

RESEARCH MISINFO/DISINFO: AIN'T NO SUNSHINE KILL COVID-19 GONE

[Check the byline, thanks! /Rayne]

I thought this series would end after three posts but clearly the misinfo/disinfo related to research studies on COVID-19 continues.

This time Department of Homeland Security is one of the problem children.

By now you know about Trump's wrong-headed comments about light and disinfectants used in and on humans' bodies to eliminate SARS-CoV-19. You've also heard he gaslighted the public by claiming he was being sarcastic during Thursday's briefing about light and disinfectants, followed by even more dog-ate-my-homework excuses.

You may have heard speculation that bleach as a COVID-19 therapy specifically may have been the result of communications with Trump by some crackpot who sells this re-labeled chlorine dioxide product as a miracle cure-all.

What you probably haven't seen is the DHS's "study" which may also have spurred Trump's idiotic remarks about light or sunlight. Yahoo News reported about the "study" a week ago, sharing a link to the DHS document it received outlining DHS's findings.

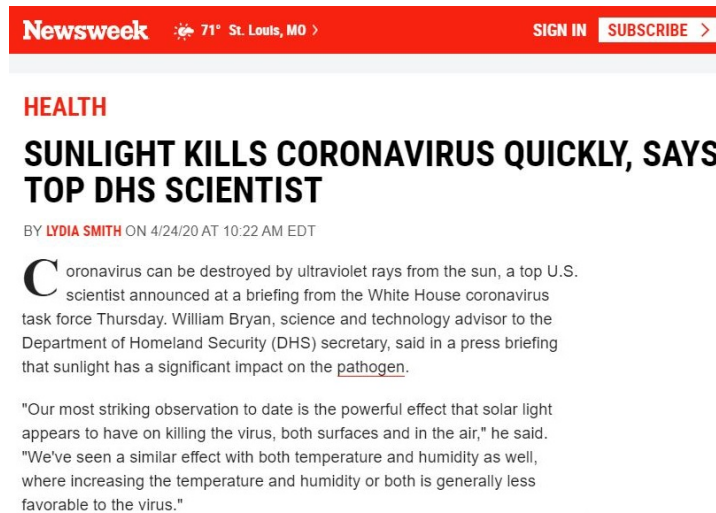
It's not a paper. It's a goddamned slide presentation of which stability of SARS-CoV-19 on surfaces was only a portion.

No peer-reviewed study has been published by DHS in any of the articles since Trump's ridiculously inappropriate comments last evening.

News outlets have been all over Trump's remarks,

which as Marcy said elicited justifiable uproar. But outlets are doing a pissy job covering the sources of Trump's practice of medicine without a license at the podium.

Newsweek offers a great example:



The screenshot shows the top of a Newsweek article. The header is red with the Newsweek logo on the left, a weather icon and '71° St. Louis, MO' in the center, and 'SIGN IN' and 'SUBSCRIBE >' on the right. Below the header, the word 'HEALTH' is written in red. The main title is 'SUNLIGHT KILLS CORONAVIRUS QUICKLY, SAYS TOP DHS SCIENTIST' in bold black text. Below the title, it says 'BY LYDIA SMITH ON 4/24/20 AT 10:22 AM EDT'. The first paragraph starts with a large 'C' and reads: 'Coronavirus can be destroyed by ultraviolet rays from the sun, a top U.S. scientist announced at a briefing from the White House coronavirus task force Thursday. William Bryan, science and technology advisor to the Department of Homeland Security (DHS) secretary, said in a press briefing that sunlight has a significant impact on the pathogen.' A quote follows: '"Our most striking observation to date is the powerful effect that solar light appears to have on killing the virus, both surfaces and in the air," he said. "We've seen a similar effect with both temperature and humidity as well, where increasing the temperature and humidity or both is generally less favorable to the virus."'

Fortunately, CNN got it right:



The screenshot shows the top of a CNN article. The title is 'Homeland Security official who detailed effect of temperature on coronavirus isn't a scientist but has a long military background' in bold black text. Below the title, there is a CNN logo and the text 'By Paul LeBlanc, CNN Updated 10:25 AM ET, Fri April 24, 2020'. The first paragraph reads: '(CNN) — The acting Department of Homeland Security official who detailed the effects of temperature on coronavirus at Thursday's White House task force briefing has extensive military experience but is not a scientist nor does he have a medical background.' The second paragraph reads: 'As the Department of Homeland Security senior official performing the duties of the under secretary for Science and Technology, Bill Bryan holds an influential perch with far-reaching authority over research, development and testing at the agency as well as for first responders across the country.' The third paragraph reads: 'He serves in an acting position, having not been confirmed by the Senate to the post.'

