# Article information:

Amino acids contributing to antigenic drift in the infectious bursal disease Birnavirus (IBDV) - PubMed  
<https://pubmed.ncbi.nlm.nih.gov/20965538/>

# Article summary:

1. The article examines the effect of two amino acids, 222 and 254, on the antigenicity of a variant strain of infectious bursal disease virus (IBDV).

2. Molecular epidemiology was used to identify a virus designated as Del-E-222 that was identical to Del-E except for alanine at position 222. A second virus was generated using reverse genetics of the Del-E backbone to create Del-E-254 that contained an asparagine at amino acid 254.

3. Both mutations appear to be contributing to antigenic drift, as evidenced by the ability of Del-E-222 and Del-E-254 to break through the immunity induced by the parental Del-E virus vaccination.

# 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 in its reporting, providing evidence for its claims with data from experiments conducted on chickens vaccinated with parental Del-E and challenged with either Del-E-222 or Del-E-254. The results showed that both mutations appear to be contributing to antigenic drift, as evidenced by the ability of these viruses to break through the immunity induced by the parental vaccine. The authors also provide references for further reading on related topics such as real time RT PCR analysis of two epitope regions encoded by VP2 gene of infectious bursal disease viruses, detection of infectious bursal disease vaccine viruses in lymphoid tissues after in ovo vaccination, amino acid comparison of infectious bursal disease viruses placed in same or different molecular groups by RT/PCR RFLP, and infectious bursal disease: a complex host pathogen interaction.

The article does not present any potential biases or one sided reporting; however it could have explored counterarguments more thoroughly and provided more evidence for its claims. Additionally, there is no promotional content or partiality present in this article. Possible risks are noted but not discussed in detail; however this is likely due to space constraints rather than any intentional omission on behalf of the authors. All sides are presented equally and fairly throughout the article.

# Topics for further research:

* Real time RT PCR analysis of VP2 gene of infectious bursal disease viruses
* Detection of infectious bursal disease vaccine viruses in lymphoid tissues after in ovo vaccination
* Amino acid comparison of infectious bursal disease viruses placed in same or different molecular groups by RT/PCR RFLP
* Infectious bursal disease: a complex host pathogen interaction
* Antigenic drift of infectious bursal disease viruses
* Immunity induced by infectious bursal disease vaccines

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