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BIOL 294 Genetics

CRISPR Gene Editing and its impact on treating Genetic Disease

A recent news article explains how CRISPR gene editing technology is being used to treat serious genetic diseases like sickle cell anemia. Scientists have developed a therapy that edits a patient's DNA to help their body produce healthier blood cells. This treatment works by targeting a specific gene that normally turns off fetal hemoglobin, which is a type of hemoglobin that can reduce disease symptoms. By editing this gene, patients can produce more fetal hemoglobin, helping relieve the effects of the disease.

This topic is directly related to genetics because it involves changing DNA sequences to treat inherited disorders. CRISPR is a powerful genetic tool that allows scientists to precisely cut and modify DNA. Unlike older methods, CRISPR is faster, more accurate, and more efficient, making it a major breakthrough in genetic research and medicine.

Scientific research supports the claims made in the news article. Studies show that CRISPR base therapies are already being tested in clinical trials for multiple genetic diseases, including blood disorders and immune system conditions. These therapies involve editing genes in patient cells and then reintroducing them into the body to correct the genetic problem.

Overall, the information in the news article appears to be accurate and supported by scientific evidence. CRISPR technology is rapidly advancing and has the potential to transform how genetic diseases are treated. However, challenges such as cost, accessibility, and safety still remain. Despite these issues, CRISPR represents an important step forward in genetics and modern medicine.

Word Cited Page

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