# Article information:

Challenges and Advances in Genome Editing Technologies in Streptomyces - PubMed
<https://pubmed.ncbi.nlm.nih.gov/32397082/>

# Article summary:

1. Streptomyces genome encodes a high number of natural product biosynthetic gene clusters (BGCs) which are not expressed or are poorly expressed under traditional laboratory conditions.

2. Various genome editing technologies have been developed to activate BGCs and NP overproduction in their native hosts, as well as in heterologous Streptomyces hosts.

3. This review summarizes the challenges and recent advances in genome editing tools for Streptomyces genetic manipulation with a focus on CRISPR/Cas systems.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article is generally reliable and trustworthy, providing an overview of the challenges and advances in genome editing technologies for Streptomyces. The authors provide a comprehensive overview of the current state of research on this topic, including the various genome editing technologies that have been developed to activate BGCs and NP overproduction in their native hosts, as well as in heterologous Streptomyces hosts. The article is well-researched and provides detailed information about the different types of genome editing tools available, such as clustered regularly interspaced short palindrome repeat (CRISPR)/CRISPR-associated protein (Cas) systems.

The article does not appear to be biased or one-sided, presenting both sides equally without any promotional content or partiality. It also does not appear to contain any unsupported claims or missing points of consideration, nor does it lack evidence for its claims made or unexplored counterarguments. Furthermore, possible risks associated with these technologies are noted throughout the article. In conclusion, this article is reliable and trustworthy overall.

# Topics for further research:

* Streptomyces genome editing applications
* Streptomyces gene activation
* CRISPR/Cas systems for Streptomyces
* Heterologous Streptomyces hosts
* Natural product overproduction in Streptomyces
* Risks associated with Streptomyces genome editing

# Report location:

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