# Article information:

Mucosal and cellular immune responses elicited by nasal and intramuscular inoculation with ASFV candidate immunogens - PMC
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10502713/>

# Article summary:

1. African swine fever (ASF) is a highly contagious and deadly disease in pigs, causing significant economic losses to the pig industry globally.

2. Researchers identified seven candidate antigens from ASFV that could potentially be used as subunit vaccines.

3. Two different immunization routes and adjuvant formulations were tested, both of which effectively stimulated humoral, mucosal, and cellular immune responses in pigs.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled "Mucosal and cellular immune responses elicited by nasal and intramuscular inoculation with ASFV candidate immunogens" discusses the development of subunit vaccines for African swine fever (ASF), a highly contagious and deadly disease in pigs. The study aims to identify potential antigens for vaccine development and evaluate the immunogenicity of these antigens through different immunization routes.

One potential bias in the article is the lack of discussion on the limitations and challenges associated with developing an effective ASF vaccine. While the article mentions that conventional inactivated vaccines have proven to be ineffective, it does not provide a comprehensive overview of the difficulties in developing a successful vaccine for ASF. This omission may give readers an overly optimistic view of the potential for subunit vaccines as a solution.

Additionally, the article primarily focuses on the positive outcomes of the study, such as the identification of candidate antigens and the stimulation of immune responses. It does not thoroughly explore any negative or unexpected results that may have been encountered during the research process. This one-sided reporting could lead to an incomplete understanding of the effectiveness and limitations of subunit vaccines for ASF.

Furthermore, there is limited discussion on potential risks or side effects associated with using subunit vaccines for ASF. The article briefly mentions that gene-deficient strains can have side effects such as swollen joints and viremia but does not provide further details or discuss any potential risks specific to the antigens used in this study. It would be important to address these concerns to provide a balanced assessment of subunit vaccines as a viable option for ASF prevention.

The article also lacks exploration of counterarguments or alternative approaches to developing an ASF vaccine. While it briefly mentions live virus-based attenuated vaccines, gene deletion vaccines, DNA vaccines, and virus vector vaccines as other research focuses, it does not critically analyze their advantages or disadvantages compared to subunit vaccines. Including this analysis would provide readers with a more comprehensive understanding of the different approaches being explored in ASF vaccine development.

In terms of evidence, the article relies heavily on the authors' own research and findings. While this is expected in a study report, it would be beneficial to include references to other studies or external sources that support the claims made. This would strengthen the credibility of the research and provide readers with additional perspectives on the topic.

Overall, while the article provides valuable insights into the development of subunit vaccines for ASF, it has some potential biases and limitations. The lack of discussion on challenges and limitations, one-sided reporting, unsupported claims, missing evidence from external sources, unexplored counterarguments, and limited consideration of potential risks are areas that could be improved upon to provide a more balanced and comprehensive analysis.

# Topics for further research:

* Challenges in developing an effective African swine fever vaccine
* Limitations of subunit vaccines for African swine fever
* Negative or unexpected results in African swine fever vaccine research
* Risks and side effects of subunit vaccines for African swine fever
* Comparison of different approaches to African swine fever vaccine development
* External studies on subunit vaccines for African swine fever

# Report location:

<https://www.fullpicture.app/item/e5e4b87e680e95bae99b362b873a8e81>