## CPQ Microbiology (2020) 3:6 Perspective



## **COVID 19 in Israel**

Shimon Shatzmiller\*, Rami Krieger, Inbal Lapidot, Galina Zats & Ludmila Buzhansky

Department of Biological Chemistry, Ariel University, Ariel 40700, Israel

\*Correspondence to: Dr. Shimon Shatzmiller, Department of Biological Chemistry, Ariel University, Ariel 40700, Israel.

### Copyright

© 2020 Dr. Shimon Shatzmiller, *et al.* This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: 26 April 2020 Published: 30 April 2020

**Keywords:** Patient; 5-fluorouracil; Victim

#### What is the Effective Treatment Against the Corona virus?

Anyone can get infected with SARS-CoV-19, but people with a higher risk of serious illness need to take extra care. People with severe underlying medical conditions, such as heart or lung disease or diabetes, may be at increased risk of COVID-19 complications. Older adults (65 years and older) and who are suffering from immune conditions such as cancer, or taking immunosuppressive drugs (implants), are also at increased risk of serious illness.

Employees may consider discussing medical conditions that may place them at greater risk of COVID-19 serious illnesses with their supervisors, and work with their supervisors to determine appropriate measures to help prevent exposure to SARS-CoV-2 at work.

The US Department of Employment-Financed Accommodation Network contains workplace information for people who may be at greater risk of COVID-19 due to age and / or chronic health conditions.

A cure for malaria, flu and AIDS, sleep hormones, plasma donations and even chemotherapy. Essentially, 65 procedures and various research phases are being tested around the world, and 39 official groups are seeking the vaccine. At this time, there is no successful, tested and recommended treatment, but experience shows - when all of humanity is mobilized, the solution will come.

#### **Foreword**

Not just the elderly: This is how you know if you are defined as a risk group for complications from Corona. A new model sets the risk points for those aged 30 and over, for whom the disease may become painful and life-threatening. Meaning: Up to 10 times more likely to develop severe symptoms than other people of the same age.

While it is known that the adult population over 70 and the elderly are automatically at risk for the corona virus, there are other groups that are also at high risk of complications from the disease, as well as people with various health problems and backgrounds, who put them in the dangerous area of the virus. The General Research Institute model presents the risk points to many groups in the public who need to exercise caution.



Risk groups with a tendency to develop COVID 19 complications (credit ref. [1])

The health issues and diseases defined as "risk points" for coronary virus complications are cardiovascular disease, diabetes, hypertension, smoking over 10 years, obesity with the bmi index greater than 30 and hospitalization in the last 3 years - with each hospitalization constituting A point in itself that is added to AD.

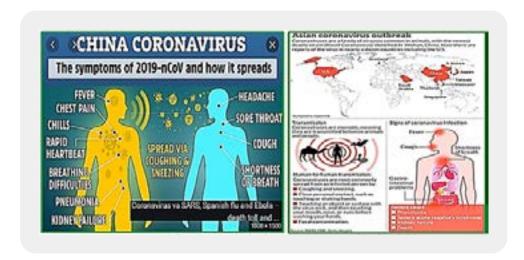
According to the model, people between the ages of 30 and 59 who have four or more risk points, as well as people aged 60 to 69 who have two or more risk points - are defined as part of the group exposed to the corona and branching. The same patients may be in severe condition up to 10 times higher than their other peers.

Until the government makes concrete decisions on the guidelines for population groups.



Current situation (15 April 2020) credit ref.[2]

Corona disease is out of control because they do not know in detail what it is. The doctors do their best as to their judgment, but there is no treatment for Corona. Quarantine and confirmed inter-cession are the only human path left to man. Many still do not realize the gravity of the situation, and perhaps it is good to do so. I hear a daughter whose mother passed away from Corona in a nursing home. For her, the situation is simple: do a test and give a cure and healer and come to Zion. But the test does not lead to the treatment. Because there is no cure or a cure, the test is a recommendation: those who are positive are better off hiding in their room, and with the help of the Creator, no aggravation will result in their death. This situation can be right for young people. In the elderly, there is probably one way and one ...



Coronavirus vs SARS, Spanish flu and Ebola – death toll and symptoms compared (credit ref. [3])

Three coronaviruses have crossed the species barrier to cause deadly pneumonia in humans since the beginning of the 21<sup>st</sup> century: severe acute respiratory syndrome coronavirus (SARS-CoV) [4] (Middle-East respiratory syndrome coronavirus [5] (MERS-CoV) and SARS-CoV-2, COVID 19 [6]). The viruses spread to all countries continents through air travel routes [7].

#### The Closure Period

As early as November 2019, a "mysterious disease" was detected in China. This information reported to the Israeli government, but nothing was done. This situation continued until the World Health Organization declared the disease. In December 2019.

The first patients arrived in Israel on flights from the east, and only then did the government begin to treat the plague. In all those 5 months from November to February, nothing was done to advance the coming of the disease. During this period, the epidemic raged in the East. And remember the ship with the thousands of passengers in Corona. Bringing patients to the country released from hospitalization in Japan has actually begun the era of Israeli corona patients.

