

**To:** [REDACTED] [REDACTED]@rivm.nl; [REDACTED] [REDACTED]@rivm.nl  
**From:** [REDACTED]  
**Sent:** Mon 1/18/2021 10:27:07 AM  
**Subject:** RE: Doorst: ProMED Digest, Vol 103, Issue 40  
**Received:** Mon 1/18/2021 10:27:07 AM

Dat zou je zo in eerste instantie niet verwachten, maar hangt blijkbaar samen met de structuur van de ACE-2 receptor. De contacten Herten-humaan zijn vrij beperkt, behalve bij de jacht, maar dan zijn ze dood en is de kans voor transmissie van mens naar dier tamelijk klein.

De kans dat onze natuurlijke hertenpopulatie aangestoken wordt lijkt me niet zo groot.

Nou ja, iedereen vaccineren maar blijft de beste oplossing 💎

Dank en groeten,

[REDACTED]

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**From:** [REDACTED] [REDACTED]@rivm.nl  
**Sent:** maandag 18 januari 2021 11:21  
**To:** [REDACTED] [REDACTED]@rivm.nl; [REDACTED] [REDACTED]@rivm.nl  
**Subject:** Doorst: ProMED Digest, Vol 103, Issue 40

Herten!

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**Van:** [REDACTED]@promedmail.org <[REDACTED]@promedmail.org>  
**Datum:** 17 januari 2021 om 12:58:12 CET  
**Aan:** [REDACTED]@promedmail.org <[REDACTED]@promedmail.org>  
**Onderwerp:** ProMED Digest, Vol 103, Issue 40

Today's Topics:

1. PRO/AH/EDR> COVID-19 update (20): animal, deer, experimental infection ([REDACTED]@promedmail.org)

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 Message: 1  
 Date: Sat, 16 Jan 2021 22:57:50 +0000  
 From: [REDACTED]@promedmail.org  
 Subject: PRO/AH/EDR> COVID-19 update (20): animal, deer, experimental infection  
 To: [REDACTED]@promedmail.org, [REDACTED]@promedmail.org, [REDACTED]@promedmail.org  
 Message-ID: <[REDACTED]@email.amazonses.com>

Content-Type: text/plain; charset=UTF-8

CORONAVIRUS DISEASE 2019 UPDATE (20): ANIMAL, DEER, EXPERIMENTAL INFECTION

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A ProMED-mail post  
 <<http://www.promedmail.org>>  
 ProMED-mail is a program of the  
 International Society for Infectious Diseases  
 <<http://www.isid.org>>

Date: Thu 14 Jan 2021  
 Source: bioRxiv [edited]  
 <<https://www.biorxiv.org/content/10.1101/2021.01.13.426628v1.full.pdf>>

Susceptibility of white-tailed deer (*Odocoileus virginianus*) to SARS-CoV-2

The origin of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus causing the global coronavirus disease 19 (COVID-19) pandemic, remains a mystery. Current evidence suggests a likely spillover into humans from an animal reservoir. Understanding the host range and identifying animal species that are susceptible to SARS-CoV-2 infection may help to elucidate the origin of the virus and the mechanisms underlying cross-species transmission to humans. Here we demonstrated that white-tailed deer (*Odocoileus virginianus*), an animal species in which the angiotensin-converting enzyme 2 (ACE2) -- the SARS-CoV-2 receptor -- shares a high degree of similarity to humans, are highly susceptible to infection. Intranasal inoculation of deer fawns with SARS-CoV-2 resulted in established subclinical viral infection and shedding of infectious virus in nasal secretions. Notably, infected animals transmitted the virus to non-inoculated contact deer. Viral RNA was detected in multiple tissues 21 days postinoculation (pi). All inoculated and indirect contact animals seroconverted and developed neutralizing antibodies as early as day 7 pi. The work provides important insights into the animal host range of SARS-CoV-2 and identifies white-tailed deer as a susceptible wild animal species to the virus.

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Communicated by:  
Herve Bercovier  
Prof (Emeritus) of Microbiology  
The Faculty of Medicine  
Hebrew University of Jerusalem, Israel  
<[hbercov@cc.huji.ac.il](mailto:hbercov@cc.huji.ac.il)>

[The full pre-print can be accessed at  
<<https://www.biorxiv.org/content/10.1101/2021.01.13.426628v1.full.pdf>>.

