects young people with resources necessary for opportunity and training. Access to education is a primary goal, as only around 35% of youth are even able to attend school and study for their future.

Eastern European:

While legal protections and female representation is typically considered stronger in these regions, violence and discrimination remain rampant, representing this bloc's primary goal in aiding women empowerment. By removing obstacles such as these, they can help ensure the safety of women as they enter higher governmental positions and gain more opportunities. For youth government, Eastern Europe follows much of the tendencies as their Western counterparts and the declarations of the EU.

Western European and Others (U.S., Canada):

The United States is also one of the biggest players in the goal of women empowerment. From allowing women to vote in 1920 to banning discrimination of women in the 60s and 70s, the United States has taken a very active role in the empowerment of all women in every aspect of society. Europe and other developed countries have adopted similar stances, and worldwide, this bloc typically leads the front of women empowerment and government access.

Concerning youth empowerment, Europe has made strides in their adoption of the Treaty of the Functioning of the European Union, where Article 165 allows for the EU to promote youth participation in everyday life. They primarily focus on civic engagement, where the promotion of youth interaction with government is benefitted. The U.S. typically sees its youth-empowerment programs conducted by youth themselves, as many see the programs as their own form of civic engagement, and they encourage others to do the same.

What to Include and Consider in a Resolution:
- Steps to empower and promote women and youth involvement
- Education programs for involvement
- Respecting different cultural values in creation of resolutions
- How best to funnel money towards different projects

Questions to Consider:
- How does your country feel about women and youth political participation? Have they made any steps towards these goals?
- Does your country share similar sentiments with members of its cultural group and geographical region?

- What kind of involvement programs can be made in goals towards these ends? Are these programs redundant? Can they be expected to fulfill its purpose within your own country?
- How does UNESCO handle these problems historically, and what kind of direction can you take moving forward?
- What kind of opposition do you expect to face, whether culturally or legally?
- How can you best implement these programs within your own country?

Useful Links:
- https://obamawhitehouse.archives.gov/the-press-office/2015/09/27/fact-sheet-promoting-gender-equality-and-womens-empowerment
- https://www.unwomen.org/en/what-we-do/leadership-and-political-participation
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