While the initial antiviral activity of RBV against CoVs was not mutagenic, ExoN2 CoVs treated with 5-FU demonstrated both enhanced susceptibility during multiplication, as well as decreased specific infection, consistent with 5-fluorouracil (5-FU); Functions as a mutagen. Comparison of next-generation and next-generation sequences of 5 FU-treated SARS-CoV populations revealed a 16-fold increase in ExoN2 population mutations compared to ExoN +. Ninety percent of these mutations represented transitions A: G and U: C, which corresponds to the 5-FU combination during RNA synthesis. Together with our results, provide direct evidence that CoV ExoN activity provides a critical proofing function during virus replication. Furthermore, these studies identify ExoN as the first viral protein that differs from the RdRp that determines the susceptibility of RNA viruses to mutagens. Finally, our results show the importance of ExoN as a target for inhibition, suggesting that small molecule inhibitors of ExoN activity could potentially be Co-CoV therapy in combination with RBV or RNA polynomials [8-10].

Every day, more scientists are concluding that the 19 COVID virus is the product of a synthesis [11] from a laboratory analysis from China. The method known as CRISP allows integration of segments of the AIDS virus RNA into the RNA of the SARS virus. Indeed, French and British have uncovered such sections within the 19 / COVID virus; there is no non-artificial ("natural") way to produce this hybrid virus.

And now comes the hard question:

Did China commit a crime against humanity here and start a war with the West by "softening" with brutal biological weapons, or was there a lab worker's mistake?

The Americans announced in November a presidential ride that such activity is taking place in WUHAN labs, but their voices were not heard.

The devastating spread of the deadly coronoid virus on every continent - with the exception of Antarctica - sparked a social media conspiracy theory: What if the virus was really a biological weapon?

And, more specifically [12], was it an experimental weapon that accidentally ran away from a lab in China?

Or, as others say, is it a weapon that was overstated to stabilize the country's more than 1.4 billion people and the second-largest economy in the world, after the United States.

Both narratives are considered false, and probably part of a deliberate disinformation campaign, according to military experts

The Coronavirus, like any other parasite creature, needs a host to reproduce. Therefore, contagion in this disease will become imperative for the virus to multiply.

The human race has so far failed to curb the low-viral proliferation of this virus's family. Therefore, only one tactic remains as an escape route: and this is the physical quarantine of man to prevent the contagious devil from entering the body physically. In this way, The microbe can't deliver the genetic matter to another host, the next victim.

Only this is that can be done under the circumstances. Modern technology that servers humankind in its pursuit in combat with nature failed. Presently, no vaccination and no other remedy are in hand at present and are just a dream that should come true. It has been a generation of efforts trying to find a cure or experience for coronaviruses family. We are far from that goal, as is the east to the west. And it's not worth the delusion. Even if miraculously someone finds the "magic bullet", it will only be sufficient for the next wave of the Corona attack.

Physical isolation, "come into your room and close your door for you", as expressed by the prophet Isaiah, for almost a moment until rage passes, is a costly and destructive way but is the only one that saves a life.

There is no escape. We must continue to live with the threat of the future Corona and endeavor to exterminate it in every way.

#### Citizens Fulfilled their Duty and Stayed Home - Now the Real Problem Begins

Every evening, the Prime Minister and the Director-General of the Ministry of Health came up and explained how important it is to keep the guidelines - and the public listened. Very lead us out - here's where the problem begins.

And half a day into the incident and after nearly 30 days of one or another home closure, the suspicion that we are the public has been creeping up, but the authorities, led by the Ministry of Health, which insists on leading the crisis, are not part of their contract.

This is true: our situation is preferable to specific countries to the west, such as Italy, Spain, the United Kingdom, and the United States - a benefit derived in part from geographical data that plays in our favor, along with early identification of the danger and the rapid response. There is no dispute about that, credit comes to the prime minister and the health system chiefs. Who, if not Netanyahu could shape the right consciousness and convince the citizens to give up their livelihoods and life as we knew them and everything without protest, or need of enforcement.

Harvard Professors [13] focus on Blood vessels corruption as a result of COVID 19.

People with pre-existing heart disease are more at risk for severe cardiovascular and respiratory complications from COVID-19. Similarly, research has shown that influenza virus infection poses a more serious threat to people with heart disease than those without heart problems. Studies have also shown that heart attacks can actually be triggered by respiratory infections like the flu.

People with previously undiagnosed heart disease may present with quiet heart symptoms that were previously not obscured by the viral infection. In people with pre-existing cardiovascular obstruction, infection, fever, and inflammation can undermine the stability of asymptomatic lipid plaque that previously existed in the heart vessels. Heat and inflammation also make the blood more prone to blood clotting, and at the same time, they interfere with the body's ability to dissolve clots – a punch of two similar to gasoline injection on smelly coals

#### Israel is Facing a Dilemma as a Result of the Emergence of Coronavirus

The lock-in time measure saved lives and prevented the collapse of the health care system, but Israel remains extremely passive on two critical issues; Israelis linger in colon cancer fears and show signs of police state mentality

Israel's entry strategy into the virus crisis was more reasoned and coherent than its exit strategy. Quick steps taken at the beginning of March, in particular, decide to shut down most Israelis.

In Israel, as in some of the most affected European countries, the bride's trend now appears. The number of ventilator patients has almost stabilized; The number of deaths has not increased dramatically; The number of those infected has just not been known, as there are still insufficient tests. But contrary to some expectations, there is no symmetry between the rise and fall of infection and mortality rates. The virus has burst with tremendous intensity, the containment will be long - and may include new outbreaks.

In Israel, Prof. Ran Balitzer, Director of Health Policy Planning at the General Health Fund and Advisor to the Epidemic of Health, wrote this week in Haaretz, "Some Israelis hold on to the hope that after Passover we will return to normal life ... This is not the case, and it must be very clear."

Balicer is in favor of locking it down, but makes it clear that it is a calculated risk. The economy must be reactivated with one eye on the situation in hospitals along with maintaining a confidence interval that will prevent patients from overloading ventilators.

