hDPP4) for MERS-CoV infection (221). The

CRISPR-Cas9 gene-editing tool has been used for

inserting genomic alterations in mice, making them

susceptible to MERS-CoV infection (222). Efforts

are under way to recognize suitable animal models

for SARS-CoV2/COVID-19, identify the receptor

affinity of this virus, study pathology in experimental

animal models, and explore virus-specific immune

responses and protection studies, which together

would increase the pace of efforts being made for

developing potent vaccines and drugs to counter this

emerging virus. Cell lines, such as monkey epithelial

cell lines (LLC-MK2 and Vero-B4), goat lung cells,

alpaca kidney cells, dromedary umbilical cord cells,

and advanced ex \_ vivo \_ three-dimensional

tracheobronchial tissue, have been explored to study

human CoVs (MERS-CoV) (223, 224). Vero and

Huh-7 cells (human liver cancer cells) have been

used for isolating SARS-CoV-2 (194).

Recently, an experimental study with rhesus

monkeys as animal models revealed the absence of

any viral loads in nasopharyngeal and anal swabs,

and no viral replication was recorded in the primary

tissues at a time interval of 5 days post-reinfection in

reexposed monkeys (274). The subsequent

virological, radiological, and \_ pathological