

Innovations in CRISPR Technology for Cancer Research

Skyler Clark

PhD

Sorbonne University

21 Rue de l'École de Médecine, 75006 Paris, France

Adrian Davis

Dr.

University of Milan

Via Festa del Perdono, 7, 20122 Milano MI, Italy

Rowan Williams

Prof.

Seoul National University

1 Gwanak-ro, Gwanak-gu, Seoul 08826, South Korea

Abstract. CRISPR technology has revolutionized cancer research, offering precise gene-editing capabilities that enhance our understanding of cancer genetics. This article reviews recent innovations in CRISPR-based applications, focusing on their role in identifying genetic mutations and developing targeted therapies. The authors discuss the potential and challenges of CRISPR in clinical settings, highlighting its transformative impact on cancer research and treatment strategies.

Keywords: CRISPR, Cancer Research, Gene Editing, Genetic Mutations, Targeted Therapy

Introduction

CRISPR technology has rapidly advanced the field of cancer research, enabling precise editing of genetic material to study cancer pathogenesis and develop targeted therapies. This article explores the latest innovations in CRISPR applications, including genome-wide screens and personalized medicine approaches. The discussion highlights the potential of CRISPR to transform cancer treatment, while also addressing challenges such as off-target effects and ethical considerations. By reviewing cutting-edge research, the authors provide insights into the future of CRISPR in oncology.

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References

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