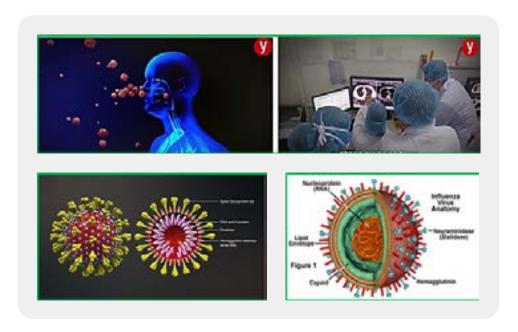
#### Coronavirus Disease and Influenza

"Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China" - January 24, 2020 by Chaolin Huang, et al.

http://www.thelancet-press.com/embargo/coronavirus1.pdf

The Lancet Corona Paper [14]

The distinguished professors who compare the corona to the flu: the state of the flu is preferable. There is a remedy, a medicine (Tamiflu) and there is a vaccine. However, every year, masses of people die from the flu. Because mostly not vaccinated. Corona has currently no cure (testing the anti-Ebola candidate Remdesivir) Conducting experiments towards a vaccine and the virus mutates and spreads and migrates through the sewage and fecal system. Don't panic. Just be aware and follow the instructions and most importantly. Do not under-estimate it [15-17].



Drawing of the Coronavirus and Flu virus (credit ref. [1,18])

Different types of influenza virus have been identified, referred to as A, B and C. Together, these viruses, which distinguish each other with antigen, form their own family of viruses, Orthomyxoviridae. Most influenza cases, especially those that occur in epidemics or pandemics, are caused by the influenza A virus that can affect a variety of animal species, but the B virus, which is usually found only in humans, is responsible for many locals. Outbreaks. The C flu virus is morphologically and genetically different from the other two viruses and generally monosymptomatic, so it has little medical concern. [2]

Coronavirus outbreak: "it's almost certain to mutate, [19] this is the nature of these things"





GOING VIRAL Coronavirus vs SARS, Spanish flu and Ebola – death toll and symptoms compared [20]

World Health Organization chief Tadros Adenum Gabrius said Tuesday during a briefing, citing other anxieties that have caused smaller outbreaks. "This virus is not SARS, it is not MERS and it is not the flu. "It's a unique virus with unique characteristics."

By differentiating between the viruses, Tadros sought to take global action against the new bacteria. He and other WHO officials have urged governments to deal with the virus to implement public health measures that have been shown to reduce viral spread, such as isolating infected people, following those who have come into contact with cases to check if they are developing disease, and suspending activities to bring in many people [21].

### Here's Why it Takes so Long to Develop a Vaccine for the New Coron-Coronavirus

February 17, 2020

The World Health Organization said this week it may take 18 months for the Koronov Virus to be available to the public [22].

Let's explore why, even with a global effort, it can take a long time.

China has publicly shared the full RNA sequence of the virus - now known as SARS-CoV-2 and not COVID-19, which refers to the disease itself - in the first half of January.

This effort began with efforts to develop vaccines around the world, including at the University of Queensland and institutions in the United States and Europe.

In late January, the virus was successfully grown outside China for the first time by the Doherty Institute in Melbourne, a very important step. For the first time, researchers in other countries had access to a live sample of the virus.

Using this sample, researchers at the Geilong CSIRO High Container Laboratory (Australian Animal Health Laboratory) were able to understand the characteristics of the virus, another crucial step in the global vaccine development effort.

Historically, it took two to five years to develop. But in a global effort and learning from past efforts to develop anti-heart virus vaccines, researchers may develop a vaccine in a much shorter time.

World Bank announces up to \$12 billion in immediate funds for coronavirus

The announcement underscored escalating concern about the economic and human impact of the virus.

The World Bank on Tuesday announced initial \$ 12 billion in immediate funds to help countries coping with the health and economic effects of the rapidly spreading coronavirus virus from China to about 80 countries [23].

World Bank President David Malapas said there are still "many unknowns" about the rapidly spreading virus and may require "much more" help, but he declined to elaborate

Health Ministry Asking PM to Ban Gatherings Over 2,500

According to a report on News 12, [24] the Israeli health ministry will ask the prime minister to ban gatherings and events of more than 2,500 people. This may be the result of a health ministry discovery on Wednesday that the teenager-who contracted the coronavirus from an employee of the Red Pirate Purim store in Givat Brenner who had returned from Italy-attended the Tel Aviv soccer derby match a week ago at Bloomfield Stadium.

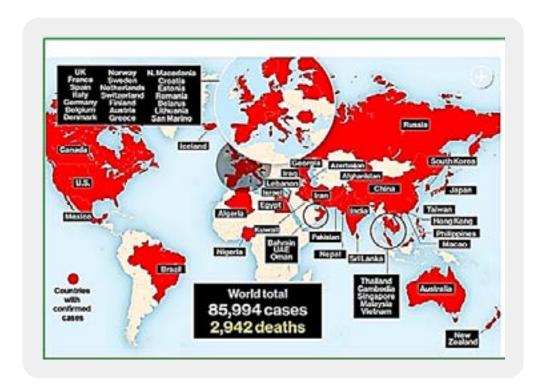
The health ministry called on anyone who attended the same Monday, February 24, game in the Gate 8 seats, to enter home quarantine immediately.

New coronavirus cases jump sharply in Europe, with Italy worst hit

The new virus infections occurred dramatically on Sunday, with Italy reporting hundreds of new cases and five more deaths. The number of approved cases has also jumped in France, Germany and the United Kingdom, with the Czech Republic reporting its first case.