If DHS's science and technology advisor Bill Bryan isn't qualified to make declarative statements relying on research, who is?

Who did the research and where's their data and output?

Why did the American public have to hear what DHS learned filtered through Trump who has proven himself to be incapable of understanding science let alone demonstrate respect for it?

We need to see the work because there are other

studies which do not appear to agree with DHS's presentation.

This widely cited piece tested the viability of SARS-CoV-2 on different surfaces after exposure to aerosolized virus. The temperature of the study was comparable to a nice spring day – 21-23 degrees Celsius or 69-73 degrees Fahrenheit – with 40% relative humidity.

Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1
van Doremalen N, Bushmaker T, Morris DH, et al.
March 17, 2020
DOI: 10.1056/NEJMc2004973
<https://www.nejm.org/doi/full/10.1056/NEJMc2004973>

SARS-CoV-2 is quite stable in conditions one might find in an air-conditioned indoor setting according to this study. This much agrees with what DHS presented.

This study looked at viability of the virus over time at different increasing temperatures and exposure to ultraviolet light – like solar radiation.

Stability of SARS-CoV-2 in different environmental conditions
Alex W.H. Chin, Julie T.S. Chu, Mahen R.A. Perera, Kenrie P.Y. Hui, Hui-Ling Yen, Michael C.W. Chan, Malik Peiris, Leo L.M. Poon
<https://www.medrxiv.org/content/10.1101/2020.03.15.20036673v2.full.pdf>

Here's a table from the study addressing viability of SARS-CoV-2 at different temperatures:

Table. Stability of SARS-CoV-2 at different environmental conditions.

| Time | Virustitre (Log TCID ₅₀ /mL) | | | | | | | | | |
|---------|---|------|------|------|------|------|------|------|------|------|
| | 4°C | | 22°C | | 37°C | | 56°C | | 70°C | |
| | Mean | ±SD | Mean | ±SD | Mean | ±SD | Mean | ±SD | Mean | ±SD |
| 1 min | N.D. | N.D. | 6.51 | 0.27 | N.D. | N.D. | 6.65 | 0.11 | 5.34 | 0.17 |
| 5 mins | N.D. | N.D. | 6.7 | 0.15 | N.D. | N.D. | 4.62 | 0.44 | U | - |
| 10 mins | N.D. | N.D. | 6.63 | 0.07 | N.D. | N.D. | 3.84 | 0.32 | U | - |
| 30 mins | 6.51 | 0.27 | 6.52 | 0.28 | 6.57 | 0.17 | U | - | U | - |
| 1 hr | 6.57 | 0.32 | 6.33 | 0.21 | 6.76 | 0.05 | U | - | U | - |
| 3 hrs | 6.66 | 0.16 | 6.88 | 0.46 | 6.36 | 0.19 | U | - | U | - |
| 6 hrs | 6.67 | 0.04 | 6.54 | 0.32 | 5.99 | 0.26 | U | - | U | - |
| 12 hrs | 6.58 | 0.21 | 6.23 | 0.05 | 5.28 | 0.23 | U | - | U | - |
| 1 day | 6.72 | 0.13 | 6.26 | 0.05 | 3.23 | 0.05 | U | - | U | - |
| 2 days | 6.42 | 0.37 | 5.83 | 0.28 | U | - | U | - | U | - |
| 4 days | 6.32 | 0.27 | 4.99 | 0.18 | U | - | U | - | U | - |
| 7 days | 6.65 | 0.05 | 3.48 | 0.24 | U | - | U | - | U | - |
| 14 days | 6.04 | 0.18 | U | - | U | - | U | - | U | - |

A) Temperature*

You can see the virus is viable at 37 degrees C – that’s coincidentally 98.6F, the old average temperature for humans. The virus is stable at that temp for as long as a day. It’s not stable for long at 56C (132.8F) and not at all at 70C (158F) but then neither are humans.

