

# RT-PCR Fact Sheet

## Real Time Reverse Transcription–Polymerase Chain Reaction (Real Time RT-PCR) Test.

*Live document [updated 29 October 2020]*

Before commenting on the RT-PCR testing process, and its obvious limitations, it may be helpful to have a brief explanation of various terms including “virus” and “genetic material”. A virus is a microscopic package of genetic material surrounded by a molecular envelope. The genetic material can be either DNA [Deoxyribonucleic Acid] or RNA [Ribonucleic Acid]. DNA is a two-strand molecule that is found in all organisms, animals plants and viruses, and it holds the genetic code, or blueprint, for how these organisms subsequently develop. RNA is generally a one-strand molecule that copies, transcribes and transmits parts of the genetic code to proteins so they can synthesise and carry out functions that keep organisms alive and developing. There are different variations of RNA that do the copying, transcribing and transmitting. Some viruses such as the coronavirus (SARS CoV-2) only contain RNA, which means they rely on infiltrating healthy cells to multiply and survive. Once inside the cell, the virus uses its own genetic code [RNA in the case of the coronavirus] to take control of and ‘reprogramme’ the cells so that they become virus-making factories.

### **Polymerase chain reaction (PCR)**

This is a widely used molecular biology technique to amplify and detect DNA and RNA sequences. Compared to traditional methods of DNA cloning and amplification, which can often take days, PCR requires only a few hours. PCR is highly sensitive and requires minimal template for detection and amplification of specific sequences.

### **Reverse transcription PCR, or RT-PCR.**

This allows the use of RNA as a template. This allows the detection and amplification of RNA. The RNA is reverse transcribed into complementary DNA, using reverse transcriptase. The quality and purity of the RNA template is essential for the success of RT-PCR. Real time RT-PCR is a method for detecting the presence of specific genetic material from any pathogen. Originally, the method used radioactive isotope markers to detect targeted genetic materials, but subsequent refining has led to the replacement of the isotopic labelling with special markers, most frequently fluorescent dyes. With this technique, scientists can see the results almost immediately while the process is still ongoing; conventional RT-PCR only provides results at the end.

### **Quantitative PCR (qPCR)**

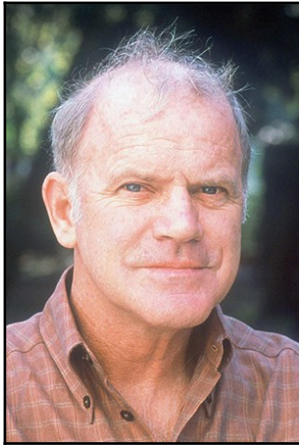
This is used to detect, characterize and quantify nucleic acids for numerous applications. Commonly, in RT-qPCR, RNA transcripts are quantified by reverse transcribing them into DNA first, and then qPCR is subsequently carried out. DNA is amplified by 3 repeating steps: denaturation, annealing and elongation. However, in qPCR, fluorescent labelling enables the collection of data as PCR progresses.

### **Unclear Science**

Although the world relies on RT-PCR to “diagnose” SARS CoV-2 infection, the science is clear: the test is not fit for purpose. Economic lockdown, and other draconian measures, around the world are based on numbers of cases and mortality rates created by the SARS CoV-2 RT-PCR tests used

to identify “positive” patients, whereby “positive” is interpreted by Governments as “infected.” The facts suggest otherwise; the PCR tests are meaningless as a diagnostic tool to determine an alleged infection by a supposedly new virus called SARS CoV-2.

### What The Inventor of The Test Said



Kary Mullis, the inventor of the Polymerase Chain Reaction (PCR) technology, was awarded the Nobel prize in chemistry in 1993. There is no doubt that the biochemist regarded the PCR as inappropriate to detect a viral infection. The intended use of the PCR was, and still is, a technique to replicate DNA sequences billions of times, and NOT as a diagnostic tool to detect viruses. Moreover, the PCR tests used to identify so-called Covid-19 patients assumed to be infected by SARS CoV-2 do not have a valid Gold Standard to compare them with. This is a fundamental point. The other major factor in the testing process (even if the RT-PCR test was appropriate and reliable – which it is admitted it is not) the Coronavirus that is supposed to cause the Covid-19 disease has NOT been identified or isolated in a laboratory – so it begs the question – how can you test for a

specific strain of virus that has not been isolated or identified and may share it's RNA profile with other Coronaviruses that may be present in the person tested. It is probable that anyone who has previously had a 'flu' vaccine, had the flu in the past or had a common cold caused by a Coronavirus strain may test positive, because the SARS-CoV-2 strain of a related virus may be present in the sample.