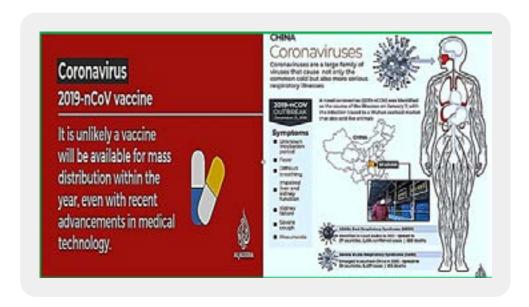
As the disease continued to spread rapidly and governments introduced emergency measures to halt the progress of the growing epidemic, outbreaks in Iran and South Korea worsened. The United States also reported two new infections, one in Chicago and the other in Rhode Island. They mark the first case of the eastern state.

In Italy, confirmed infections rose 40% in 24 hours to 1,576, with the death toll currently at 34. In Germany, the number of people infected has almost doubled to 129 on Sunday, while France's total was up 100 - up from 38 on Friday - Nine of them are in serious condition. Iran, meanwhile, has increased the death toll from 43 to 54, as the number of confirmed infections has risen by more than half to 978, amid ongoing concerns that official data does not yet reflect the full extent of the outbreak there [25].



Coronavirus spread planet earth

## How Deadly is the New Coronavirus? Nor Remedy, no Vaccine



COVID 19 symptoms and sites of attack of the human body

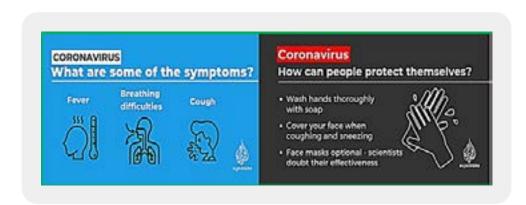
Scientists [26] still cannot say for sure what the death rate of the Koronov virus is, as they are not sure how many people have contracted the disease. But they do have some estimates, and there is broad agreement that COVID-19 is most dangerous for elderly patients and those with an existing health burden. On Tuesday (March 5) Tadros Adnum Jabrasos, CEO of the World Health Organization, said during a press conference that 3.4% of patients reporting COVID-19 died worldwide. In a Chinese analysis of more than 72,000 case records. 2.3% Patients over the age of 80 had an alarmingly high mortality rate of 14,896. Patients aged 70-79 years are worse at 8% pregnancy rate. In Italy, where the number of those killed was 52, March 4, the fatalities were all among people over 60.



Israelies in corona crisis and gathering at MECCA Saudi Arabia (credit ref. [27,28])

What can now be done about the virus is the prevention of infection. The situation is not similar to the flu. Influenza has a cure: Tamiflu, and a vaccine. In Corona case there is no remedy and no vaccine. Only prevention and retention can help. Therefore all quarantines. Today, 50,000 (yes, fifty thousand) Israelis are already in isolation mainly in their homes and can only be done to prevent the infection. The virus in its current configuration causes 5% primary mortality for the elderly and slightly weaker children. Please, don't underestimate it and it's not the flu!!!!

Contrary to the opinion of the old professor.



CORONAVIRUS behaviour of humans the BASICS

Governments around the world are mingling to contain the spread of COVID-19, which is growing worldwide even as the transmission in China, where the virus originated late last year, continues to show signs of slowing in the country.

There are more than 93,000 cases worldwide - the vast majority in China - but as deaths are reported in Italy.

# Purim Celebrations Canceled for Fear of Corona: "Stressed, do not know What will Happen"

About 2,300 students are already housed in solitary confinement, which included Brenner High School students - after a ninth-grade student contracted the Corona virus. "They put us at unnecessary risk," one of them said. Another expressed disappointment at the fact that "you have to stay at home for a long time." Holon has abolished the traditional Adelaide: "feeling missed".

Following the spread of the virus in Europe, the Israeli Ministry of Health [29] also ordered home isolation for those returning from Germany, Switzerland, France, Spain and Austria for 14 days. The guideline is also valid for those who have returned from the same countries in the past two weeks - affecting tens of thousands. Under the management of the Israeli airline, the implications of the new measures are being explored.

The Palestinian Authority will ban tourists from entering its territory for fear of distributing Corona

The Palestinian News Agency reported four first sticks at a hotel near Bethlehem. The Palestinian Ministry of Health said they were awaiting the results of their tests and that in the meantime all mosques and churches in Bethlehem would be closed for two weeks [30].

Fears of a prison outbreak: "Like dozens of Corona ships"

IPS chief medical officer told Ynet about preparedness to prevent prison cells: Reducing civilian entry and visits - to take place behind partitions. The first case will completely change the reality - we are also prepared to isolate an entire facility, "he said.

Executives discuss the consequences of the Corona: "GDP could be hit by more than 1%" Chief economist Shira Greenberg presented two scenarios in the discussion - one pointing to a possible 0.2% fall in GDP as a result of the Corona and the other about more than 1%. She said the corona's effects would be more significant compared to the SARS virus. In the discussion we will discuss, among other things, the issue of compensation for the Corona victims [31].

## World Health Organization is Expected to Announce: Corona Epidemic - Pandemic. How will this Affect Us?

The US Centers for Disease Control reported today that the global corona epidemic is almost completely in line with the definition of pandemic. It is estimated that the World Health Organization will have no choice but to announce in the coming days that this is indeed a pandemic. These are the implications of the dramatic announcement [32].

