

different kinds of clinical manifestations, varying from enteritis in cows and pigs, upper respiratory disease in chickens, and fatal respiratory infections in humans (30). Among the CoV genera, Alphacoronavirus and Betacoronavirus infect mammals, while Gammacoronavirus and Deltacoronavirus mainly infect birds, fishes, and, sometimes, mammals (27, 29, 106). Several novel coronaviruses that come under the genus Deltacoronavirus have been discovered in the past from birds, like Wigeon coronavirus HKU20, Bulbul coronavirus HKU11, Munia coronavirus HKU13, white-eye coronavirus HKU16, night-heron coronavirus HKU19, and common moorhen coronavirus HKU21, as well as from pigs (porcine coronavirus HKU15) (6, 29). Transmissible gastroenteritis virus (TGEV), porcine epidemic diarrhea virus (PEDV), and _ porcine hemagglutinating encephalomyelitis virus (PHEV) are some of the coronaviruses of swine. Among them, TGEV and PEDV are responsible for causing severe gastroenteritis in young piglets with noteworthy morbidity and mortality. Infection with PHEV also causes enteric infection but can cause encephalitis due to its ability to infect the nervous