### No 'Gold Standard'

Tests need to be evaluated to determine their preciseness [their “sensitivity” and “specificity”] by comparison with a “Gold Standard,” meaning the most accurate method available. There is a lack of “Gold Standard” for Covid-19 testing.” Only a virus, proven through isolation and purification, can be a solid Gold Standard. It is absurd to take the PCR test itself as part of the Gold Standard to evaluate the PCR test. What remains unclear is the origin of the RNA used to calibrate the PCR test. Particle purification [i.e. the separation of an object from everything else that is not that object] is an essential pre-requisite for proving the existence of a virus, and thus to prove that the RNA from the particle in question comes from a new virus. Although PCR is extremely sensitive and can detect even the smallest pieces of DNA or RNA it cannot determine where these particles came from. That has to be determined beforehand. Because the PCR tests are calibrated for gene sequences [in this case RNA sequences as SARS CoV-2 is alleged to be a RNA virus], it is imperative to know that these gene snippets are part of the looked-for virus. That requires correct isolation and purification of the presumed virus which has not, to date, been achieved. No electron-micrographs showing **purified** SARS CoV-2 virus currently exist. There are no reliable tests for a specific Covid-19 virus. There are no reliable agencies or media outlets for reporting numbers of actual Covid-19 virus cases. Every action and reaction to Covid-19 is based on totally flawed raw data thus making accurate assessments to inform political decisions impossible.

### What Unique Symptoms Are People Experiencing and Testing 'Positive' For?

Most people with Covid-19 are showing nothing more than cold / influenza like symptoms. Both the common cold and seasonal influenza are coronaviruses. The few actual novel coronavirus cases do have some worse respiratory responses, but still have a very promising recovery rate, especially for those without prior medical issues. The test is known not to work. Additionally, it is only looking for partial viral sequences, not whole genomes, so identifying a single pathogen is next to impossible even if you ignore the other issues, including “viral load”. The test kits being sent out to hospitals, at best, tell analysts that those tested have some viral DNA in their cells

which most have – most of the time. The test may detect a viral sequence related to a specific type of virus: the huge family of coronavirus. The assertion that these kits can isolate a specific virus like Covid-19 is nonsense. The raw data from the testing process has generated totally misleading mortality statistics used to justify economic lockdown and other draconian measures by political leaders who have assumed that these tests should be used for diagnostic purpose. As the PCR test amplifies minute amounts of DNA it can not assess “viral load” required in diagnosing illness.

### **Recent Study**

A team of South Korean infectious disease researchers has concluded there is no evidence that people can be reinfected with the SARS-CoV-2 virus. The researchers, led by Oh Myoung-don, MD, head of Seoul National University Hospital’s division of infectious diseases, believe that reports of patients who have recovered from COVID-19 and subsequently tested positive again for SARS-CoV-2 were not due to reinfection or reactivation but, rather, to testing errors. According to Dr. Oh, the PCR (polymerase chain reaction) tests used to determine the presence of the SARS-CoV-2 virus and help diagnose cases of COVID-19 cannot distinguish between the virus and harmless fragments of the virus. Vaccine developer Seol Dai-wu of Chung-Ang University in Seoul, South Korea agrees and has stated that *“The RT-PCR machine itself cannot distinguish an infectious viral particle versus a non-infectious virus particle, as the test simply detects any viral component”*. The findings by Dr. Oh and his research team have been confirmed by the Korean Centers for Disease Control and Prevention (KCDC). On May 18, 2020, the KCDC announced that it had studied 285 cases of patients who had recovered from SARS-CoV-2 infection and later tested positive again for the virus. Despite the positive tests, the agency determined that the patients were not contagious because they did not actually have the virus: that the PCR tests has “falsely identified dead viral matter as active COVID-19 infection.” The new research from South Korea has led to new protocols in that country for handling cases involving people who recovered from COVID-19, completed a period of isolation and then retested positive for the SARS-CoV-2 virus. Now, in South Korea, there is no longer a requirement for people, who have recovered from COVID-19 and gone through isolation, to test negative for SARS-CoV-2 before going back to work or school.

Of the Rt-PCR test, the prevalent Covid test used around the world, the eminent members of the medical profession listed below have advised that more than half of the positive test results are likely to be false, potentially all of them.

