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MoA - Professor Chossudovsky Is Wrong

October 13, 2020

Professor Chossudovsky Is Wrong - Here Is How PCR Tests Work

The website [Global Research](#) provides at times interesting reading. It is edited by Michael Chossudovsky, an [emerited professor for economics](#). Unfortunately he at times writes about issues that are beyond his horizon.

In a recent piece, [The Covid-19 Numbers Game: The “Second Wave” is Based on Fake Statistics](#), he falsely claims that the tests which are globally used to detect SARS-CoV-2 infections also react to other viruses and thereby deliver false results.

The method of the currently used SARS-CoV-2 test is based on the [reverse transcription polymerase chain reaction](#) (RT-PCR). The polymerase chain reaction can create millions of copies of RNA or DNA snippets fed into it:

Polymerase chain reaction (PCR) is a method widely used to rapidly make millions to billions of copies of a specific DNA sample, allowing scientists to take a very small sample of DNA and amplify it to a large enough amount to study in detail.

...

Thermal cycling exposes reactants to repeated cycles of heating and cooling to permit different temperature-dependent reactions – specifically, DNA melting and enzyme-driven DNA replication. PCR employs two main reagents – **primers (which are short single strand DNA fragments known as oligonucleotides that are a complementary sequence to the target DNA region)** and a DNA polymerase.

A clinical probe is taken from a human who may have the virus. In a preparation phase the probe is chemically cleaned and the outer hulls of viruses in it get destroyed. What is left includes the genetic material of the virus.

The genes of the SARS-CpV-2 are an RNA sequence with roughly 30,000 nucleotides. It is like a book with 30,000 characters on how to build the virus. It is unique for this virus. The researchers who developed the SARS-CoV-2 RT-PCR test have selected several about 100 nucleotides long snippets out of the much longer string. Complementary oligonucleotides

of the same length will then get synthesized. These are the primers for all following PCR tests.

The cleaned sample (10 to 200 μL), the primers and the polymerase are fed into a machine. Repeated cycles of heating and cooling will each multiply the number of RNA snippets in the sample. Luminescent markers are added to get an automatically readable result. Typically some 20-25 cycles are needed to detect the virus RNA snippets of an acute infection. When more cycles (typically up to 40) are used even a minimal amount of a specific virus RNA snippet can be detected. The process is highly automated.

Chossudovsky has not understood how the above process works. Specifically he has not understood that the selection of the oligonucleotides for the primer is very specific to the type of virus the test is supposed to detect.

Thus he is wrong when he writes:

According to Dr. Pascal Sacré, “these tests detect viral particles, genetic sequences, not the whole virus”

What this means is that the PCR test cannot detect or identify SARS-CoV-2. What it detects are fragments, which suggests that a standard “PCR positive” cannot be equated to a so-called Covid-19 Positive.

The PCR test will pick up fragments of several viruses including corona viruses as well as influenza (flu viruses A and B)

While SARS-2 which causes Covid-19 is considered to be similar to SARS-CoV-1, it has similar symptoms to seasonal influenza (Viruses A and B). Moreover, some of its milder symptoms are similar to those of the common cold corona viruses. According to the CDC: “Sometimes, respiratory secretions are tested to figure out which specific germ is causing your symptoms. If you are found to be infected with a common coronavirus (229E, NL63, OC43, and HKU1), that does not mean you are infected with the 2019 novel coronavirus.”

According to the CDC there are “seven [human] coronaviruses that can infect people” the first four of which (alpha, beta) are associated with the common cold.

...

In the above context, what this means is that **a PCR test will pick up fragments of corona as well as influenza viruses**. It will not be able to identify individual viruses

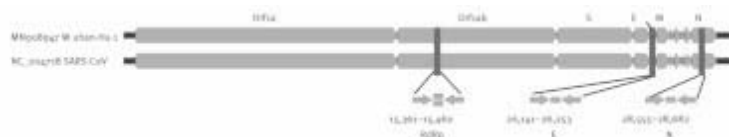
including SARS-2.

“Fragments of viruses positive” does not mean “SARS-2 positive” (or Covid-19 Positive).
The PCR test may pick up fragments of influenza viruses (A, B) as well as common cold beta coronaviruses (e.g. OC43, HKU1).

This highlighted passages are as wrong as one can possibly get it wrong. The RT-PCR tests for SARS-CoV-2 DO NOT detect other types of viruses.