#### **Concluding Remarks**

Do not ease head and find tricks with the corona. If you can avoid it- stay home and work remotely through the media. Because people don't know much about the virus and its severity. This is not the flu, !!! It is already clear. And winning prayer can only help. Science is quite embarrassed, and especially medicine, in the face of this virus. There are hints, but it is very necessary to "help from heavan" to find remedyl for proper treatment. I hear now that the Italian virus is a more violent strain of the coronavirus that means more% dead. The Israeli prime minister announces global plague.

And in fact all European countries, including Central Europe and the Balkans are infected with Coronavirus. In Israel, the trend is to "paralyze" Israel. Education and public transport appear to be halted in the coming days.

What can be done now about the virus is the prevention of infection. The situation is not similar to the flu. Influenza has a cure: Tamiflu, and a vaccine. In Coronavirus case there is no medicine and no vaccine. Only prevention and retention can help. Therefore all quarantines. Today, 50,000 (yes, at least fifty thousand) Israelis are already in isolation, mainly in their homes, and such measures can only be taken to prevent the broad public viral infection. The virus in its current configuration, causes 5% primary mortality for the elderly and slightly disadvantaged children. Please, don't underestimate it and it's not the flu!!!!

Contrary to the opinion of the veteran medicine professor.

Once again the distinguished professor is seen not saying everything. Well. Much of the flu is known about the disease and the viruses. There are medicines and there are vaccines. Those who do not vaccinate have their tendency to become ill and even die of high flu.

The corona virus, is unknown. But in the coronavirus illness, there is no cure and no vaccine. Therefore, caution is required. Mr. Professor, in the US, has allocated - with the World Bank, about \$ 20 billion (!!) to investigate the virus. "Pros" say that within 18 to 24 months in case of real success t will be a suitable vaccine. There is no cure. Scientists are trying to succeed. Help, dear sir and it also helps with the flu, but not only that. Gentlemen, the Corona illness is not the flu. And in contrast to this flu is may broome an ongoing trouble. (In the present form).

Because the virus, which is mutated (genetic change) strikes again, in the new costume.

Everything is still unknown and uncertain. In Israel many thousands have already been quarantined. No dead yet but "and another vision for the time" as the prophet Habakkuk says. We don't know To those professors who compare the corona to the flu: the state of the flu is preferable. There is a medicine (Tamiflu) and there is a vaccine. However, every year, masses of people die from the flu. Because Corona is mostly not vaccinated .... Corona has no cure (in Remedsivir experiments) and no vaccine and virus mutate and spread and migrate through the sewage and fecal system. Don't panic. Just have to be aware and follow the instructions and most importantly. Not relieve headache / I hear the professor who recommends going into proportions because oh know the future will die another 1000 and it will end like a flu Any news: Effect never ends and there is a vaccine and a cure. Corona has nothing, there are "oil marks" REMDESIVIR? Let's hope for the best. The virus probably also undergoes mutations (changes).

TV reporting now that tonight, 42 Italians died from the Coronavirus illness. Britain has now 1 mortality, and all of Europe is infested with the virus. The USA will soon be painted with "deep red", and a world pandemic is to be announced soon by the WHO. No more flights to Israel by the European LUFTHANSA aggregate. Not so nice. Here is the list of countries that upon arrival to Israel, Passengers Should enter 14 days of quarantine:

Germany, France, Spain, Italy, Switzerland, Andora, Austria, San-Marino, Iran, Lebanon, Iraq, Seria, China, South-Korea, Maccau, Hong-Kong, Japan, Thailand, Singapore. Greece. Slovenia. United Kingdom, Holland, Belgium, Luxemburg.

#### **Concluding Words**

There are many kinds of conspiracy theories about various coronaviruses. Reminiscent of AIDS. But apparently, the loss must be sought elsewhere and not under the flashlight.

Global warming causes icebergs and frozen earth to enter and release many things that have been imprisoned for millions of years in this frozen medium. There is evidence that prehistoric anthrax bacteria have been released in Siberia and various viruses. Is the coronaviruses family now attacking the earth also released recently? There's no telling.

This hypothesis is uncomfortable for politicians and their fellow tycoons and oligarchs. This because it points out global warming. Which has become a dominant phenomenon in recent years? Global warming is, in large part, the result of massive industrialization and exploitation of the planet's natural treasures.

It should be noted that Japan is treated differently to Corona. While our politicians have taken over the matter and are saturated with political contempt only, Japan is urging leaders to leave the treatment of the virus to scientists and for the politicians to deal only with politics, but they are Japanese, probably not "you chose us." But I think they are on the right pathway.

We keep doing new crap for mornings. Not enough tests are carried out. The discipline in Ben Gurion airport does not exist, and our prime minister and his clan celebrate.

Coronavis virus in Israel: death toll increases to 103 as curfew is extended at hotspots in Jerusalem

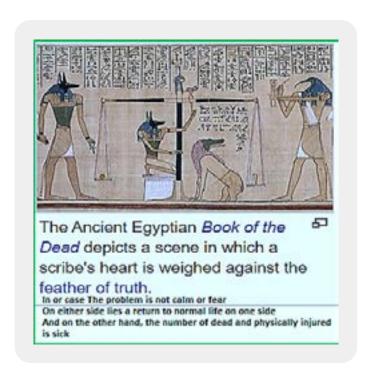
Gov't confirms that curfew extension at Coronio virus hotspots in Jerusalem Netanyahu is ordering to stop all flights to Israel until all passengers arriving can be closed. Wearing masks in public is now a must.

