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Ethical Deliberations on the Gene-Editing CRISPR-Cas9 Designer Babies: Islamic Perspective

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ABSTRACT

The discovery of the genetic editing tool, CRISPR-Cas9, has enabled us to edit the human genome by removing or adding sections of the DNA. Scientists hope to eradicate some fatal diseases by using this technology. In short, CRISPR allows us to rewrite the code of life in contrast to discovery of the double helix where we can only read and understand our genome. Both somatic and germline editing can be done by this technology; however, they involve different ethical standpoints. The latter is controversial as it affects the reproductive cells, hence raising complex ethical dilemmas. Jennifer Doudna, a Noble prize winner in 2020, has contributed to the discovery of the CRISPR technology. She has never thought that this technology might be morally misused by others like the case of the Chinese scientist named He Jianki who produced the world's first CRISPR babies (Isaacson, 2021). Jianki's goal was to make the babies and their decedents immune to a deadly HIV virus; he knew that this announcement would be earth-shaking news that would ignite outrage among conservatives and religious scholars in the West and Islamic world alike.

Heated ethical deliberations have taken place following this incident by various groups, and each group believes that they have valid arguments for their reasoning. The opponents of the CRISPR germline editing argue that this technique violates one of the most important moral principles which is autonomy. Informed consent is an important element to ensure the subject's agreement to the treatment or procedure. The effect of germline editing will extend to future generations where autonomy would be neglected in this case (Hammerstein, 2019). This is concurrent with the moral view of Francis Collins, the former director of the National Institutes of Health (NIH). Collins argued that humans should not have the hubris to fiddle with nature (Skerrett, 2015). The CRISPR supporters, on the other side, argue that it would be immoral not to choose what are the best genes for you and your child (Savulescu, 2001), especially if germline editing can alleviate human suffering. The famous philosopher who advocated this approach is Julian Savulescu, a professor in practical ethics at Oxford University.

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In Islamic bioethics, religious scholars make an ethical distinction between somatic and germline editing. They based their moral reasoning on two broad questions: what kind of cells will be edited, and what is the aim of editing? They legalized the use of somatic gene editing as it is confined to one person and does not affect the offspring; hence no ethical concerns arise. However, the majority of the scholars have condemned the use of germline editing and called for a temporary moratorium especially if mixing lineage is at stake (Ghaly, 2019). Following the news of the designer babies and its widespread media coverage, the International Islamic Fiqh Academy (IIFA), which represents Muslim countries and communities, convened a session in 2019 in the United Arab Emirates. They issued resolutions that corroborate the international calls to halt germline editing until further research proves its efficacy and safety. Moreover, they called to restrict the use of this technique for medical purposes and not for aesthetics or enhancement. Also, the committee stressed that human dignity should be preserved without exploitation. Therefore, more regulations are warranted (International Fiqh Academy, 2019).

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