We know this because the folks who developed the test the WHO recommends to use have written about their development process:

We downloaded all complete and partial (if > 400 nt) SARS-related virus sequences available in GenBank by 1 January 2020. The list (n = 729 entries) was manually checked and artificial sequences (laboratory-derived, synthetic, etc), as well as sequence duplicates were removed, resulting in a final list of 375 sequences. These sequences were aligned and the alignment was used for assay design (Supplementary Figure S1). Upon release of the first 2019-nCoV sequence at virological.org, three assays were selected based on how well they matched to the 2019-nCoV genome (Figure 1). The alignment was complemented by additional sequences released independently on GISAID (https://www.gisaid.org), confirming the good matching of selected primers to all sequences.



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The selected oligonucleotide assays, each specific for a certain snippet of the SARS-CoV-2 virus RNA, were then tested for their sensitivity and chemical stability.

They were also tested for cross-reactivity with other viruses:

Cell culture supernatants containing all endemic human coronaviruses (HCoV)-229E, -NL63, -OC43 and -HKU1 as well as MERS-CoV were tested in duplicate in all three assays (Table 2). [...] Additional undiluted (but not quantified) cell culture supernatants were tested as summarised in Table 2. These were additionally mixed into negative human sputum samples. **None of the tested viruses or virus preparations showed reactivity with any assay.**

In total 297 clinical samples with 23 different human virus types in them were tested. The

newly developed assays developed to find only SARS-CoV-2 reacted with none of those.

Table 2. Tests of known respiratory viruses and bacteria in clinical samples and cell culture preparations for cross-reactivity in 2019 novel coronavirus E and RdRp gene assays (n = 310)
Toggle display: Open fullscreen

Clinical samples with known viruses	Clinical samples ^a	Virus isolates ^b
HCoV-229E	14	1 ^c
HCoV-OC43	16	2 ^d
HCoV-NL63	14	1 ^e
HCoV-229E	18	2 ^f
MERS-CoV	5	1 ^g
Influenza A(H1N1)pdm09	17	1
Influenza A(H3N2)	16	1
Influenza A (untyped)	11	NA
Influenza A(H5N1)	1	1
Influenza A(H7N9)	0	1
Influenza B (Victoria or Yamagata)	31	1
Rhinovirus/enterovirus	31	NA
Respiratory syncytial virus (A/B)	33	NA
Parainfluenza 1 virus	12	NA
Parainfluenza 2 virus	11	NA
Parainfluenza 3 virus	14	NA
Parainfluenza 4 virus	11	NA
Human metapneumovirus	16	NA
Adenovirus	13	1
Human bocavirus	6	NA
Legionella spp.	3	NA
Mycoplasma spp.	4	NA
Total clinical samples	297	NA

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The PCR test for SARS-CoV-2 has a high specificity. It can not detect other types of viruses.

There are additional safety procedures to avoid false tests.

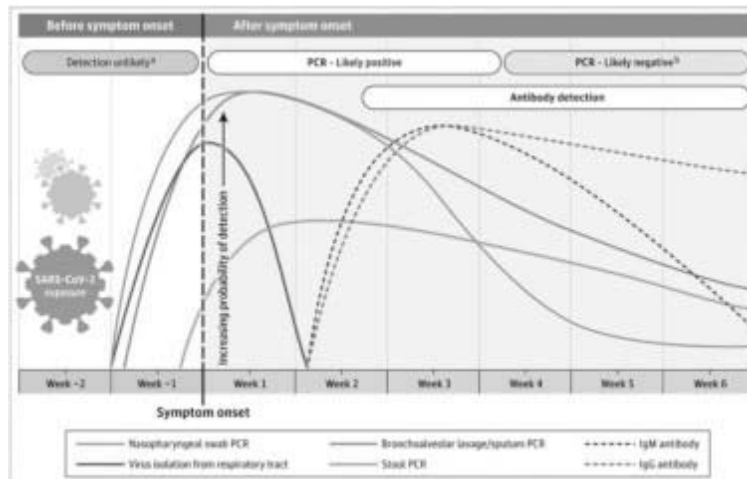
Each test run of typically 90 to 120 samples will include one quality control sample with a known quantity of the SARS-CoV-2 virus RNA. It will also include one quality control sample that is guaranteed to contain no virus RNA. At the end of each run the results of both quality assurance samples will be compared with the expected value. If there is any mismatch the whole run it will be repeated with fresh sample extracts.

When the laboratory machine runs the SARS-CoV-2 PCR test it also will also note the number of cycles it needed for each sample to first detect a reaction. That will typically be in the 20-30 cycles range. If a detection is only made towards the end of the 40 cycle program the machine will note this and alert its operator. Tests which only show positivity above 35 cycles will usually get repeated as such a low reactivity may point to a potential sample contamination.

Where a coronavirus test can go wrong is at the point of sample taking. The swab that is used may not have picked up enough gunk to catch a significant number of viruses. The PCR test will then show the person as negative even when it has caught SARS-CoV-2. There

can also be bureaucratic errors where the sample is attributed to the wrong person. The test protocols are designed to prevent this and such cases are rare.