- Paul Kirkham, Professor of cell Biology and Head of Respiratory Disease Research Group at Wolverhampton University.
- Dr Mike Yeadon, former CEO and VP, Allergy and Respiratory Research Head with Pfizer Global R &D and co-founder of Zirco Pharma Ltd.
- Barry Thomas, Epidemiologist

They explain that what the RT- PCR test actually measures is simply the presence of partial RNA sequences present in the intact virus, which could be a piece of dead virus which cannot make the subject sick, and cannot be transmitted, and cannot make anyone else sick. They further explain that a true positive does not necessarily indicate the presence of viable virus. In limited studies to date, many researchers have shown that some subjects remain PCR-positive long after the ability to culture virus from swabs has disappeared. They term this a ‘cold positive’ (to distinguish it from a ‘hot positive’, someone actually infected with intact virus). The key point about ‘cold positives’ is that they are not ill, not symptomatic, not going to become symptomatic and, furthermore, are unable to infect others. Overall, Dr.Yeadon builds the case that any “second wave” of Covid, and any government case for lockdowns, given the well-known principles of epidemiology, will be entirely manufactured.

In Boston, in October 2020, a lab suspended doing coronavirus testing after 400 false positives were discovered.

An analysis of PCR-based test at medical website medrxiv.org states: “data on PCR-based tests for similar viruses show that PCR-based testing produces enough false positive results to make positive results highly unreliable over a broad range of real-world scenarios.” The most famous incidence of PCR test unreliability, was when the President of Tanzania revealed to the world that he had covertly sent samples from a goat, a sheep, and a pawpaw fruit to a Covid testing lab. They all came back positive for Covid.

### **Correspondence with Public Health AuthoritiesPublic Health Wales [PHW]**

Confirmation received August 2020 that commercial assays used in Wales for the clinical diagnosis of Sars-CoV-2 infection are all CE marked. The number of amplification cycles in tests can vary with different platforms used. Most platforms use threshold cycles that range from 27 to 43. The threshold cycle is determined by the platform used and is not something the laboratory service has control over. Confirmation also received from PHW in October 2020 that samples from Royal Glamorgan Hospital for Covid testing may be tested in the laboratory in Royal Glamorgan Hospital or laboratories in the Public Health Wales network. The real-time PCR assays in use in Wales for Covid 19 diagnostics all run for 45 cycles however, the cycle number where the sample is defined as "RNA not detected" varies by platform and target gene detected by the system. This is defined by the manufacturer. One platform (Hologic) is isothermal, this means it does not cycle through temperature changes in the same way as the real-time PCR systems, therefore CT values are not reported by this system.

### **Public Health England**

Confirmation received 13 November 2020 that PHE does not hold information on testing kits used by non-PHE laboratories. These laboratories have a statutory duty to report "positive cases" to PHE but they are not obliged to advise PHE which tests they are using.

### **Conclusion:**

For a virus to sicken a massive amount is required. PCR does not test viral load and therefore cannot determine if a virus is present in sufficient quantities to sicken. The test may identify any random virus DNA which leads to false diagnosis and totally misleading Covid-19 infection and mortality statistics. Coronavirus are incredibly common. A large percentage of the world human population will have coronavirus DNA in small quantities even if they are perfectly well or sick with some other pathogen. A very high percentage of people who have become sick by other means (influenza, bacterial pneumonia, or other illness) will have a positive PCR test for Covid-19 even if the tests are conducted properly ruling out contamination, simply because coronaviruses are so common. There are hundreds of thousands of influenza and pneumonia victims in hospitals throughout the world at any one time. It is not possible to “confirm” something for which there is no accurate test. Abstracts from test “Product Information Sheets” and “Safety Data Sheets”, reproduced in Annex 01 below, clearly confirm that the test kits should only be used for research purpose and not clinical diagnosis. Recent global research has concluded that the RT-PCR test can not determine who is "infected" with the virus and who is not, and that test results are virtually meaningless. The validity of the test is currently the subject of litigation with the outcome of the legal challenge awaited.

## Annex 01



### SARS-CoV-2 Coronavirus Multiplex RT-qPCR Kit (CD019RT)

This product is for research use only and is not intended for diagnostic use.