In the Kingdom of Jordan, the day after the Coronavirus virus may be no less dangerous than the pandemic Despite the devastating effects on the economy and the poor in the country, the emergency regulations appear to have curbed the outbreak of the Corn virus. But many fear that the crisis may be used to stop the resistance.

So far, the world has been fighting for the prevention of infection with the horrible disease COVID 19. Practically very little has been done to eliminate the causes of the disease, except to prevent the infection by isolation and closure that could prevent the virus from spreading. This situation is especially fragile, and since with the removal of the closure and a "return to routine" that prevents fundamentally just economic considerations, the beast will burst again because isolation is a border measure. The reduction in the casualty numbers is artificial and does not harm the pathogens themselves. Just put aside the issue of CV- SARS 2 virus breeding for a moment, but we must not forget. The virus Coming into a coma and even stagnation, and may burst again.

#### Isolation is an Administrative Step. Please Don't Forget this.

And there is a reasonable fear that whatever we buy in the misery of the last few weeks will also go down and encourage the spread of the disease. And with "new" and "enhanced" varieties of the viral virus.



The problem is not calm or fear (Hysteria).

In our case, the dilemma is: On either side lies a return to a healthy and normal life on one side. And on the other, the number of dead and physically injured is sick. The circumstances are that only administrative measures saved the world from a disaster.

So far, the world has been fighting for prevention of infection with the horrible disease COVID 19. In fact, nothing has been done to eliminate the causes of the disease, except to prevent the infection by isolation and closure that could prevent the virus from spreading. This situation is especially fragile and since with the removal of the closure and a "return to routine" that prevents fundamentally just economic considerations, the breast will burst again because isolation is a border measure. The reduction in the casualty numbers is artificial and does not actually harm the pathogens themselves. Just put aside the issue of CV SARS 2 virus breeding for a moment, but we must not forget. The virus Coming into a coma and even stagnation, and may burst again.

Isolation is an administrative step. Please don't forget this.

And there is a reasonable fear that whatever we buy in the misery of the last few weeks will also go down and encourage the spread of the disease. And with "new" and "enhanced" varieties of the viral virus.

#### Professor Les againt Israel Government [33]

"Some say they are now dying less because of the closure. You have to understand - closure is definitely slowing down, and if the health system is really unable to deal with the virus, it's good. It will infect, more slowly. Because the virus is infecting at a very fast rate what happened in Europe is that it infects everyone it can infect, it has peaked and now it is falling.

Les did not stop and made it clear that his closure policy was his default: "Tomorrow morning I would open everything except three things. First, nursing homes - barbed wire and shag as in oral and telepathic disease, and certificate - no one enters a nursing home It is not clean. Why didn't they do it two months ago? Why did they just tell fiction? "

"Second, keep the medical staff," Les continued. "Good conditions should be given to them, and not just in hospitals, but also in nursing homes. And the third thing - voluntarism. A risk population like myself needs to maintain itself." When asked if he meets the grandchildren made it clear: "Of course not, I am a law abiding citizen, I abide by every regulation."

### The Comparison Between the INFLUENZA of the Generations and COVID 19

The comparison between the influence of the generations and COVID 19 is not on the same plane. Although the influenza of her ages and the various viruses that make her go wild is under control. It is not declared a worldwide epidemic because vaccines for the multiple strains exist and also a drug that prevents TAMIFLU infection. The dead numbers can be downloaded from it if the population is required by law to be vaccinated.

The current corona epidemic is different: no vaccine and no cure, even to prevent infection.

The biochemistry and biology of influenza viruses and human responses have been investigated and are known to detail. With the corona disease, it is different. It is characterized in the groping in the dark. What is available at present are studies of SARS disease - MERS.

But these are the only ones that form the basis for understanding illness - a nurse: the 19th COVID. At present, the progress of infection in the current Coronavirus has slowed down COSTARS 2. But the following can only be assessed in the estimator's imagination.

So far, the world has been fighting for the prevention of infection with the horrible disease COVID 19. Only little was done to eliminate the causes of the disease, except to prevent the infection by isolation and closure that could prevent the virus from spreading. This situation is especially fragile, and since with the removal of the closure and a "return to routine" that prevents fundamentally just economic considerations, the breast will burst again because isolation is a border measure. The reduction in the casualty numbers is artificial and does not harm the pathogens themselves. Just put aside the issue of CV SARS virus 2 for a moment, but we must not forget. The virus coming into a coma and even stagnation and may burst again. Isolation is an administrative step. Please don't forget this. And there is a reasonable fear that whatever we buy in the misery of the last few weeks will also go down and encourage the spread of the disease. And with "new" and "enhanced" varieties of the virus.

I hear the interviewer ask an important professor "Are the messages that the human immune system," herd vaccine "disappointing?

The professor has no clear answer. But he claims these are false reports (Korea [34], UK, Japan and Germany) and the immune system does contain the virus. The interviewer is a doctor of medicine. There was nothing wrong. But what is its effectiveness? Here he did not discover and remained silent.

Well. The release of human factors from the human immune system is known to be virus dependent. For example, the herpes is released and causes "shingles". It takes time. In many cases many years. And chickenpox is also released from the quarantine of its antibody, and other diseases.

