



Antiviral Activity of *Nepeta cataria* Extract on Field Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) Strain

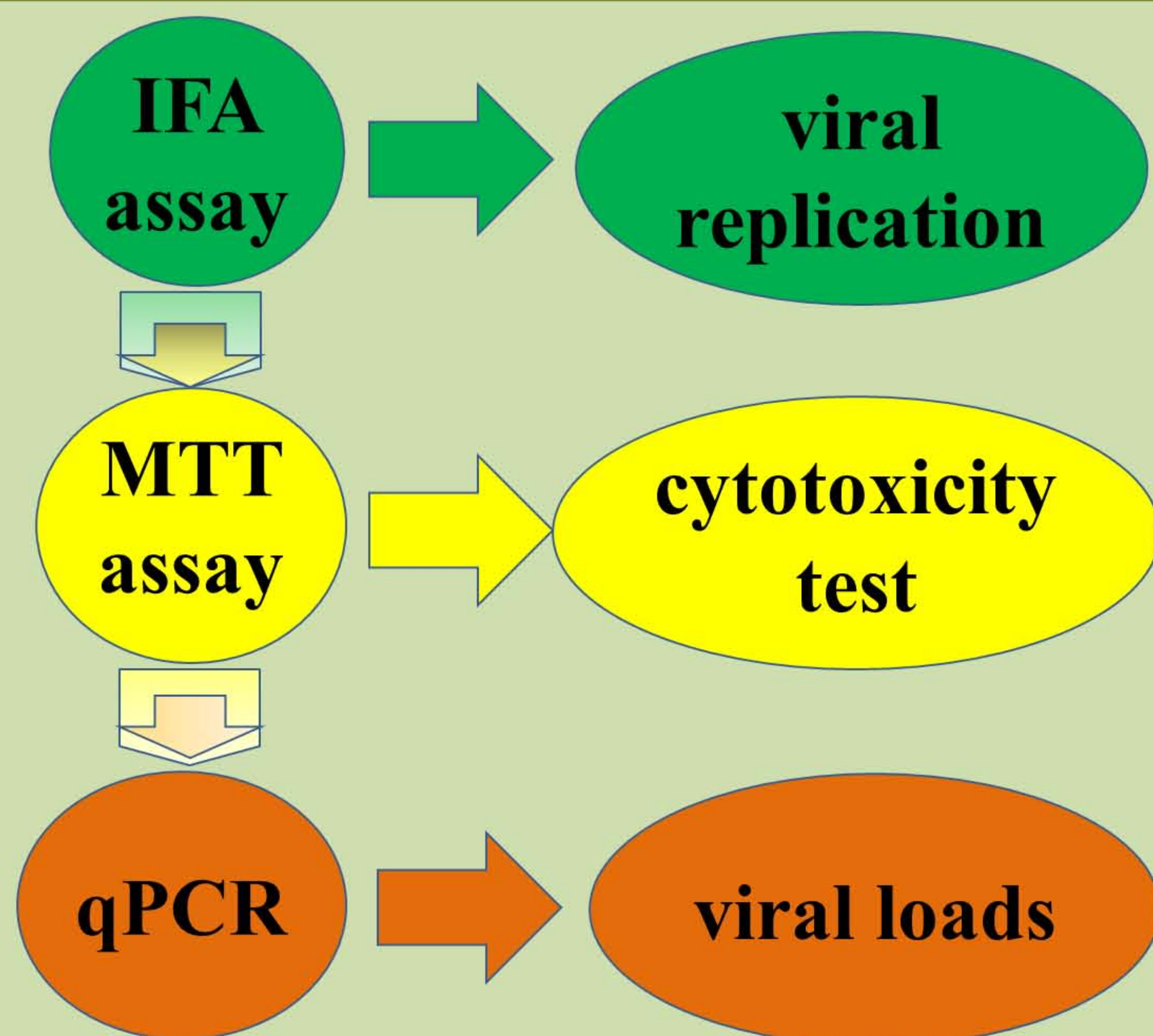
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Introduction

- ❑ PRRS is characterized by reproductive failure of sows and respiratory problems of nursery and growing pigs.
- ❑ PRRS virus have been reported to modulate the immune response of host.
- ❑ Present management strategies: focus on using vaccination but are not sufficient to eradicate the virus and provide complete immunity.
- ❑ Previous studies have discovered a few natural compounds have antiviral activities on PRRSV.
- ❑ *N. cataria* is sedative, soporific and also is used to relieve GI tract and respiratory disorders.