## Safety Data Sheet

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

#### Product Identifiers

**Product Name:** SARS-CoV-2 Coronavirus Multiplex RT-qPCR Kit  
**Catalog Number:** CD019RT  
**Relevant Identified Uses:** For research and laboratory use only. Not for diagnostic, therapeutic, drug, household or other uses.  
(Disclaimer)

LabCorp COVID-19 RT-PCR test EUA Summary - 7/14/2020

### ACCELERATED EMERGENCY USE AUTHORIZATION (EUA) SUMMARY COVID-19 RT-PCR TEST (LABORATORY CORPORATION OF AMERICA)

For In vitro Diagnostic Use

Rx Only

For use under Emergency Use Authorization (EUA) only

(The COVID-19 RT-PCR test (LabCorp Laboratory Test Number: 139900) will be performed at the Center for Esoteric Testing in Burlington, North Carolina, or other laboratories designated by LabCorp that are also certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a as per Laboratory Instructions for Use that was reviewed by the FDA under this EUA.)

#### INTENDED USE

The COVID-19 RT-PCR test is a real-time reverse transcription polymerase chain reaction (rRT-PCR) test for the qualitative detection of nucleic acid from SARS-CoV-2 in upper and lower respiratory specimens (such as nasal, nasopharyngeal or oropharyngeal swabs, sputum, lower respiratory tract aspirates, bronchoalveolar lavage, and nasopharyngeal wash/aspirate or nasal aspirate) collected from individuals suspected of COVID-19 by their healthcare provider.

This test is also for use with the Pixel by LabCorp™ COVID-19 test home collection kit to self-collect nasal swab specimens at home by individuals when determined by a healthcare provider to be appropriate based on results of a COVID-19 questionnaire.

Testing is limited to the Center for Esoteric Testing, Burlington, NC, or other laboratories designated by LabCorp that are also certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a, to perform high complexity tests.

Results are for the identification of SARS-CoV-2 RNA. The SARS-CoV-2 RNA is generally detectable in respiratory specimens during the acute phase of infection. Positive results are indicative of the presence of SARS-CoV-2 RNA; 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. The agent detected may not be the definite cause of disease. Laboratories within the United States and its territories are required to report all positive results to the appropriate public health authorities. Negative results do not preclude SARS-CoV-2 infection and should not be used as the sole basis for patient management decisions. Negative results must be combined with clinical observations, patient history, and epidemiological information.

Testing with the COVID-19 RT-PCR test is intended for use by trained clinical laboratory personnel specifically instructed and trained in the techniques of real-time . . .

## ***Annex 02***

*abstract from Medical Forum*

### **Background**

The information below was presented by a widely respected professional scientist in the USA (not named as he requires anonymity for fear of being victimised and jeopardising his current post and future career – like those who work for the NHS in the UK. They are also keeping quiet because of what is basically a gagging order, that adherence to has in effect become a key factor in them retaining their jobs – some whistle-blowers have been suspended and some have already lost their jobs for speaking out).

Whilst many of us know the COVID-19 pandemic is a scam – this insider evidence on the methodology of the madness is second to none. The following is from a medical forum. The writer prefers to stay anonymous (for obvious reasons as stated above), because presenting any narrative different than the official one, can cause you a lot of hassle and stress in the toxic environment caused by the scam which these days surrounds COVID-19.

### **The Scientist Says:**

“I work in the healthcare field. Here’s the problem, we are testing people for any strain of a Coronavirus. Not specifically for COVID-19. There are no reliable tests for a specific COVID-19 virus. There are no reliable agencies or media outlets for reporting numbers of actual COVID-19 virus cases. This needs to be addressed first and foremost. Every action and reaction to COVID-19 is based on totally flawed data and we simply can not make accurate assessments. This is why you’re hearing that most people with COVID-19 are showing nothing more than cold/flu like symptoms. That’s because most Coronavirus strains are nothing more than cold/flu like symptoms. The few actual novel Coronavirus cases do have some worse respiratory responses, but still have a very promising recovery rate, especially for those without prior issues. The ‘gold standard’ in testing for COVID-19 is laboratory isolated/purified coronavirus particles free from any contaminants and particles that look like viruses but are not, that have been proven to be the cause of the syndrome known as COVID-19 and obtained by using proper viral isolation methods and controls (not the PCR that is currently being used or serology/antibody tests which do not detect virus as such). PCR basically takes a sample of your cells and amplifies any DNA to look for ‘viral sequences’, i.e. bits of non-human DNA that seem to match parts of a known viral genome.

### **The problem is the test is known not to work.**

It uses ‘amplification’ which means taking a very very tiny amount of DNA and growing it exponentially until it can be analyzed. Obviously any minute contaminations in the sample will also be amplified leading to potentially gross errors of discovery. Additionally, it’s only looking for partial viral sequences, not whole genomes, so identifying a single pathogen is next to impossible even if you ignore the other issues.

