

buiten reikwijdte

[01-10-2020 10:49:42] 10.2.e : Yes, we have to many now, Government is again It has spread to an island in the Northern part. And it is slowly also moving further South.

buiten reikwijdte

It would be great if we also could talk regionalisation, next time we set up a meeting about mink.

[01-10-2020 22:36:26] 10.2.e : Culling is now strategy in DK, al infected farms and surrounding farms as well. buiten reikwijdte. Announced at pressmeeting today

[02-10-2020 07:06:10] 10.2.e : 10.2.e buiten reikwijdte

[02-10-2020 07:24:28] 10.2.e : buiten reikwijdte

[05-10-2020 09:37:01] 10.2.e : 10.2.e buiten reikwijdte

[05-10-2020 22:46:22] 10.2.e : Hi 10.2.e not good. Its developing to fast. Culling begins wednesday I suppose. With contaminated farms and surrounding farms we are close to 200 farms now. Right now we are discussing compensation which is difficult to land...

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[06-10-2020 08:12:53] 10.2.e : 11.1

We still have the hypothesis ik mind that it is there longer on low scale in the

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farms and that there is some sort of trigger that makes it spread in the farms on large scale

[06-10-2020 08:13:22] 10.2.e : If you need any compensation info or other info from our side please let me know.

[06-10-2020 08:13:51] 10.2.e : buiten reikwijdte

[08-10-2020 07:41:37] 10.2.e

I see on the website that you have a second region infected, buiten reikwijdte

We have big discussions about the compensation as well here however we do not have the problem of non infected farms since we do not pre-emptively cull. If you need any info from our side please let me know.

Here the spread continues as well, we have 64 today.

buiten reikwijdte

10.2.e

[08-10-2020 16:52:59] 10.2.e . It has spread to south of the Limfjord. The culling has started today. Only two farms Because we had to get access with help from police. It is 150 farms we need culling as quick as possible. I am informing government tomorrow morning, and after that hosting big information meetings with farmers on Skype.

11.1 en 10.2.a

buiten reikwijdte

[08-10-2020 16:53:58] 10.2.e buiten reikwijdte

[08-10-2020 16:57:54] 10.2.e : 11.1 en 10.2.a

[08-10-2020 16:58:39] 10.2.e buiten reikwijdte

[08-10-2020 16:59:45] 10.2.e : buiten reikwijdte

[08-10-2020 17:00:56] 10.2.e : buiten reikwijdte

[08-10-2020 17:19:16] 10.2.e :

[08-10-2020 17:23:27] 10.2.e : buiten reikwijdte

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[08-10-2020 17:26:44] 10.2.e : buiten reikwijdte

[08-10-2020 17:28:21] 10.2.e : buiten reikwijdte

[08-10-2020 17:29:10] 10.2.e : buiten reikwijdte

[08-10-2020 17:29:22] 10.2.e : buiten reikwijdte

[08-10-2020 17:29:46] 10.2.e : buiten reikwijdte

[08-10-2020 17:32:31] 10.2.e : buiten reikwijdte

[08-10-2020 17:34:33] 10.2.e : buiten reikwijdte

[10-10-2020 08:18:53] 10.2.e :

<https://www.cbsnews.com/news/thousands-mink-dead-coronavirus-covid-19-disease-outbreak-utah-wisconsin-fur-farms/>

[10-10-2020 09:55:05] 10.2.e : buiten reikwijdte

[10-10-2020 09:56:32] 10.2.e : buiten reikwijdte

[10-10-2020 11:21:01] 10.2.e : Culling continues. And a lot of political pressure on minister to compensate more from one side of parliament and pressure to compensate less from the other side. 😞

Because of that minkowners demonstrate, block the doors, making it go slowly... But we continue. buiten reikwijdte 10.2.e

[10-10-2020 11:25:48] 10.2.e : Maybe good to know, we compensate less than you do as far as we can see from the public info.

[10-10-2020 11:26:47] 10.2.e : buiten reikwijdte

[14-10-2020 15:53:49] 10.2.e , buiten reikwijdte

We have

2 new suspicions, 65 et 66

[15-10-2020 07:07:00] 10.2.e . 64 infected farms in Netherlands... I Hope that doesn't mean, that we reach 450 in DK right now we have 89 infected.

But its tough because of resistance from farmers. Culling is therefore Going slowly. Its Also a big setup for each infected farm due to the protective gear. buiten reikwijdte

[15-10-2020 07:11:42] 10.2.e : buiten reikwijdte

How long is the culling

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going to take? buiten reikwijdte

[15-10-2020 23:04:04] 10.2.e : buiten reikwijdte

We had the first positive results in flies tested this week.

[16-10-2020 08:09:06] 10.2.e Nope we did not test that, I am not surprised when you find it in dust that you also find it in flies. I would be surprised when it replicates in flies. Do you know the CT values?

We are going to test birds and other wildlife and do some work with night cameras etc.

buiten reikwijdte

[16-10-2020 08:16:38] 10.2.e : buiten reikwijdte

[18-10-2020 16:21:15] 10.2.e :

buiten reikwijdte

[23-10-2020 08:30:58] 10.2.e : buiten reikwijdte 10.2.e

buiten reikwijdte

[23-10-2020 08:31:25] 10.2.e : buiten reikwijdte

[04-11-2020 06:38:57] 10.2.e . I need to cancel our participation in the meeting today. This is confidential: Today primeminister will announce stop for minkproduction in DK. All farms will be culled. The defence ministry Will take over. 11.1????