Materials and methods



Results

- ❑ Cytotoxicity test were observed the MNTC at 2⁻³ dilution.
- ❑ The relative value (%) of *N. cataria* extract could to be their inhibiting of highest significantly potential anti-PRRSV activity of both field 763-strain and MD001-strain at MNTC ($P \leq 0.01$) (Fig.1).

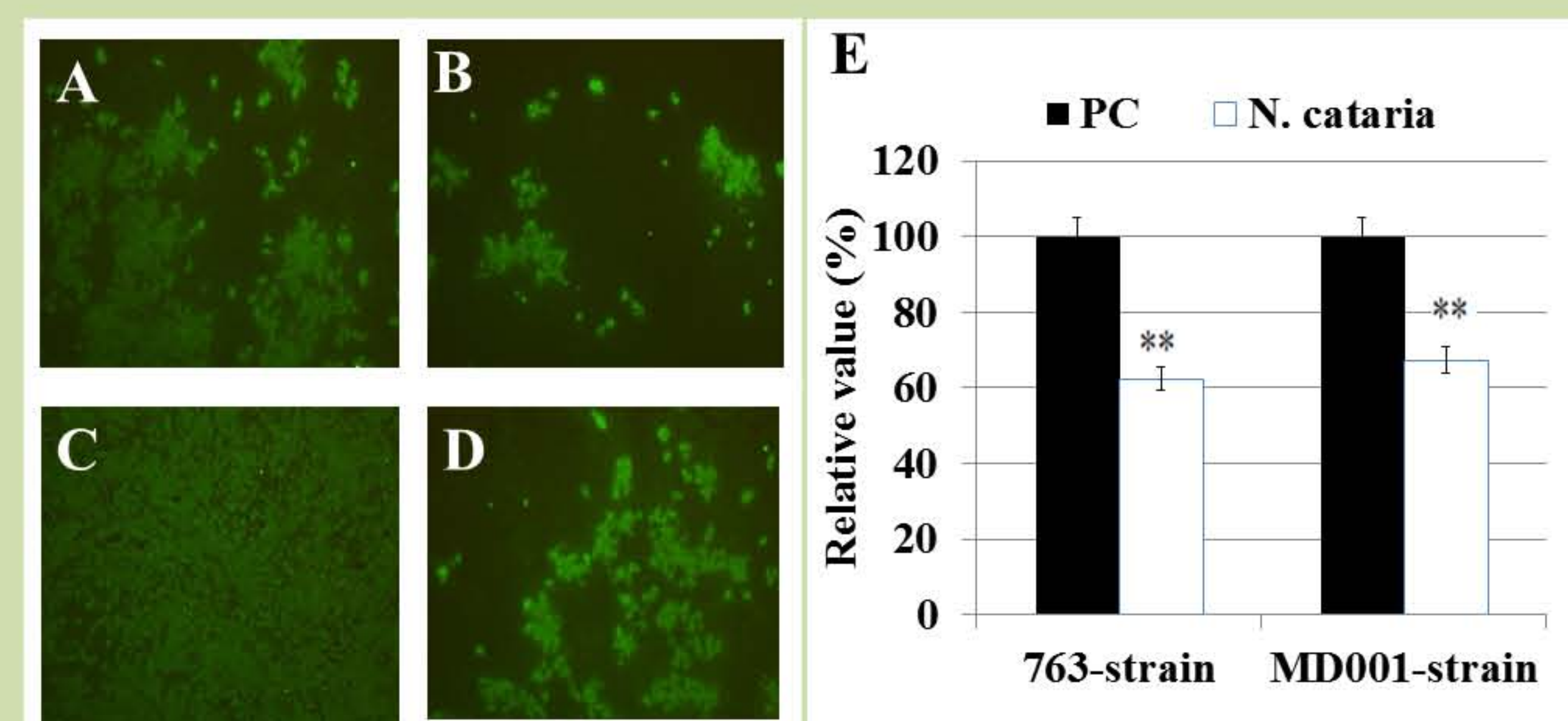


Fig.1. *N. cataria* extract on viral replication, viral loads and relative value (%); A: 763-strain, B: MD001-strain, C: 763-strain with positive control, D: MD001-strain with positive control, E: qPCR method detected viral loads and antiviral activity assay was explained by the relative value (%)

Discussion and conclusions

- ❑ This study indicates that *N. cataria* extract potentially inactivates field PRRSV strain and inhibits replication of field PRRSV strain *in vitro*.
- ❑ *N. cataria* extract may be useful for future application of medicinal herb to PRRSV control and prevention in the pig farms.