The Mickey Mouse test kits being sent out to hospitals, at best, tell analysts you have some viral DNA in your cells. Which most of us do, most of the time. It may tell you the viral sequence is related to a specific type of virus – say the huge family of coronavirus. But that’s all. The idea these kits can isolate a specific virus like COVID-19 is nonsense. And that’s not even getting into the other issue – viral load.

If you remember the PCR works by amplifying minute amounts of DNA. It therefore is useless at telling you how much virus you may have. And that's the only question that really matters when it comes to diagnosing illness. Everyone will have a few virus(es) kicking round in their system at any time, and most will not cause illness because their quantities are too small. For a virus to sicken you need a lot of it, a massive amount of it. But PCR does not test viral load and therefore can't determine if a(n) osteogenesis is present in sufficient quantities to sicken you.

If you feel sick and get a PCR test any random virus DNA might be identified even if they aren't at all involved in your sickness which leads to false diagnosis. And coronavirus are incredibly common. A large percentage of the world human population will have covi DNA in them in small quantities even if they are perfectly well or sick with some other pathogen.

Do you see where this is going yet? If you want to create a totally false panic about a totally false pandemic – pick a coronavirus.

They are incredibly common and there's tons of them. A very high percentage of people who have become sick by other means (flu, bacterial pneumonia, anything) will have a positive PCR test for covi even if you're doing them properly and ruling out contamination, simply because covis are so common. There are hundreds of thousands of flu and pneumonia victims in hospitals throughout the world at any one time.

All you need to do is select the sickest of these in a single location – say Wuhan – administer PCR tests to them and claim anyone showing viral sequences similar to a coronavirus (which will inevitably be quite a few) is suffering from a 'new' disease. Since you already selected the sickest flu cases a fairly high proportion of your sample will go on to die.

You can then say this 'new' virus has a CFR (case fatality rate) higher than the flu and use this to infuse more concern and do more tests which will of course produce more 'cases', which expands the testing, which produces yet more 'cases' and so on and so on. Before long you have your 'pandemic', and all you have done is use a simple test kit trick to convert the worst flu and pneumonia cases into something new that doesn't actually exist.

Now just run the same scam in other countries. Making sure to keep the fear message running high so that people will feel panicky and less able to think critically. Your only problem is going to be that – due to the fact there is no actual new deadly pathogen but just regular sick people, you are mislabelling your case numbers, and especially your deaths, are going to be way too low for a real new deadly virus pandemic.

But you can stop people pointing this out in several ways.

You can claim this is just the beginning and more deaths are imminent. Use this as an excuse to quarantine everyone and then claim the quarantine prevented the expected millions of dead.

You can tell people that 'minimizing' the dangers is irresponsible and bully them into not talking about numbers.

You can talk crap about made up numbers hoping to blind people with pseudoscience.

You can start testing well people (who, of course, will also likely have shreds of coronavirus DNA in them) and thus inflate your 'case figures' with 'asymptomatic carriers' (you will of course have to spin that to sound deadly even though any virologist knows the more symptom-less cases you have the less deadly is your pathogen).

Take these 4 simple steps and you can have your own entirely manufactured pandemic up and running in weeks.

They can not “confirm” something for which there is no accurate test.”

**Related Facts From Other Sources:**

We have approximately 380 Trillion viruses in our body at any given time, many of which are from the Coronavirus family, which is quite extensive. Any number of these viruses (or debris from previous infections) can register as a ‘positive’ result from a standard RT-PCR test.

Results are also dependent on the amplification (cycles) used to determine the presence of genetic material. Usually the number of cycles is around 35. Less cycles will produce a ‘negative’ result, more cycles will produce ‘positive’ results. Thirty five cycles is used as the default, but it is highly inaccurate. This is the reason the inventor of the test (Dr. Kary Mullis) specified that this type of test should not be used for diagnosis, but only used for research purposes in a laboratory.

A positive result from a test for COVID-19 should not be recorded as a ‘CASE’. there is absolutely no evidence that a positive test result means that a ‘case’ has been discovered. Local lock-downs are being driven by ‘case’ numbers, often harvested from healthy beings, who are either asymptomatic (highly unlikely to pass any infection on – this is standard medical knowledge) or have genetic debris from past dead virus RNA that is not contagious and bears no relationship to the spread or reappearance of the virus. This wholly misleading and is being falsely used to perpetuate the pandemic myth, for reasons better known to those who are driving this agenda.

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