

AN OVERVIEW ON TRANSGENIC ANIMALS AND NUTRITIONAL RESEARCH

Anurag Verma*

*Professor & Principal,

Department of Pharmacy, Teerthanker Mahaveer University,

Moradabad, Uttar Pradesh, INDIA

Email id: tmuipr@gmail.com

DOI: 10.5958/2249-7137.2021.02497.6

ABSTRACT

The biological functions of proteins, particularly secondary gene products generated by protein catalysts, may be studied using transgenic mice. Their use as comparison models for normal and abnormal metabolism is beneficial to nutrition and associated studies. Although transgenic animal-derived food, nutritional products, and components have yet to reach customers, the technology to make them is improving and yielding encouraging results in lab or farm animals. Regulatory government bodies have already made recommendations and regulations in preparation of the introduction of these products and components. This research examines existing methods for generating transgenic animals, assesses their scientific and commercial potential, and considers nutrition-related issues.

KEYWORDS: *Nutrition, Transgenic Animals, Transgene, Targeted Mutants.*

REFERENCES:

1. Pinkert CA. Transgenic Animal Technology: A Laboratory Handbook: Second Edition. 2012.
 2. Cangussu ASR. et al., "Characterization of the Catalytic Structure of Plant Phytase, Protein Tyrosine Phosphatase-Like Phytase, and Histidine Acid Phytases and Their Biotechnological Applications,," Enzyme Research. 2018 Mar 11;2018:8240698. doi: 10.1155/2018/8240698.
 3. Quarantelli A, Veroli E, Romanelli S, Renzi M, Righi F. GMO utilization in animal nutrition. Ann. della Fac. di Med. Vet. Univ. di Parma, 2007.
 4. Wheeler M. Transgenic Animals in Agriculture | Learn Science at Scitable. Conoc. Educ. la Nat., 2013.
 5. Tudisco R, Infascelli F, Faccioli P, Terzi V. GMO and animal nutrition: the analytical methods available for individuation of transgenic plants in feedstuffs and concentrates. Bubalus Bubalis, 2001;1-7.
 6. Zduńczyk Z, Pareek CS. Application of nutrigenomics tools in animal feeding and nutritional research, J. Anim. Feed Sci., 2009, doi: 10.22358/jafs/66361/2009.
 7. Tan WS, Carlson DF, Walton MW, Fahrenkrug SC, Hackett PB. Precision Editing of Large Animal Genomes. in Advances in Genetics, 2012;80:37-97.
-

8. Chupeau Y, Prunier JP. Les perspectives du genie genetique: Les plantes modifiees et l'alimentation. Cahiers de Nutrition et de Dietetique. 1998.
9. Knapp JR, Kopchick JJ. The use of transgenic mice in nutrition research. Journal of Nutrition. 1994, doi: 10.1093/jn/124.4.461.