When a person gets infected with SARS-CoV-2 and starts to reproduce the virus its numbers explode to billions of copies per milliliter. When the immune system starts to defeat the virus the number will go down. Debris of dead virus may still be in the body four to five weeks after the infection onset even when the person is no longer infectious. The graphic below shows which test reacts at which stage of an infection.



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A person that is tested PCR-positive for SARS-CoV-2 will have been infected with the virus. There is no other way to pick up the RNA snippets the PCR test is looking for. But that person may not have developed COVID-19 symptoms and may no longer be infectious. We do not know this for sure. Tests to find out if a person still spreads viable viruses take a several days and require a lot of manual labor in high security laboratories. These can not be done for everyone.

To recap:

- The PCR test for SARS-CoV-2 is highly specific for that virus and does not detect any other ones.
- A positive PCR tests demonstrates that the person has or has had the virus.
- We have no practical way to tell if that person, even when it shows no symptoms, is still infectious and spreading the disease.

The only way to prevent new infections coming from a PCR-positive person is to isolate that

person. After 10 days the immune system of most people will have defeated the virus. (That a significant number of people are still ill at that point is the consequence of an exaggerated immune reaction to the virus, not of the virus itself.)

It is sad that an otherwise useful site like *Global Research* is spreading such false information about the Coronavirus pandemic. Chossudovsky should stick to writing about social issues. He obviously lacks the basic hard science knowledge that is necessary to understand how PCR tests work.

Spreading such unqualified statements during a pandemic like Chossudovsky's piece does is highly irresponsible.

That is the reason why I delete comments at this site with spread similar nonsense.

Posted by b on October 13, 2020 at 19:34 UTC | [Permalink](#)

Then why does the test produce so many false positives ?

Posted by: Eatson | Oct 13 2020 19:53 utc | [1](#)

Chossudovsky is wrong, but going in the right direction.

False positives in PCR tests are a real problem and a real phenomenon.

There is a mathematical likelihood that false positive rates in large tested populations can skew "new cases" data, particularly if the real case number is low.

Note this commentary and overview of the false positive phenomenon (due to PCR test issues): [PCR false positives can skew real COVID-19 status](#)

Associate Chief Medical Officer of Health Dr. Barbara Yaffe cautioned against seeing wide-spread COVID-19 testing as a solution. She went on to state that “in fact, if you’re testing in a population that doesn’t have very much COVID, you’ll get false positives almost half the time.”

...

With a prevalence of e.g. 0.5%, we expect that 200 out of 40,000 tests are true positives. If we assume the sensitivity characteristic of the test at 99%, we get 198 correct positives out of the 200 true “infections” that should be detected, while two are missed. These two misses are false-negative results. False negatives are problematic, since potentially infectious persons are told that they don’t pose a risk to their environment. However, at

a low prevalence of the disease, these misses are very small, even negligible, in comparison with the correctly identified negatives.

...

With an assumed specificity of 99.5%, our test would determine 39,601 correct negatives out of 39,800 persons who are truly not "infected". An issue arises with the remaining 199 false positives, which are wrongly detected by the test although they do not carry the virus. While the number is small in proportion to the correct negatives, we need to view it in relation to the 198 correct positives. From the perspective of each person testing positive, the chance that they are in fact falsely positive is 199 : 198, thus **50% of the 397 total positive test results are false positives, in line with the warnings by the officials cited above. The relationship is only this large due to the low prevalence of the disease.**

Note the above isn't conjecture, it is math. If the actual infection rate is high, then the false positive rate doesn't matter much.

But if the infection rate is low, then the false positive rate matters very much.

Posted by: c1ue | Oct 13 2020 20:05 utc | [2](#)

In The Netherlands the tests have been modified, to allow for quicker tests, as well as using less resources. This involved increasing the number of cycles, while still assigning the positive outcome to the test. And hey, we get a scamdemic. And based on the number of positive tests, and not the capacity at the hospitals, the new lockdown has been put in place. Even worse, lots of people have been conditioned to go along with all these measures.

Posted by: drexcia | Oct 13 2020 20:10 utc | [3](#)

@Eatson: It doesn't. You fall for the crap distributed by people who don't understand the basics. Example given above.

Posted by: Cemi | Oct 13 2020 20:10 utc | [4](#)

PCR Tests are not suitable for screening. That is exactly what they are used for in many cases. Search for "bayes probability & medical tests" if you wish to find out why. Then, a PCR test is accurate when used correctly, which is often not the case.