This experiment adds a new mammal family (Cervidae) to those known to be compatible for SARS-CoV-2 infection. White-tailed deer and other cervids are farmed worldwide, and thus they are at risk of exposure to infected people. The fact that white-tailed deer can infect other conspecifics, as also can cats and minks, raises concern and urges surveillance and biosafety efforts in deer farms. - Mod.PMB]

[See Also:

COVID-19 update (13): animal, USA, zoo, gorilla

<http://promedmail.org/post/20210112.8095510>

COVID-19 update (07): animal, China, origin, WHO experts mission

<http://promedmail.org/post/20210106.8079009>

2020

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COVID-19 update (557): animal, Slovenia (SA) ferret, OIE

<http://promedmail.org/post/20201226.8048809>

COVID-19 update (552): USA, animal, cat, dog, snow leopard, OIE

<http://promedmail.org/post/20201223.8042405>

COVID-19 update (551): animal, pig, research, experimental infection

<http://promedmail.org/post/20201223.8041877>

COVID-19 update (536): animal, USA (UT) wild mink, 1st case

<http://promedmail.org/post/20201213.8015608>

COVID-19 update (525): Spain, animal, zoo, lion, human

<http://promedmail.org/post/20201208.8002466>

COVID-19 update (469): USA (TN) zoo, tiger

<http://promedmail.org/post/20201104.7915683>

COVID-19 update (356): South Africa (GT) animal, puma, zoo, OIE

<http://promedmail.org/post/20200813.7673666>

COVID-19 update (143): USA (NY) animal, zoo, tiger, lion, tests  
<http://promedmail.org/post/20200430.7284183>

COVID-19 update (141): India, animal, wild tiger, susp, clarification, RFI  
<http://promedmail.org/post/20200430.7281768>

COVID-19 update (138): India, animal, wild tiger, fatal  
<http://promedmail.org/post/20200428.7275765>

COVID-19 update (135): Netherlands (NB) animal, farmed mink  
<http://promedmail.org/post/20200427.7272289>

COVID-19 update (130): USA (NY) zoo, tiger, lion, new cases  
<http://promedmail.org/post/20200425.7266556>

COVID-19 update (85): USA (NY) tiger, OIE  
<http://promedmail.org/post/20200406.7191480>

COVID-19 update (84): USA, tigers  
<http://promedmail.org/post/20200406.7191352>

COVID-19 update (76): China (HU) animal, cat, owned, stray, seropositive  
<http://promedmail.org/post/20200403.7179946>

COVID-19 update (75): China (Hong Kong) cat, OIE  
<http://promedmail.org/post/20200403.7179945>

COVID-19 update (70): China (Hong Kong) cat, pets & stock  
<http://promedmail.org/post/20200402.7173286>

COVID-19 update (58): Belgium, cat, clinical case, RFI  
<http://promedmail.org/post/20200327.7151215>

COVID-19 update (57): global, re-using PPE, DR Congo, more countries, WHO  
<http://promedmail.org/post/20200327.7149046>

COVID-19 update (56): China (Hong Kong) animal, dog, final serology positive  
<http://promedmail.org/post/20200326.7146438>

COVID-19 update (45): China (Hong Kong) animal, dog, 2nd case PCR positive  
<http://promedmail.org/post/20200319.7112693>

COVID-19 update (37): China (Hong Kong) animal, dog, prelim. serology negative  
<http://promedmail.org/post/20200312.7081842>

COVID-19 update (30): China (Hong Kong) dog, susp, serology pending  
<http://promedmail.org/post/20200306.7057595>

COVID-19 update (25): China (Hong Kong) dog, susp, OIE  
<http://promedmail.org/post/20200302.7040373>

COVID-19 update (22): companion animals, dog susp, RFI  
<http://promedmail.org/post/20200229.7036661>

COVID-19 update (17): China, animal reservoir, wildlife trade & consumption  
<http://promedmail.org/post/20200225.7024245>

COVID-19 update (11): animal reservoir, intermediate hosts, pangolin susp  
<http://promedmail.org/post/20200220.7009213>

COVID-19 update (08): companion animals, RFI  
<http://promedmail.org/post/20200218.7002276>

COVID-19 update (06): animal reservoir, intermediate hosts  
<http://promedmail.org/post/20200217.6997782>

Novel coronavirus (42): China, global, COVID-19, SARS-CoV-2, WHO  
<http://promedmail.org/post/20200211.6979942>

Novel coronavirus (40): animal reservoir, pangolin poss intermediate host, RFI  
<http://promedmail.org/post/20200210.6972104>

Novel coronavirus (28): China (HU) animal reservoir  
<http://promedmail.org/post/20200201.6943858>

Novel coronavirus (22): reservoir suggested, bats  
<http://promedmail.org/post/20200129.6930718>

Novel coronavirus (20): China, wildlife trade ban  
<http://promedmail.org/post/20200127.6922060>

Novel coronavirus (18): China (HU) animal reservoir  
<http://promedmail.org/post/20200125.6915411>

Novel coronavirus (15): China (HU) wild animal sources  
<http://promedmail.org/post/20200123.6909913>

Novel coronavirus (03): China (HU) animal reservoir suggested, RFI  
<http://promedmail.org/post/20200114.6887480>

Novel coronavirus (01): China (HU) WHO, phylogenetic tree  
<http://promedmail.org/post/20200112.6885385>

Undiagnosed pneumonia - China (HU) (07): official confirmation of novel coronavirus  
<http://promedmail.org/post/20200108.6878869>

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End of ProMED Digest, Vol 103, Issue 40  
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