C) Disinfectants*

| Disinfectant (Working concentration) | Virustitre (Log TCID ₅₀ /mL) | | |
|---|---|---------|---------|
| | 5 mins | 15 mins | 30 mins |
| Household bleach (1:49) | U | U | U |
| Household bleach (1:99) | U | U | U |
| Hand soap solution (1:49) | 3.6 [#] | U | U |
| Ethanol (70%) | U | U | U |
| Povidone-iodine (7.5%) | U | U | U |
| Chloroxynol (0.05%) | U | U | U |
| Chlorhexidine (0.05%) | U | U | U |
| Benzalkonium chloride (0.1%) | U | U | U |

Unsurprisingly, disinfectants disinfect according to the study’s results shown in the table above. Only one little burp with hand soap solution – one of three attempts showed some viability. This study looked at the differences in number of outbreaks over time in a particular region of China, as the season changed and both temperature and amount of sunlight increased.

No Association of COVID-19 transmission with temperature or UV radiation in Chinese cities
 Ye Yao, Jinhua Pan, Zhixi Liu, Xia Meng, Weidong Wang, Haidong Kan, Weibing Wang
 Published online April 8, 2020.
 European Respiratory Journal 2020,

2000517; DOI:

10.1183/13993003.00517-2020

<https://erj.ersjournals.com/content/early/2020/04/01/13993003.00517-2020>

These researchers hypothesized that COVID-19 transmission may decrease or even disappear when the temperature and UV radiation increase in the summer.

They collected the confirmed case numbers of 224 cities from China's National Health Commission, the daily mean temperature and relative humidity collected from the China Meteorological Data Sharing Service System, and daily erythemally-weighted daily dose of UV radiation data extracted from the Dutch-Finnish Ozone Monitoring Instrument aboard NASA's Aurora satellite. After adjustment for relative humidity and UV, they found temperature held no significant associations with cumulative incidence rate, and that UV was not significantly associated with cumulative incidence rate after adjustment for temperature and relative humidity.

These studies – though some are pre-print and in peer review – do not agree with what DHS's Bill Bryan or the DHS presentation published a week ago said.

And none of them match what Trump said, whatsoever.

Media outlets really need to have a science reporter covering Trump's briefings rather than the usual White House correspondents – people who are already highly versed in COVID-19 research and are able to put Trump on the spot.

Or the media needs to give up covering Trump's briefings live if they can't do real time pushback and demand better of the guy occupying the White House. Carrying his unfiltered bullshit will get somebody killed and damage businesses which are doing their best to operate under the strain of pandemic conditions.

~ ~ ~

We know now from the Washington Post that Trump's unacceptable remarks on light and disinfectant therapy for treatment of COVID-19 may have been inspired by a briefing about a DHS study:

Trump's commentary seemed to be inspired by a presentation from a Department of Homeland Security official about a promising but still inconclusive government study exploring the possibility of heat, humidity and light to kill the virus, as well as the effectiveness of disinfectants in killing it on surfaces such as tables, countertops and office workspaces.

Emphasis mine. An *in-fucking-conclusive* study, the same one on which Bill Bryan gave a presentation. Why was it offered at all? To provide happy talk for the daily propaganda program?

William Bryan, the department's acting undersecretary for science and technology, first shared the study with members of the White House coronavirus task force on Wednesday and returned Thursday. He said his department had studied the virus in an air chamber and never said chemicals or UV light had been studied on humans nor suggested they be used in humans, according to several administration officials.

Why did he come back? Did some asshole on the White House coronavirus task force think Bryan could finesse this inconclusive report?

Others on the task force, including Birx, White House chief of staff Mark Meadows, as well as McEnany and others in the communications and press shops, were concerned that the Department of Homeland Security study had not been

thoroughly vetted. "It was not ready at all to go to the president," the senior official said. "There was no guideline. There was no data. There was nothing."

Oh. Now we have sources named. At least one of these people and/or Dr. Fauci are most likely to have said this "study" was not ready to go to Trump. If these three and Dr. Fauci didn't think it was ready, how did it end up getting in front of Trump?

Still, Vice President Pence and his team wanted Bryan to present the information to the president and to the public, eager to have something positive to share. They hoped the study would help encourage people to spend more time outdoors and to disinfect their homes, aides said.

Oh great – Mr. HIV-outbreak-of Indiana Pence with a history of ignoring public health officials' advice to the public's detriment, probably ignored the opinions of task force members who felt the DHS "study" was not ready for Trump's propaganda show.

This time Pence's bad decision-making resulted in an onslaught of calls to poison control center numbers and at least 20 people in New York alone who ingested bleach or disinfectant.

No word yet as to whether someone has fried themselves crispy outdoors in an effort to get rid of SARS-CoV-2 using ultraviolet light having relied on the misinfo/disinfo served up by the idiocracy in the White House.