P.S: Chossudovsky is an easy victim. Why picking him and not a serious source like, e.g. [Dr. Malcolm Kendrick's excellent site?](#) ;-)

Posted by: Johannes | Oct 13 2020 20:15 utc | [5](#)

Same problem with diabetes test kits. Would you give A1C tests to random passers-by, despite some having eaten minutes ago while others may not have had food for hours? You'd be falsely diagnosing thousands of otherwise healthy people as diabetic.

PCR is intended to corroborate other evidence of an infection. It is not suited for random 'presumed healthy' screening.

Posted by: Dr Wellington Yueh | Oct 13 2020 20:31 utc | [6](#)

That's interesting and its good to set the record straight.

I'm finding it hard to get excited about covid itself anymore. Most countries have not been suffering an unusual death rate since July. The US is now suffering fewer deaths per week than occur on average. So how is it not largely over? Surely we're not saying that somehow this is the first epidemic in history to never have an end?

On the other hand, I'm still intensely interested in the behaviour surrounding the topic. How strong the reactions have been; how quickly science got politicised; how easily a lot of people seem to abandon fact-based discussion and revert to mud-slinging; the human tendency to simplify a complex subject by focusing on one aspect; the emerging social cost of lockdowns; and the probably impending financial depression. I'm horrified by how some regions (eg. Victoria in Australia) have become police states, and by how much unconcerned support they have from most of the people. Sorry, no wise conclusions to offer yet. Just plenty to ponder...

Posted by: Deltaeus | Oct 13 2020 20:35 utc | [7](#)

c1ue @2, your comment as written is perhaps a little misleading. In your third quoted section you highlighted in bold a line that conveys that 50% of positive test results are false positives, and then further asserted "Note the above isn't conjecture, it is math."

But you left out the fact that that quote was really just an example.

Here's the key part that you left out:

*The specificity of the PCR test for Sars-CoV-2 **is a bit of a mystery and moving target**, but before I discuss it, I will go through **one example** to explain the significance of false-positive results in the current phase of the pandemic.*

Posted by: Cana | Oct 13 2020 20:37 utc | [8](#)

Westerners are a fascinating bunch. They simply are impervious to facts. And not only that: the more the facts stake against them, the more they double down on darkness and ignorance.

Posted by: [vk](#) | Oct 13 2020 20:39 utc | [9](#)

First let me say that I am internationally recognized Expert in Cell and Molecular Biology and have used PCR and rt-PCR since the mid 1980's. In my laboratory we found rt-PCR to be to unreliable and inaccurate to use for research purposes which have much less stringent criteria than any Clinical Diagnostic Test. I cannot believe that it is being used for any Diagnostic.

Professor Chossudovsky is not incorrect in his statements. RT-PCR only needs a fragment of the viral RNA to generate a potentially positive signal. This of course would not be necessarily an indication of a functioning infective virus. Furthermore, in my professional experience PCR is useless without coupling the amplification of the amplified DNA sequence products with further separation of the size of the amplified fragment on an agarose gel. PCR is used in this way where the 2 primers are a certain distance apart in the known intact nucleic acid sequence. When you amplify you then must see a 200 or 250 or 175 base pair fragment on the gel to confirm correct amplification. In practice many other fragments of DNA are generated which are not the correct piece. Garbage would be an appropriate term. I do not believe such a separation step is performed on these samples because it would be impossible for high thru put screening with such a test.

Furthermore, RNA is much less stable than DNA a biochemical and chemical fact. Also, the reverse transcriptase step further complicates accuracy and reproducibility in this test.

So the take home message is that the Test is Garbage and as such so are the results from the test. Only an antibody based test for viral proteins should be employed to determine if someone has the virus.

But that would defeat the ability to mislead the public and make Billions of Dollars so you won't see that.

The serological tests for antibodies that react with Covid have more utility except that they may detect other closely related Coronaviruses such as the one which causes many common colds.

Its fun to watch people chasing their tails even when they don't have one that is visible externally.

Professor Chossudovsky is obviously a highly intelligent person and a quick study as most of what he has written is much more correct and accurate than the Professional Bureaucratic Imbecile Fauci and Clown Prince Gates.

Posted by: Professor Dr. G | Oct 13 2020 20:42 utc | [10](#)

@vk #9:

OK, so...accept only the facts you say are correct, ignore any of the other facts presented by 'some other side(s)'. Got it!

Posted by: Dr Wellington Yueh | Oct 13 2020 20:42 utc | [11](#)

(That is the reason why I delete comments at this site with spread similar nonsense.

So why are Norwegian's many comments still peddling, *Covid-19 is a fake virus*, still appearing?

Posted by: Circe | Oct 13 2020 20:44 utc | [12](#)

Eatsom@1 thinks that the PCR test produces "so many false positives".
Cemi@4 thinks it doesn't.

