Cite this as: Shiyao HU, Yiqi CAI, Yong SHEN, Yingkuan SHAO, Yushen DU, Yiding CHEN, 2025. New characteristics of cancer immunotherapy: trends in viral tumor immunotherapy with influenza virus-based approaches. *J Zhejiang Univ-Sci B (Biomed & Biotechnol)*, 26(6): 546-556.
https://doi.org/10.1631/jzus.B2400381

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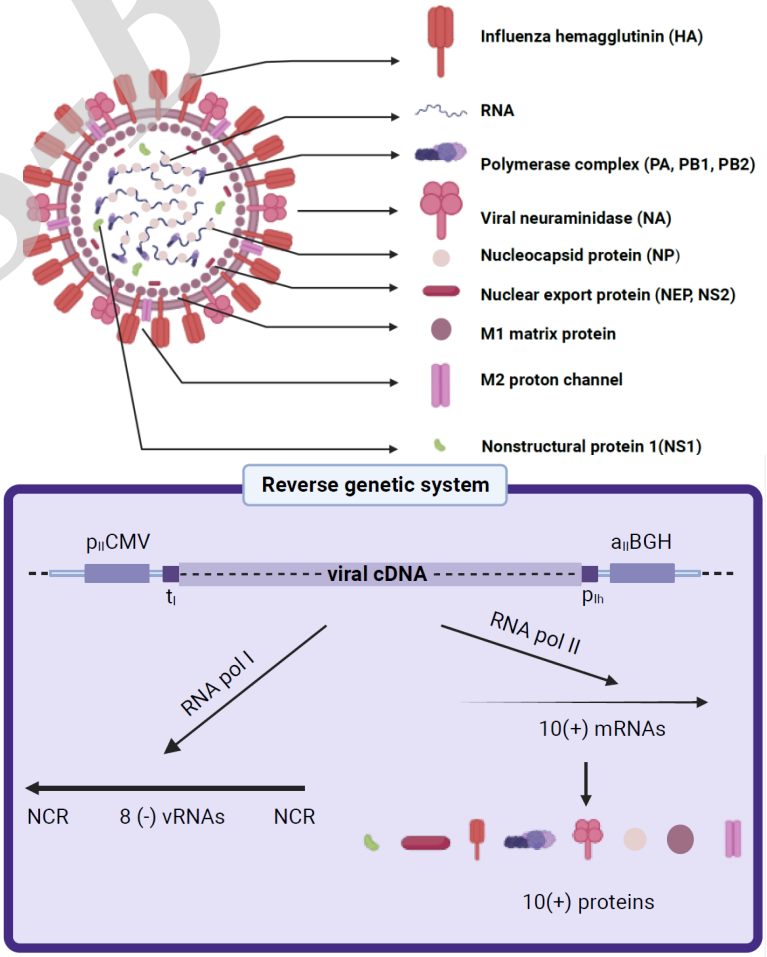
New characteristics of cancer immunotherapy: trends in viral tumor immunotherapy with influenza virus-based approaches

Key words: **Oncolytic virus, Influenza A virus, Antitumor, Reverse genetic technology, Vaccine, Viral immunotherapy**

Research Summary

This review mainly focused on the use of influenza virus in cancer immunotherapy, and provide insights essential for refining influenza A virus-based viral tumor immunotherapies in the following aspects:

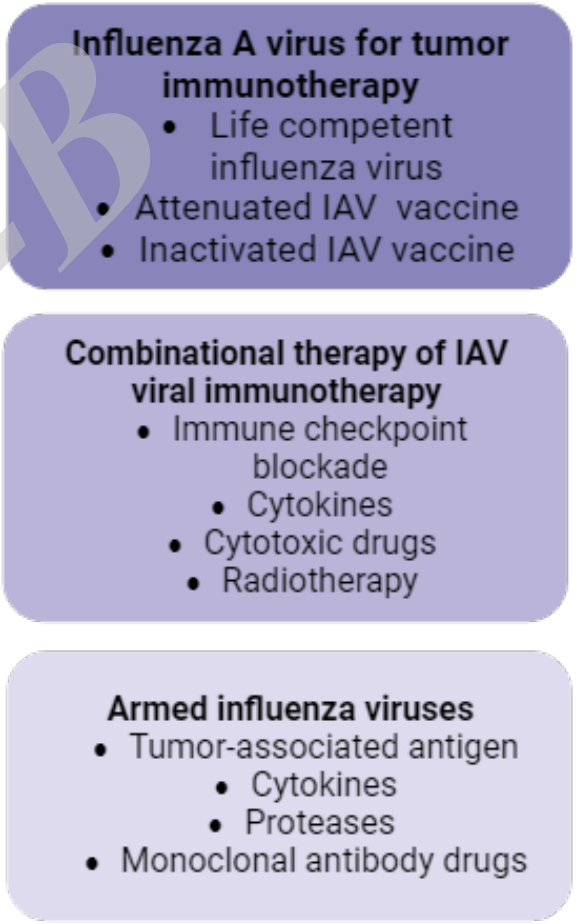
- **Expression of proteases and increased spread in the tumor**
- **Expression of cytokines**
- **Expression of tumor-associated antigens (TAA) and immune responses initiation**
- **Expression of ICIs drugs**



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Innovation points

- **Introduction** of the various forms of influenza viruses and their applications in cancer immunotherapy, with a focus on their advantages and challenges.
- **Summary** of the most updated research progress about methods and effects of engineering flu viruses through genetic Modification, with a focus on their advantages and challenges.
- **Insights** for optimizing viral tumor immunotherapy based on influenza A virus.



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