

## Letter to the Editor

### Not So Fast on Recombination Analysis of Newcastle Disease Virus

Regarding the letter of Han et al. published earlier in the *Journal of Virology* (3) indicating that “powerful evidence” of recombination is a call for caution in the use of Newcastle disease virus (NDV)-based vaccines, I would like to suggest that the evidence for recombination is still weak. The authors cite three reports that suggest the existence of recombination, but a closer look reveals the possibility of oversight in the interpretation of the data (1, 2, 5). There is evidence of recombination in the existing GenBank NDV sequences, but unfortunately, the vast majority of these available NDV sequences have been obtained by PCR amplification of RNAs from crude field samples grown in eggs. The possibility of reporting artificial recombination caused by polymerase template switching in these samples or by laboratory-generated recombinants needs to be considered. The widespread use of live vaccines in poultry and the extensive presence of nonvirulent endemic NDVs in live bird markets and in wildlife (4) make the existence of unnoticed mixed infections in field samples likely. In the particular case of the three publications cited, the Chare et al. and Han et al. results are based on the analysis of GenBank sequences that were obtained without any purification. In the Qin et al. paper, three plaque purification steps were performed, but no attempts were made to confirm the absence of contaminant viruses in the original samples or to investigate the possibility of contamination with PCR products, which normally abound in NDV sequencing laboratories. In fact, despite the availability of a large number of NDV sequences in GenBank databases, no NDV report exists that describes the generation of a natural progeny of viruses de-

rived from a recombination event. Although I agree with the authors in the need for caution in the use of live NDV vectored vaccines, caution in the interpretation of the data is also needed.

#### REFERENCES

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*Ed. note: There is no reply to this letter.*