You decide for yourself. Data drawn from <https://ourworldindata.org/>

In US, they are performing roughly 700,000 tests a day (2-3% of population)

They report roughly 45,000 cases a day in recent weeks (~6% positive of those tested)

They report about 600 deaths a day (case fatality rate ~ 1.7%)

If the false positive rate for PCR is 0.8%, and the prevalence is about 5%, then you can expect about a 5.8% reported rate ($5.0 + 0.95 \cdot 0.8$).

On the one hand, that means that about 15% of "cases" reported are false positives.

On the other hand, that means that about 85% of the "cases" reported are real infections.

Does the difference between 5% and 6% of the population being infected change things in any significant way?

Posted by: Deltaeus | Oct 13 2020 20:49 utc | [13](#)

PCR reactions are notoriously difficult to optimize and can give false positives. Depending on the annealing temp, length, salt concentration, target region and other factors, PCR primers can exhibit poor specificity.

Posted by: PCR dude | Oct 13 2020 20:50 utc | [14](#)

The real catch with this type of DNA analysis is that it is only 'matching chunks'... it does not 'sequence the genome'.

The 'matching chunks' thing is a problem with respect to thugs like racial profiling because similar people have similar chunks. Think for yourself about how that might translate to problems in virus identification.

Posted by: Rae | Oct 13 2020 21:04 utc | [15](#)

investigating covid19 is also beyond your horizon ep with regard to hydroxychloroquine, which u claim is useless and possibly dangerous

39 elderly Texans successfully complete hydroxychloroquine treatment for COVID-19, doctor says

https://www.youtube.com/watch?v=XqWxlH29_i4

Posted by: brian | Oct 13 2020 21:16 utc | [17](#)

Maybe he wants to be invited to ... the Laura Ingraham show so that she can tell us that the CDC cooked the books to make Trump look bad and help China.

Posted by: Christian J. Chuba | Oct 13 2020 21:23 utc | [18](#)

I recall a Czech scientist saying last spring that the initial test devised by the US CDC selected three sites for test matching and one of those sites matched other corona viruses like common cold. She called this out as bad design, expensive, complicated and not suitable to pandemic situation. They, the Czechs, designed their own test which they then shared widely across the world.

Posted by: suzan | Oct 13 2020 21:33 utc | [19](#)

This i agree with b. I think Chossudovsky was wrong about why the tests are inaccurate. But the tests are not totally accurate.

"For RT-PCR tests, like those used to diagnose COVID-19, false negatives occur for a variety of reasons, such as the level of viral RNA being below the limit of detection of the test.

If the specimen cannot be sent immediately, it should be refrigerated at 2-8°C for up to 72 hours. If transport is not possible within 72 hours, then the sample should be stored at -70°C or below. Without proper transport medium or storage, specimens degrade. This is especially true for the RNA that is detected by an RT-PCR test. RNA is less stable than DNA, so if a specimen is not transported or stored appropriately, the risk of a false-negative RT-PCR result increases.

The art of determining how much viral RNA detected in a person is clinically significant, and therefore the target LOD for an accurate test, is just that...an art.

As yet, there is no consensus on how accurate our testing is, and given the potential for asymptomatic carriage and prolonged viral shedding post-infection, we likely have a long road ahead and many lessons to learn.)

“Since the test is new, its performance needs to be compared to the performance of a current “gold-standard” test, also known as the “reference standard”. There currently is no gold-standard diagnostic test for SARS-CoV-2 since the virus is new to us.” American Society for Microbiology

Professor Carl Heneghan is director of Oxford’s Centre for Evidence-Based Medicine. When virus levels in the population are very low, the chances of a test accurately detecting Covid-19 could be even less than 50 per cent – for reasons that are not widely understood....Problems with test accuracy are likely to be more of an issue globally. The current US Centers for Disease Control test kits can generate up to 30 per cent false positives even in

their best laboratories. Highly accurate tests can prove costly – more than £100 per test. So, we shouldn't be surprised that in poorer countries, highly questionable cheaper alternative tests, which cost less than £3, have been distributed and used. A recent BMJ review reported that the specificity of PCR tests could be as low as 95 per cent, as PCR test performance can be much worse in low prevalence community settings. This would mean that, in our hypothetical of 10,000 tests, we'd have 500 false positives amongst the eight genuine positives. So the hundreds of false-positive Covid-19 results would dwarf the genuine results – meaning an apparent surge in infections that is not followed by a corresponding surge in hospital admissions or deaths.

Or False positive tests | Dr. Malcolm Kendrick
drmalcolmkendrick.org/2020/09/28/false-positive...

Sep 28, 2020 • I was recently in a conversation with an acquaintance and tried to explain that when there is a low overall disease prevalence (as is widely acknowledged, ONS puts it at 0.1%) the false positive rate (FPR) of the rt-PCR will result in virtually all positives being false.

