### **Accepted Manuscript**

The clinically approved MEK inhibitor Trametinib efficiently blocks influenza A virus propagation and cytokine expression

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#### ACCEPTED MANUSCRIPT

# The clinically approved MEK inhibitor Trametinib efficiently blocks influenza A virus propagation and cytokine expression

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#### **Highlights**

- Repurposing of MEK inhibitor Trametinib against influenza A viruses
- Broad antiviral activity in vitro
- Mode of action via nuclear retention of progeny viral ribonucleoproteins
- Simultaneous effect on cytokine expression
- Trametinib exhibits antiviral activity *in vivo* in a mouse model improving health status and survival

#### **Keywords:**

Influenza A virus, anti-influenza agent, MEK inhibitor, Trametinib (GSK-1120212), viral replication, cytokine expression

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