So far and since 8 oct 140 farms are culled and 70 is in process. We have done that working with the farmers. But it needs to move faster. Reason is a preliminary study in virus from one person but the Health authorities has decided to go with it. I Will try an get in contact with you later

[04-11-2020 06:41:54] 10.2.e

Have been thinking of you a lot lately.... what a difficult time for you. I understand completely, do what you need to do and we will get in touch later. Did you find something important in this person? We have at least 66 people infected related to farms, not sure whether mink-human or human-human.

[04-11-2020 06:43:17] 10.2.e : buiten reikwijdte

[04-11-2020 06:45:10] 10.2.e buiten reikwijdte

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[04-11-2020 06:45:55] 10.2.e buiten reikwijdte

[04-11-2020 06:47:41] 10.2.e : buiten reikwijdte

[04-11-2020 06:47:56] 10.2.e : buiten reikwijdte

[04-11-2020 06:48:25] 10.2.e : buiten reikwijdte

[04-11-2020 06:48:57] 10.2.e : buiten reikwijdte

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[04-11-2020 06:50:47] 10.2.e : buiten reikwijdte

[04-11-2020 09:19:40] 10.2.e : buiten reikwijdte ou this morning our
overview of what we have looked at for methods of culling

[04-11-2020 22:01:05] 10.2.e : Hi...buiten reikwijdte

[05-11-2020 12:40:20] 10.2.e : buiten reikwijdte

[05-11-2020 12:43:19] 10.2.e : buiten reikwijdte

[05-11-2020 13:21:52] 10.2.e : buiten reikwijdte

[06-11-2020 06:53:31] 10.2.e buiten reikwijdte

[09-11-2020 16:05:17] 10.2.e
buiten reikwijdte

[09-11-2020 21:32:33] 10.2.e . buiten reikwijdte - have
you banned export or intracommunity trade of living minks? Best regards 10.2.e

[09-11-2020 21:36:49] 10.2.e : Well yes, by having a transport ban
we did yes only we have not mentioned it as a export ban
buiten reikwijdte

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buiten reikwijdte



Van: 10.2.e
Aan: 10.2.e
Onderwerp: DK minkvariant virus
Datum: woensdag 4 november 2020 06:52:42
Bijlagen: [Assessing cross-neutralization activity of spike mutants_afo.docx](#)
[ATT00001.htm](#)

2a

Assessing cross-neutralization activity for SARS-CoV-2 spike mutants

SSI 02. November 2020, 10.2.e, senior researcher

SSI has so far identified seven unique mink mutations/changes in the spike protein the sars-cov-2 variants in mink and infected people with contact to the farms. We have tested the first variant from farm-1 and here we have tested a variant with four simultaneous changes in the spike. This variant is dominating farm-6, 9, 10, 14, 18 (CHCNR 99768, 10967, 92288, 91966, 97712) and in the present experiments we isolated this same mink variant virus from a human patient and used it to evaluate if this virus variant was sensitive or not to neutralizing antibodies (antisera) from a collection of convalescent individuals.

Virus culture

A mink and human clinical sample containing the SARS-CoV-2 virus with the spike mutations of interest is identified. The virus is grown on mammalian cells, a monkey kidney cell line named VeroE6, from the clinical sample in two subsequent rounds. Prior to use, nucleotide sequencing of the isolated virus is used to confirm that the cell culture process did not introduce additional mutations that were not present in the original clinical sample. To date, all viruses evaluated for cross-neutralization of antisera were identical in the spike protein compared to that found in the clinical sample.

Neutralization assay in Biosafety-3 laboratory

To determine if a mutant virus has reduced sensitivity to existing neutralizing antibodies, a predetermined amount of the mutant virus is mixed with serially diluted sera from patients that were infected with SARS-CoV-2 early in the Danish epidemic. The same sera is mixed with the same amount of virus from a strain that does not have the spike mutations. The virus and sera are incubated for 1 hour to allow the antibodies in the sera to bind to the virus. The virus/antibody mix is added to VeroE6 cells and incubated for 24 hours. Those antibodies that neutralize the virus will block its ability to infect cells and thus lead to a lower amount of virus present in the cells. After 24 hours, the amount of virus in the cells are measured by fixing the cells to the cell culture plate. This fixation process exposes the virus proteins produced during the infection of the cells. One of these proteins is the SARS-CoV-2 nucleocapsid protein. In a standard ELISA targeting the nucleocapsid protein, the amount of virus is determined. Using appropriate controls for each virus evaluated, a 50% cut-off value is calculated. The serum dilution at the 50% cut-off value is reported as the neutralization titer.

Results

Convalescent sera from 9 people (10 serum samples were tested, but one was inconclusive, so only 9 are reported) previously infected with SARS-CoV-2 early in the Danish epidemic were used to evaluate cross-neutralization activity against a mutant virus. Each serum sample was tested in duplicate with the mutant virus and the reference virus (without spike mutations).

	Serum sample – Neutralisation Titer								
	1	2	3	4	5	6	7	8	9
Reference virus	39	68	54	67	186	>1280	846	186	291
Mutant virus	28	5	9	30	67	>1280	606	54	177
% Difference	-28%	-93%	-83%	-55%	-64%	0%	-28%	-71%	-39%

The mutant virus resulted in reduced neutralization activity for 8 out of 9 sera tested when compared to a virus that lacks the spike mutations. The effect varied between the sera and ranged from a reduction of 25% to as high as 93% neutralization activity.

In conclusion, this indicate that mink virus variants with four of the seven identified mink-mutations/changes in the spike protein show less sensitivity (resistance) for neutralizing antibodies from persons with previous covid-19 infection. It is important to note that these results are preliminary and are in the process of being confirmed in an independent repeat experiment, but suggest that mink-specific mutation potentially can influence virus' sensitivity to protective antibodies.