

# Advancements in Canine Gene Therapy

Department of Veterinary and Biomedical Sciences: Western College of Veterinary Medicine, Canada

Canine gene therapy has emerged as a promising avenue for treating genetic disorders in dogs, offering potential solutions for conditions previously deemed untreatable. This article reviews recent advancements in gene therapy for canines, focusing on the use of CRISPR technology, viral vectors, and stem cell applications. We also discuss the ethical considerations and future prospects of these innovative therapies.

Canine Gene Therapy; CRISPR; Genetic Disorders; Stem Cell Therapy; Viral Vectors; Ethical Considerations

Genetic disorders in dogs can significantly impact their quality of life and health. Recent advancements in gene therapy, particularly the use of CRISPR technology, have opened new possibilities for treating these conditions. This article explores the latest research and clinical applications of gene therapy in canines, focusing on the use of CRISPR technology, viral vectors, and stem cell applications. We also discuss the ethical considerations and future prospects of these innovative therapies.

Canine gene therapy has emerged as a promising avenue for treating genetic disorders in dogs, offering potential solutions for conditions previously deemed untreatable. This article reviews recent advancements in gene therapy for canines, focusing on the use of CRISPR technology, viral vectors, and stem cell applications. We also discuss the ethical considerations and future prospects of these innovative therapies.

Thaddeus Ashcombe, Department of Veterinary and Biomedical Sciences: Western College of Veterinary Medicine, Canada, E-mail: ash76\_tha@yahoo.com

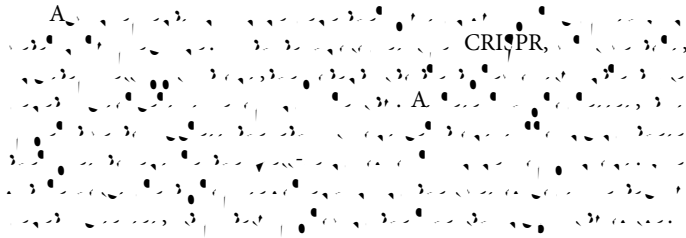
01-Sep-2024, Manuscript No. jvmh-24-150328; 03-Sep-2024, Pre-QC No. jvmh-24-150328 (PQ); 24-Sep-2024, QC No. jvmh-24-150328; 27-Sep-2024, Manuscript No. jvmh-24-150328 (R); 30-Sep-2024, DOI: 10.4172/jvmh.1000256

Thaddeus A (2024) Advancements in Canine Gene Therapy. J Vet Med Health 8: 256.

© 2024 Thaddeus A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.



C



1. Hill D, Sugrue I, Arendt E, Hill C, Stanton C, et al. (2017) Recent advances in microbial fermentation for dairy and health. *F1000Research* 6: 1-5.

2. Nuttall TJ, Marsella R, Rosenbaum MR, Gonzales AJ, Fadok VA, et al. (2019) Update on pathogenesis, diagnosis, and treatment of atopic dermatitis in dogs. *J Am Vet Med Assoc* 254: 1291-1300.

3. Santoro D (2019) Therapies in canine atopic dermatitis: an update. *Vet Clin North Am Small Anim Pract* 49: 9-26.

4. Bond R, Morris DO, Guillot J, Bensignor EJ, Robson D, et al. (2020) Biology, diagnosis and treatment of malassezia dermatitis in dogs and cats: clinical consensus guidelines of the world association for veterinary dermatology. *Vet Dermatol* 31: 75.

5. Olivry T (2011) Is the skin barrier abnormal in dogs with atopic dermatitis? *Vet Immunol Immunopathol* 144: 11-6.

6. Mueller RS, Rosenkrantz W, Bensignor E, Kara -T cza J, Paterson T, et al. (2020) Diagnosis and treatment of demodicosis in dogs and cats: clinical consensus guidelines of the world association for veterinary dermatology. *Vet Dermatol* 31: 5-27.

7. Cicero L, Fazzotta S, Palumbo V D, Cassata G, Monte AI, et al.(2018) Anesthesia protocols in laboratory animals used for scientific purposes. *Acta Biomed* 89: 337-342.