RT: When seven staff at a Scottish football club tested positive for coronavirus, alarm bells went off. But really alarming was when six of those results turned out to be wrong. Such inaccurate tests are exaggerating the problem.

The Conversation

In the real world, testing conditions and process are far from perfect, and accuracy suffers. Researchers still don't know what the real-world false positive rate is, but clinical sensitivity of RT-PCR tests ranges from 66% to 80%. That means nearly one in three infected people who are tested will receive false negative results.

Reporting on a Chinese Study - HCP Live: Results indicated 59% (n = 601) of the patients had positive RT-PCR results and 88% (n = 888) had positive chest CT scans. In patients with negative RT-PCR results, 75% (n = 308) had positive chest CT findings... The authors noted that the data was collected from Wuhan—site of the central outbreak—and, therefore, radiologists may have been more likely to make a diagnosis of COVID-19 when typical CT features were found.

In another study : In the study, 86% (n = 840) of patients had CT findings “suggesting” infection.

Lastly, I feel it is important to note the sensitivity of RT-PCR testing, as described above, is less than optimal.

Gepay comment = Cars Sov2 has never been actually gold standard isolated especially in patients clinically diagnosed as Covid 19 See Jon rapaport or Andrew Kaufman for a detailed explanation of why this is true. This doesn't mean there isn't a SARS Cov 2 as they think might be possible but just that It hasn't been isolated such that there hasn't been obtained a pure isolate of the virus and there is no gold standard to test the accuracy of the various rt PCR tests . That is why mostly you see the studies using clinical symptom diagnoses to compare the accuracy rather than virally isolating CAR Cov from the positives . the antibody tests can cross react. The antibody tests are also only testing for blood

antibodies while missing infections that cleared before making blood antibodies . Mucosal antibodies used for upper respiratory diseases are not tested for.

I repeat "There currently is no gold-standard diagnostic test for SARS-CoV-2 since the virus is new to us." American Society for Microbiology

So clinical symptoms are used to verify the accuracy not gold standard comparing to isolated SARS Cov 2 taken from positive subjects

Reporting on a Chinese Study - HCP Live: "Results indicated 59% (n = 601) of the patients had positive RT-PCR results and 88% (n = 888) had positive chest CT scans. In patients with negative RT-PCR results, 75% (n = 308) had positive chest CT findings..., The authors noted that the data was collected from Wuhan—site of the central outbreak—and, therefore, radiologists may have been more likely to make a diagnosis of COVID-19 when typical CT features were found.

In another study : In the study, 86% (n = 840) of patients had CT findings "suggesting" infection.

Lastly, I feel it is important to note the sensitivity of RT-PCR testing, as described above, is less than optimal."

So as of today there is no way to say that finding SARS SOV 2 fragments with an RT PCR test is conclusive with for findng it caused illness or death. There are certainly other factors like comorbidities or even the initial protocols used in hospitals that were the deciding factor.

Posted by: gepay | Oct 13 2020 21:33 utc | [20](#)

another site i deleted from my list a while back due to rampant covidioicy. even ICH has posted wank by mike whitney recently. anyhoo...

haven't seen a ton of coverage for [this](#) while you're on the subject. another nail in the coffin of "it's the flu" if the linked study withstands scrutiny.

Posted by: the pair | Oct 13 2020 22:03 utc | [22](#)

If somebody thinks a test is wrong, they publish evidence to this effect in the scientific literature. Usually they publish evidence pertaining specifically to the test in question, and evidence that is of a higher scientific standard than the original validation of the test they want to challenge.

On the other hand, if somebody wants to lie for some form of personal gain, or to shoe-horn something into an ideology in which it doesn't fit, they simply write a bunch of lies and publish them, or they pay a good lawyer to try to convince a judge who has no background in the subject in question.

The above seems ... bleedin' obvious.

For anybody who knows how these tests work, and how they are developed, and how they are validated, assertions about false positives without a really clear explanation, at the molecular level, of what everybody involved would have missed, is transparently a gish gallop: Just look how much MOA had to write in order to explain.

If somebody claimed false negatives in the PCR test, given the probable variability of swabbing, it would be far more convincing as a starting point. For someone to talk about false positives without fully considering the false negative rate, and the overwhelming likelihood that this will be higher than the false positive rate for any kind of sensitive nucleic acid-based clinical test, is a dead giveaway.

Any lab could acquire testing materials and experiment with them if they want to question their quality. It is not very difficult to do, and plenty of very well-trained people would be motivated to do it. Stereotyping the scientific community as uniformly self-serving or corrupt, is a fantasy. People want to prove each other wrong *all the time*, and they will generally apply considerable wits and ingenuity to do it. Scientists are not all in the pay of big pharma, for sure. Some quite the opposite - screwed over/ripped off by big pharma.

