

Summary of the research

Title: In Vitro Assessment of Host Cell Susceptibility to H4Nx and H9Nx Avian Influenza Viruses

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Summary:

Avian influenza virus (AIV) represents a significant threat to wildlife, food security, and public health. H9 and H4 AIV strains, commonly isolated from wild waterfowl, possess the potential to cross species barriers. In this study, we evaluated the susceptibility and permissiveness of diverse avian-derived cell lines (chicken, quail, and duck) to H9Nx and H4Nx AIV strains isolated from multiple avian species.

Key findings:

All cell types supported viral growth, with duck cells showing the highest replication levels. Replication patterns varied by virus strain and host cell type, highlighting the influence of both viral and host factors on infection.

Conclusion:

These results improve our understanding of host–virus interactions, viral adaptation, and potential transmission risks, informing avian influenza surveillance and control strategies. Further studies are underway to identify the factors influencing AIV subtype–avian host interactions.