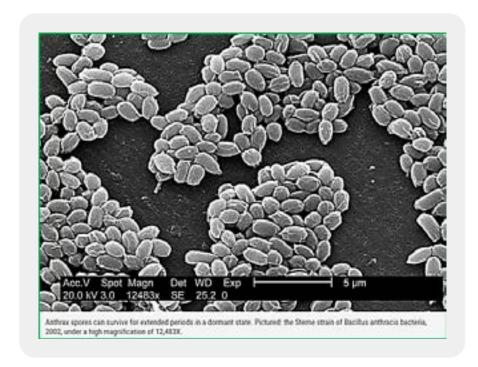
Our virus is also released. It is said that it takes time, about a month. Well, such a situation does not endanger the lives of an entire people. Here a decision must be made on a factual basis. Not imaginary based on fraud. On administrative prevention and closures in the home under a valid order.

Humankind has no choice because it, like the virus, must survive and advance in the first commandment: pro and multiply and fill the land. Despite all the difficulties and dangers.

## Will the Next Great Pandemic also come from Climate Change?

A group of scientists says it made a terrible discovery deep in the world's ice caps - old viruses.

They say that while the glaciers continue to melt, which is mainly due to the warming of the earth's atmosphere, the deadly viruses could be released.



## China: Government Restricts Publication of Studies on the Origin of the Coronavirus

After the many publications claiming that the coronavirus broke out in Wuhan city of China, the Chinese government decided to limit the publication of academic research into the origin of the corona virus.

This is in line with the Chinese government's directive and the messages of two Chinese universities - already removed from the internet at this moment.

Over the past few weeks, China appears to be recovering and returning to normal following the outbreak of the Corona virus, for the first time in Wuhan City. Now, the Chinese authorities are conducting a new policy whereby all academic research on the COVID 19 will be checked for further scrutiny and will need to be approved by central government officials before it is published - according to two university posts. In the country - already deleted.

In 2015, researchers from the United States and China investigated a glacier on China's northwestern Tibetan plateau by drilling 50m into its core. No one would be shocked to hear that there is a wide range of problems related to climate change. From extreme weather events to melting ice domes and extinction of animal species - they have all been well-researched and have fallen somewhere in the 'reasonable' range to 'very likely'.' Perhaps not as noticeable is the sudden rise of the Coronavirus and the flu, as a direct result of climate change. How does that even work?

Except for coronaviruses that are now a threat to humanity, other microbes, anthrax bacteria, are everywhere. The anthrax bacterium, for example, is one of the best-known diseases and souls known in modern times, but its origins are rooted back in human prehistory. We learned to live with it, so will we learn how to live with the coronaviruses.

Prof. Grotto: "We were quite successful in the containment phase."

Deputy Health Secretary says optimistically in an interview with Ynet studio: "We are in stable condition, it is important not to miss.

## Citizens Fulfilled their Duty and Stayed Home - now the Real Problem Begins

Every evening, the Prime Minister and the Director General of the Ministry of Health came up and explained how important it is to keep the guidelines - and the public listened. Very lead us out - here's where the problem begins.

And half a day into the incident and after nearly 30 days of one or another home closure, the suspicion that we are the public has been creeping up, but the authorities, led by the Ministry of Health, which insists on leading the crisis, are not part of their contract.

This is true: our situation is preferable to certain countries to the west, such as Italy, Spain, Israel and the United Kingdom, and the United States - a benefit derived in part from geographical data that plays in our favor, along with early identification of the danger and the rapid response. There is no dispute about that, credit comes to the prime minister and the health system chiefs. Who if not Netanyahu could shape the right consciousness and convince the citizens to give up their livelihoods and life as we knew them and everything without protest, or need of enforcement.

## Chilling Record: Mass Grave for Corona Victims in New York's "Dead Island."

The number of victims of the Coronavirus in New York is increasing by the hundreds every day - and the city has difficulty coping with the amount of dead. As a result, more and more bodies are being transported to a mass grave buried on Hart Island - to which more and more coffins of the dead are put without family or relatives. Due to the distress in the cemeteries, the mayor of New York proposes to bury family members on the island - and to transfer them to New York after the crisis.

#### Obesity Epidemic before You:

One tactic is available in the coronaviruses (SARS 2 or COIVD 19, SARS, MERS) war: the personal confinement to avoid contagion. The long days when educational settings are disabled and children are closed in homes can lead to the development of a new epidemic - the one after the Corona - the obesity epidemic. Scientists in the United States warn that the situation in which many children are in their homes and inactive as they used to, will lead to severe exacerbation of the obesity problem among children and youth.

As entire countries lockdown, factories close, and international air travel stops, the COVID-19 global virus epidemic will result in a sharp reduction in global carbon emissions - as has already happened in China. While this decline will almost certainly be temporary, it is worth asking whether the drastic coronavirus response in the world can provide valuable lessons for climate action. Could a low-carbon future of remote work and reduced flight be in the works?

Here is a mini-summary of news coverage so far, examining the links between the Coronavirus and climate change.

The permanently frozen earth that covers much of the Arctic is home to growing microbial communities. For centuries they lay dormant, barely active or completely suspended, and existed on tiny pockets of water pushed between the ice. With the Arctic warming two to five times the global average, these pockets become pools; Rivers, rivers; And puddles, pools. The Arctic is awakening, and the microscopic organisms embedded in the country are coming back to life.

Scientists in Germany have agreed that the climate is warming and the butterfly is thawing. But they wanted to know what all this meant to humans and the future of the infectious disease. The frozen soil that covers much of the Arctic is home to growing microbial communities. For centuries they lay dormant, barely active or completely suspended, and existed on tiny pockets of water pushed between the ice. With the Arctic warming two to five times the global average, these pockets become pools; Rivers, rivers; And puddles, pools. The Arctic is awakening, and the microscopic organisms embedded in the country are coming back to life.

