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Newcastle disease virus suppresses antigen presentation via inhibiting IL-12 expression in dendritic cells

Key words: **Newcastle disease virus, Dendritic cells, IL-12, T cells, Immunosuppression**

Research Summary

This research mainly focused on the key inhibitory factors in manipulating the nature of DCs as well as interaction of NDV infected DCs and T cells in the following aspects:

- **Regulation of IL-12 during infection**
- **Activation of p38 MAPK signaling pathway**
- **Interaction of DCs and T cells during infection**
- **Transmission of NDV from DCs to T cells**

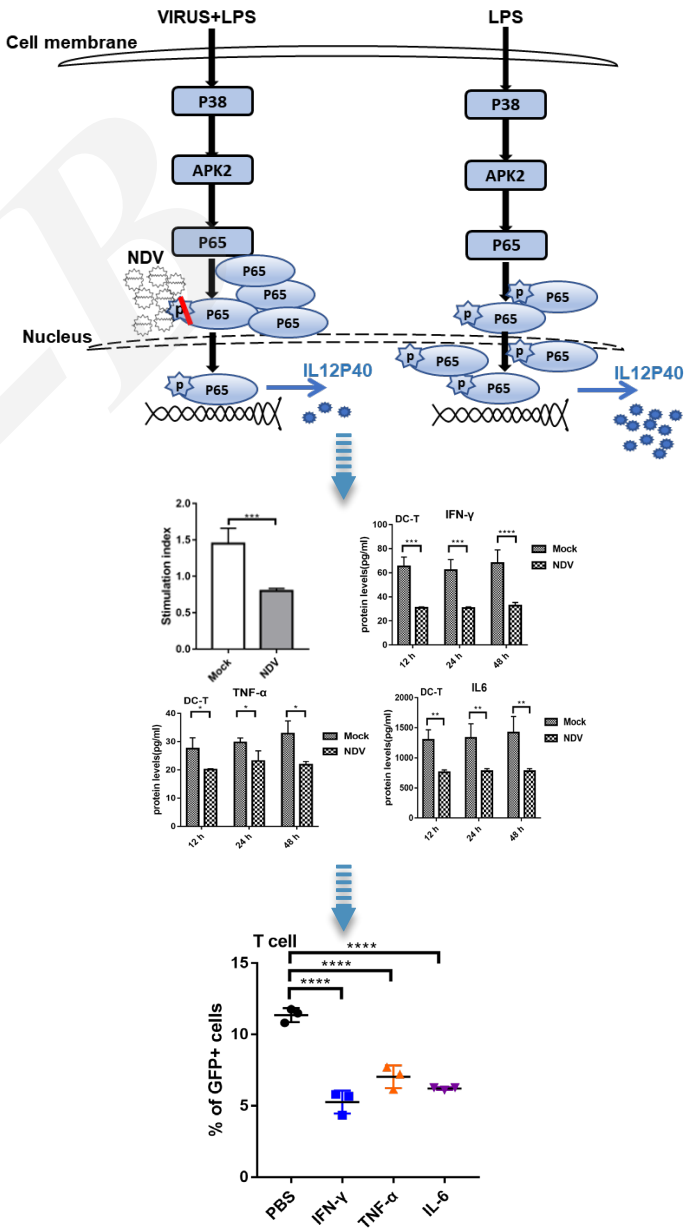
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Innovation points

- **NDV specifically targeted the phosphorylation and nuclear translocation of p38 and p65 to inhibit IL-12p40 expression.**

- **The NDV-specific suppression of IL-12p70 significantly inhibited the proliferation and downstream IFN-γ, TNF-α and IL-6 produced by T cells.**

- **NDV suppressed the expression of IL-12p70 and downstream cytokines to replicate more effectively.**



Innovation points

A figure was generated to summarize the immunosuppression and transmission of NDV from DCs to T cells.

