UNIVERSITY OF LIFE SCIENCES ”KING MIHAI I” FROM TIMISOARA
”YOUNG PEOPLE AND MULTIDISCIPLINARY RESEARCH IN APPLIED LIFE SCIENCES”

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Ethical Dilemmas of Gene Editing: How Is Public Opinion Shaped?

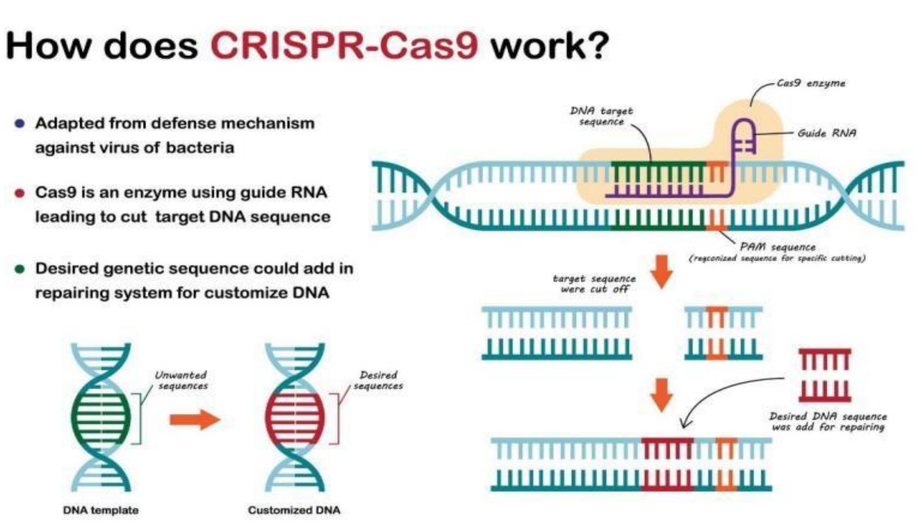
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Abstract: *CRISPR-Cas9 is an innovative gene-editing technology with significant potential in medicine, agriculture and biotechnology. However, its use raises important ethical questions concerning safety, genetic modifications and possible long-term consequences. This study aims to investigate whether presenting the benefits and risks of CRISPR technology influences public attitudes towards genetic modification. By comparing different types of information, the research explores how knowledge, ethical concerns and personal perceptions contribute to public opinion. .*

• Introduction

Gene editing has become one of the most important developments in modern biotechnology. CRISPR-Cas9 allows scientists to modify DNA with high precision, creating new opportunities for treating genetic diseases and improving agricultural crops.

Despite its potential benefits, the technology raises ethical concerns related to human genetic modification, safety, biodiversity, accessibility and unintended genetic changes. Public opinion plays an important role in determining how these technologies are accepted and used in society.



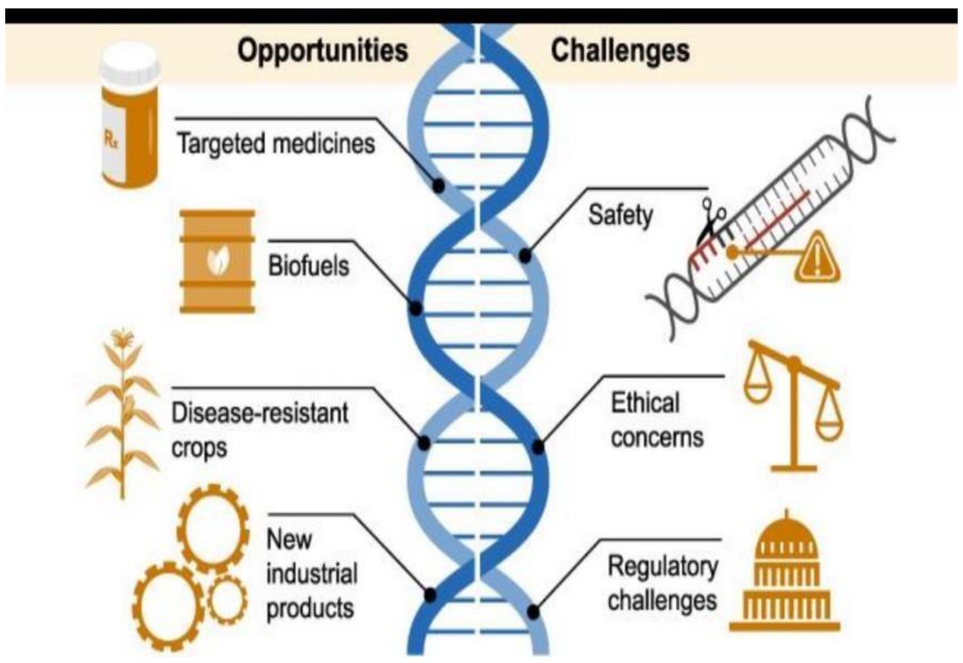
• Material and method

The research proposes a questionnaire-based study involving participants from different age groups and educational backgrounds.

• Results and discussions

The findings suggest that the way scientific information is presented may influence public perception.

Information emphasizing medical benefits, such as treating inherited diseases, may increase acceptance of CRISPR technology. In contrast, information focusing on genetic risks, ethical dilemmas and unpredictable consequences may increase public hesitation. Balanced information is expected to encourage more informed opinions and a better understanding of both the opportunities and limitations of gene editing



• Conclusions

Public acceptance of CRISPR technology is influenced not only by scientific knowledge but also by the way information is communicated. Presenting both benefits and risks may help people develop more informed and balanced opinions. Transparent scientific communication and ethical responsibility are essential for the responsible development and application of genetic engineering.