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Besvarelse vedr.

‣ Er der videnskabeligt grundlag for ikke at ligestille ildere med mink i forhold til COVID-19

Bestilling

‣Der ønskes et kort notat, om DK-VET er bekendt med forskelle mellem ildere og minks modtagelighed over for Sars-COV-2, der kan begrunde, om ildere bør omfattes af regeringens beslutning om aflivning af alle besætninger med mink i Danmark. Det tænkes, at der følges op med prøveudtagning i besætningen.

Svar

‣

Ilderen (*Mustela putorius*) er et dyr i mårfamilien inden for rovdyrene. Fritten (*Mustela putorius furo*, også kaldet tamilder) er den domesticerede form af en ilder og er en underart af den vilde ilder.
Der foreligger udelukkende videnskabelige undersøgelser vedrørende fritter og på grund af det nære slægtskab mellem ildere og fritter formodes disse undersøgelser også i høj grad at gælde for ildere. I nedenstående er der derfor foretaget en sammenligning mellem fritter (ferrets) og mink. På engelsk skelnes i øvrigt ikke sprogligt mellem fritter og ildere da begge kaldes ferrets.

Under experimental conditions, when healthy ferrets were inoculated (using 10^5 TCID50 in Germany; 6 x 10^5 TCID in the Netherlands and $10^{5.5}$ TCID in S. Korea) with the human SARS-CoV-2 then it has been shown that the virus replicates within them and that they shed virus into the environment. Transmission from infected ferrets to other ferrets in direct contact, and also spatially separated, can occur, due to transmission through the air (e.g. as small droplets) (Shi et al., 2020; Richard et al., 2020; Kim et al., 2020; Schlottau et al., 2020).

For these experimental studies, Kim et al., and Richard et al., both indicate they used *Mustela putorius furo* while Schlottau et al., indicate the use of *Mustela putorius* (from the FLI colony).

Infected ferrets and mink seroconvert against SARS-CoV-2.

Ferrets do not exhibit severe disease, but this is also true for a high proportion of the infected mink as well.

The mink-adapted SARS-CoV-2 is known to spread rapidly among mink (Hammer et al, submitted) but it is not yet known how ferrets react to the mink-adapted variant viruses.

It seems, based on the rapid spread of SARS-CoV-2 in a farmed-mink population, that mink might be more susceptible to infection than laboratory-reared ferrets that are housed inside in a protected environment. However, the viruses that have been used for experiments with ferrets are different from the viruses circulating in the mink. It is, therefore, difficult to know how the apparent differences in susceptibility between mink and ferrets reflect differences in environment (large numbers of mink may produce a high infection pressure compared to a small group of ferrets), the actual virus responsible or differences between the host animals.

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