

## Gene Therapy Quiz PDF

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### Which regulatory body oversees gene therapy in the United States?

- WHO
- EMA
- FDA
- CDC

### What are some challenges faced by gene therapy? (Select all that apply)

- Immune response
- Delivery issues
- High success rate
- Ethical concerns

### What is the term for a gene that is transferred from one organism to another?

- Transgene
- Genome
- Chromosome
- Alleles

### Which of the following are ethical considerations in gene therapy? (Select all that apply)

- Cost of treatment
- Long-term effects
- Accessibility to all patients
- Germline modifications

### What are the main challenges in delivering genes to target cells in gene therapy?

**Discuss the ethical implications of using CRISPR technology in gene therapy.**

**How does the use of viral vectors in gene therapy work, and what are the associated risks?**

**Which diseases have been successfully treated using gene therapy? (Select all that apply)**

- Certain types of blindness
- Severe Combined Immunodeficiency (SCID)
- Influenza
- HIV (in investigational treatments)

**Which of the following is a genetic disorder that gene therapy aims to treat?**

- Diabetes
- Cystic Fibrosis
- Hypertension
- Asthma

**What year was the first successful gene therapy performed?**

- 1980
- 1990
- 2000
- 2010

**What is the primary goal of gene therapy?**

- To enhance athletic performance
- To alter genetic material to treat or prevent disease
- To create genetically modified organisms for agriculture
- To clone animals

**What is a major ethical concern associated with germline gene therapy?**

- Cost of treatment
- Long-term environmental impact
- Changes can be inherited by future generations
- Difficulty in administering treatment

**Which type of gene therapy targets non-reproductive cells?**

- Germline Gene Therapy
- Somatic Gene Therapy
- Viral Gene Therapy
- CRISPR Gene Therapy

**Which vector is commonly used in gene therapy for delivering genes?**

- Bacteria
- Fungi
- Viral Vectors
- Plant Cells

**What are potential side effects of gene therapy? (Select all that apply)**

- Immune reactions
- Insertional mutagenesis
- Weight gain

Off-target effects in gene editing

**Which of the following are methods of gene delivery in gene therapy? (Select all that apply)**

- Viral Vectors
- Liposomes
- Direct injection of naked DNA
- Antibiotics

**Describe a case study where gene therapy was successfully used to treat a genetic disorder.**

**Explain the difference between somatic and germline gene therapy.**

**Gene therapy can be used to treat which of the following conditions? (Select all that apply)**

- Hemophilia
- Muscular Dystrophy
- Common Cold
- Certain types of blindness

**In your opinion, what is the future potential of gene therapy in medicine, and what advancements are needed to realize this potential?**