Posted by: Shyaku | Oct 13 2020 22:10 utc | [23](#)

If only Kary Mullis could see this absurd theatre, he'd have a good bitter laugh. Seeing abuse coming, he warned that the PCR method was unsuitable for diagnosis of viral infections. But what did the old fool know - Nobel Prize or not - he only invented it.

It seems that Covid is a raging success in several ways, not least as a new religion among the old who worship the mask as a magical promise of an extra lease on life.

Posted by: Leser | Oct 13 2020 22:43 utc | [25](#)

@ Posted by: c1ue | Oct 13 2020 20:05 utc | [2](#)

This rationalization is absurd. So you have to wait until everybody is infected to being testing?

It doesn't matter the error rate of a test (any kind of test, not just the PCR): an approximate

data is still better than no data. The lack of laser and precision machines didn't stop the Romans from building the Flavian Amphitheater ("Colosseum"). You work with what you have, not with what you should have.

This Barbara Yaffe looks like a charlatan in the pockets of big pharma or a petit-bourgeois advocating for the cause of her class.

Posted by: [vk](#) | Oct 13 2020 22:44 utc | [26](#)

I mean, DUDE,...

Some countries (Russian Federation and allies) rolled out military countermeasures, inside an outside (upon official request) of territorial boundaries.

Some countries billed their governments and insurance companies several tens of billions of dollars for some dumb ass test strip, or some stupid shit. Just sayin'.

Posted by: [Josh](#) | Oct 13 2020 22:47 utc | [27](#)

The WHO says 10% of global population may have been infected by the virus - one in ten globally. That's approx 780,000,000 folks worldwide. If we stipulate 1+ million deaths globally, that's an Infection Fatality Rate of - well folks here are so fond of math - but it's pretty small. Not large enough to destroy western civilization over so it's fair to ask at the agenda at play here. Has it been mass incompetence or something darker, like you know one big step for totalitarianism.

My working conspiracy theory is that this virus is indeed from the lab with gain-of-function aspects that are unknown, and this is the reason for the over-reaction to what is not the plague. Indeed, as so many of the dead are old age pensioners, and as people are living longer and longer, and are SUCH a drain on the economy what better than an old age cleanser.

Covid is not a hoax, but beyond that...

Posted by: [gottlieb](#) | Oct 13 2020 22:48 utc | [28](#)

@ Posted by: [gottlieb](#) | Oct 13 2020 22:48 utc | 28

It's not the pandemic that is destroying Western Civilization. All the data indicates the West

never truly recovered from 2008, the pandemic being only the drop that turned over the bucket.

West's problem is the very decline of capitalism, not a problem of pandemic. This is not Antiquity anymore, modern capitalist economy is determined by artificial cycles.

Posted by: [vk](#) | Oct 13 2020 22:59 utc | [29](#)

Unfortunately he at times writes about issues that are beyond his horizon.

/BLOCKQUOTE>

Look in the mirror, b.

Posted by: Arch Bungle | Oct 13 2020 23:06 utc | [30](#)

Posted by: Professor Dr. G | Oct 13 2020 20:42 utc | 10

I am internationally recognized Expert in Cell and Molecular Biology and have used PCR and rt-PCR since the mid 1980's.

A pubmed search for "polymerase chain reaction" AND "reverse transcriptase" yields a grand total of 18 papers published prior to 1990. With all due respect, you don't really sound like a scientist.

Posted by: farm ecologist | Oct 13 2020 23:11 utc | [31](#)

b, you are obviously not an expert here either.

And there have been many other specialists who have spoken out about the flaws of this test.

At this point, you have proven yourself a complete propaganda whore of big pharma.

Anyone who can do basic math understands this was a money-control-power driven hoax.

Seems you are on board.

Posted by: [Chodduvsky](#) | Oct 13 2020 23:13 utc | [32](#)

From FDA emergency approval letter for Bio-Rad Laboratories, Inc., RTqPCR test.

Positive results are indicative of the presence of SARS-CoV-2 nucleic acid; clinical correlation with patient history and **other diagnostic information is necessary to determine patient infection status. Positive results do not rule out bacterial infection or co-infection with other viruses.**

I guess FDA must be wrong as they agree with professor.

Posted by: Kalen | Oct 13 2020 23:14 utc | [33](#)

Posted by: Crush Limbrow | Oct 13 2020 21:14 utc | 16

Had a look at your link and found a circle jerk of smug ignorance. The one sensible poster who everybody piled on must have felt like Oliver Douglas in Hooterville...

