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Call for interested industrial partners to work in collaboration with ICAR-NRCE for developing Coronavirus vaccine

- 1. Theme of Collaborative project: Development of Coronavirus vaccine**
- 2. Name of the Institute: ICAR-National Research on Centre on Equines (NRCE)**
- 3. Ownership of the know-how/technology: Indian Council of Agricultural Research (ICAR)**

Section 1: Contact Information

4. Contact details:

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Section 2: Technical Description

5. Details of know-how:

The ongoing pandemic of a new coronavirus diseases 2019 (COVID-19) has become a health emergency of international concern. The etiological agent is a novel coronavirus, called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). SARS-CoV-2 has been shown to infect cat, dog, lions and minks. Mortality due to SARS-CoV-2 infection has also been reported in minks and lions. Whereas extensive research efforts have been made for human vaccine against COVID-19, very less attention has been paid to develop COVID-19 vaccines for animals.

Our laboratory has isolated SARS-CoV-2 from nasopharyngeal swabs from COVID-19 positive human patients and has been deposited to NCVTC repository with an Accession Number of VTCCAVA294 (SARS-CoV-2/India/2020/Hisar/4907). The virus has been passaged 70 times in Vero cells and its genome has been completely sequenced at passage (P) levels- P0, P10, P30, P50 and P70. Virus is growing at a titer of $>10^7$ PFU/ml. Recently, we also isolated SARS-CoV-2 from the second wave of COVID-19 (SARS-CoV-2/India/2021/Hisar/177405). In order to protect the animals from SARS-CoV-2 infection, development of vaccine is need of hour. We believe our SARS-CoV-2 isolate(s) have been sufficiently characterized and may be exploited to develop inactivated vaccine for immunoprophylaxis against SARS-CoV-2 infection in animals/humans.

