Country: The Kingdom of Norway
Issue: Global Regulation of CRISPR Technology
Committee: Legal Committee 1

ISSUE AND POSITION:

The Kingdom of Norway sees CRISPR gene editing as a very exciting new tool to help humanity agriculturally. There have been many CRISPR-related agricultural projects within our nation, including projects to sterilize farmed salmon and edit strawberries to be fungal resistant. However, our nation is aware of the possible risks that CRISPR poses to the environment, such as the spreading of edited genes to the entirety of a natural population, or the hindrance towards the well-being of animals. Therefore, the Kingdom of Norway believes that, at least until 2032, CRISPR-edited organisms should stay only within contained environments, and need to be thoroughly examined for possible environmental harm before deliberately released. Our nation also heavily opposes the editing of the human genome, and believes that any research done into nullifying genetic diseases should come well after the confirmation of safety for every other CRISPR related field.

BACKGROUND INFORMATION:

Gene editing in Norway falls under the regulation of the Gene Technology Act, passed in 1993, prior to the invention of CRISPR. The act states that gene editing research may take place under the regulations of "contained use," and that any "deliberate release" of modified organisms, which includes field research, greenhouse usage, wild release, trade, sale, and other categories, must receive approval from the King before it is permitted. This act was passed in order to prevent any negative genetic information from breeding into the natural population of a species, and still stands today after the invention of CRISPR. However, our nation is excited to see more research done into this front. In 2018, the Kavli Prize in Nanotechnology, an award of US$1 million sponsored by both Norwegian philanthropist Fred Kavli and the Norwegian Academy of Sciences and Letters, went to the inventors of CRISPR, Emmanuelle Charpentier and Jennifer Doudna, as well as Virginijus Siksnys for his independent CRISPR research. Norwegian universities have also sponsored various CRISPR studies, such as a test to the modifiability of strawberry genes at the Norwegian University of Life Sciences and the sterilization of farmed salmon at the Institute of Marine Research, supported financially by the Research Council of Norway.

PROPOSED ACTION:

The Kingdom of Norway believes that CRISPR research should be given a full decade of research before any widespread release of modified organisms takes place. We propose that the resolution passed at this committee needs formal definitions for containment that will hold until 2032, where the history and safety concerns of CRISPR will be reviewed and regulations will be modified appropriately. We also believe that the resolution should define clear levels of biological complexity (i.e. plants, invertebrates, vertebrates, primates, humans), and that the resolution should require global research to step through these levels properly before moving on to the next, as we should have a complete and thorough understanding of CRISPR before any human modification is attempted.

We believe that there exists a safe and promising future with CRISPR technology. However, we must take a slow, methodical, and intelligent path in order to get there.

BIBLIOGRAPHY:

Alvin, Carl-Henrik L. "Gene Editing of Cultivated and Wild Strawberry (Fragaria x Ananassa and Fragaria Vesca) with CRISPR/cas9 Knocking out F3H." *Brage NMBU*, Norwegian University of Life Sciences, Ås, 2020, https://nmbu.brage.unit.no/nmbu-xmlui/handle/11250/2682831.

"Gene Technology Act." *Regjeringen.no*, Miljøverndepartementet, 2 Apr. 1993, https://www.regjeringen.no/en/dokumenter/gene-technology-act/id173031/.

Guglielmi, Giorgia. "Million-Dollar Kavli Prize Recognizes Scientist Scooped on CRISPR." *Nature News*, Nature Publishing Group, 31 May 2018, https://www.nature.com/articles/d41586-018-05308-5.

Torp, Ingrid. "Controversial CRISPR-Method Used to Make Farmed Salmon Sterile." *Sciencenorway.no*, ScienceNorway, 22 Jan. 2021, https://sciencenorway.no/fish-farming-genetics-salmon/controversial-crispr-method-used-to-make-farmed-salmon-sterile/1800908.