Posted by: farm ecologist | Oct 13 2020 23:32 utc | [34](#)

Would you give A1C tests to random passers-by, despite some having eaten minutes ago while others may not have had food for hours? You'd be falsely diagnosing thousands of otherwise healthy people as diabetic.

You clearly no nothing about diabetes or the A1C test. The test is a measure of how well regulated the blood glucose has been in the last 5 mos. it doesn't matter how recently the person had a meal.

Posted by: Daniel | Oct 13 2020 23:46 utc | [37](#)

Frankly this looks like a clickbait post, simply because it's guaranteed to bring all the pandemic deniers out of the woodwork. This thread will instantly become worthless to follow.

Speaking of tests, I got tested in preparation for today's dental appointment last Friday. Only needed the inside nose swab, not the back of the nasal passage one, fortunately. And the dental office didn't even check the results before I went in! But then they tell me the test is good for thirty days - except my next appointment is November 3 - so I have to get *another* test because it's in a new month. All of which is absurd because tests by definition can not have an "expiration date" - they're only good to show where you are

now, not any future time. Five minutes after you get the results, you could be exposed and be contagious in 2-5 days on average.

Another example of how the US simply doesn't get it.

Meanwhile, China once again shows how it's done. A followup to the tweet I referenced yesterday.

[Covid-19: China's Qingdao to test nine million in five days](#)

Posted by: Richard Steven Hack | Oct 13 2020 23:48 utc | [38](#)

VK @ 36 posts:

['Pandemic fatigue': Sweden didn't impose Covid-19 lockdown to avoid the wrath of the public, health chief says](#)

Fear of the mob. That's how the Swedish scientific community operates. Science was never a factor there.

Actual article says:

Sweden did not adopt a nationwide lockdown so as to avoid long-term “pandemic fatigue” among the population, according to the director general of the country’s National Board of Health and Welfare.

“We did not choose the path of a complete lockdown of society, because we had other arguments for a systematic response to a pandemic,” explained Olivia Wigzell. The official was speaking at the conference ‘Pandemic 2020: Challenges, Solutions, Consequences’ held in Moscow this week.

“We were very afraid, we feared that people would develop such a pandemic fatigue, that people would get tired of restrictions. But in Sweden, practically everyone followed the recommendations,” she added.

Sweden famously bucked the trend around the world and opted not to impose a statewide lockdown to prevent the spread of coronavirus among its population.

Schools, gyms, bars and restaurants remained open with minimal restrictions in place and a more laissez faire, voluntary approach adopted to public health guidance such as social distancing and the wearing of masks.

Office staff and university students worked remotely where possible and at-risk groups were advised to stay home or to limit their social interactions in public.

Wigzell claimed that, throughout the pandemic, Sweden reinforced its healthcare system while keeping between 30 and 40 percent of its beds free, with ventilators available if needed, to accommodate any and all surges in coronavirus patients ...

The RT.com article might have done better to replace words like "afraid" and "feared" with less emotional words like "concerned" but then the article probably wouldn't have attracted clickbait attention.

The rest of what Wigzell claims to have done can be disputed - Sweden did not do a great job of protecting people in aged care homes or advising refugee and immigrant communities of the importance of social distancing and appropriate hygiene measures in their own languages (and many if not most staff employed in the aged care homes were drawn from these communities) - but I see nothing in the article to suggest that the Swedish authorities were thinking of possible mob behaviour when they decided not to use lockdown.

Posted by: Jen | Oct 14 2020 0:05 utc | [39](#)

@Daniel #37:

Wife is T2 diabetes diagnosed...basically 'cured' herself through years of exercise and diet modification. Have several family members also T2, but do nothing.

Yeah, I know fuck all about diabetes. The lab-administered A1C test is extremely accurate, but also requires the patient to have not eaten for 12 hrs prior. The test strips are a quick-n-dirty to enable diabetics to monitor levels daily.

Posted by: Dr Wellington Yueh | Oct 14 2020 0:22 utc | [40](#)

I have not heard anyone seriously discuss the following factors to explain results by

country:

- (1) Prevalence of prescription and/or illegal drugs (nearly all have a side effect of increased risk of infection = a weakened immune system).
- (2) poor diet, lack of exercise, high rates of obesity

The common cold, could and sometimes does lead to pneumonia, which could lead ultimately to death.

Masks and lockdowns for common cold should then be warranted?

Certain countries have lifestyles which are less healthy and disease will have different impacts.

Obviously too complex to consider.

Posted by: [HD](#) | Oct 14 2020 0:28 utc | [41](#)

after so many death and suffering , there still ppl who promote their anti lockdown anti mask covid=hoax nonsense

it is sobering to see so many trolls here

Posted by: milomilo | Oct 14 2020 0:28 utc | [42](#)