Scientists in Germany have agreed that the climate is warming and the butterfly is thawing. But they wanted to know what all this meant to humans and the future of the infectious disease. Current nature populations are facing new interactions because of its reappearance of Bacteria and ancient viruses. These risks are due to its reappearance Of pathogens Held in laboratories or pathogens generators that are kept in the inverted paprika Available after thawing due to climate change.

We focus here on the effects of Such a remake natural host populations based on evolutionary theory of virulence And long term Studies that study host-pathogen adaptations. Pathogens tend to be locally and temporally tailored to their commonalities Hosts, but when pathogens From a different environment or time enter the host community, The extent to which a new host-pathogen interaction is a specific threat depends on Genotypic associations, the time lag between host and pathogen, and interactions with native or recent species and pathogenic hosts. Some insights can be, Accepted long term Studies using an ecological approach to resurrection. These are long term Time-shift studies Experiments are essential to gain insight into the subject mechanisms underlying host-pathogen co-development in ecological and temporal numbers. Scales. Because pathogens in the past and their host (s) are compatible can vary in infection and Sensitivity, strong reciprocal selective pressures can be caused by the pathogen.

These strong selective pressures usually result in an arms race, but they do not Inevitably cause an increase in infection over time. Human health can also be affected By pathogens that are resurrected as most of the emerging infectious diseases they are zoonoses, which are infectious diseases that naturally come from animal populations Transmitted to humans. The sanitary risk associated with the onset of pathogen

Different environments (spatial or temporal) depends on a combination of socio-economic, environmental, and ecological factors affecting the virus or pathogenic potential of microorganisms And their ability to infect susceptible human populations.

#### Climate Change has Lessons for Fighting the Coronavirus

Procrastination, short-term, and scientific denial are the hallmarks of our inaction on government change but the Coronavirus provides us with an opportunity to kick those long-standing habits.

"Will the effort to revive the global economy after the epidemic accelerate the emission of planet-warming gases, rather than prevent climate? It depends on whether the world's largest economies, such as China and the United States, are taking advantage of this moment to enact green growth policies or continue to fuel fossil fuel industries."

#### **Final Words**

There are many kinds of conspiracy theories about various coronaviruses. Reminiscent of AIDS. But apparently, the loss must be sought elsewhere and not under the flashlight.

Global warming causes icebergs and frozen earth to enter and release many things that have been imprisoned for millions of years in this frozen medium. There is evidence that prehistoric anthrax bacteria have been released in Siberia and various viruses. Is the coronaviruses family now attacking the earth also released recently? There's no telling.

This hypothesis is uncomfortable for politicians and their fellow tycoons and oligarchs. This because it points out global warming. Which has become a dominant phenomenon in recent years? Global warming is, in large part, the result of massive industrialization and exploitation of the planet's natural treasures.

It should be noted that Japan is treated differently to Corona. While our politicians have taken over the matter and are saturated with political contempt only, Japan is urging leaders to leave the treatment of the virus to scientists and for the politicians to deal only with politics, but they are Japanese, probably not "you chose us." But I think they are on the right pathway.

We keep doing new crap for mornings. Not enough tests are carried out. The discipline in Ben Gurion airport does not exist, and our prime minister and his clan celebrate.

Coronavis virus in Israel: death toll increases as curfew is extended at hotspots in Jerusalem

Gov't confirms that curfew extension at Coronio virus hotspots in Jerusalem Netanyahu is ordering to stop all flights to Israel until all passengers arriving can be closed. Wearing masks in public is now a must.

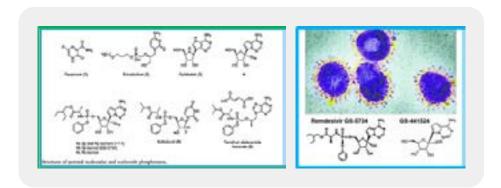
Not to be forgotten: With all the friendship, China is a country under totalitarian rule. Some believe that the current coronavirus is the result of SCRIP synthesis [35] for genome editing and synthesis.

Indeed, there are other opinions; for example, the release of archaic glacial viruses.



And Siberian permafrost roasts melted due to global warming [36].

But the restrictions imposed by the Chinese government these days and the censorship of the scientific articles indicate about a thousand witnesses that there is no smoke without fire.



## Remdsevir, Chloroquine, Lopinavir, Ribavirin, Favipiravir

Experimental Agents or a cure for COIVD 19?

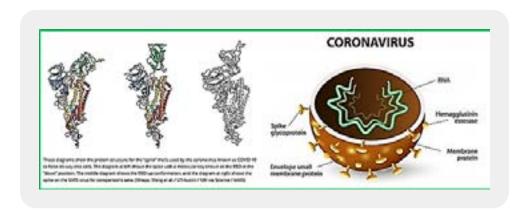
Coronaviruses (Co Vs) affecting upper respiratory tract were first identified in humans in mid-1960 [37]. In late 2002, there was emergence of a life threatening CoV of atypical pneumonia, named severe acute respiratory syndrome CoV (SARSCoV). Considering the high similarity between SARS-CoV and SARS-CoV2, it remains to make clear whether the potential invasion of SARS-CoV2 is partially responsible for the acute respiratory failure of patients with COVID-19. Awareness of this may have a guiding significance for the prevention and treatment of the SARS-CoV-2-induced respiratory failure.

#### FDA Approves First Rapid COVID-19 Test [38] March 21, 2020 6:38 PM ET

unclear. Severe acute respiratory syndrome – associated coronavirus (SARS-CoV) was introduced to the United States through air travel. Although the risk of SARS-CoV transmission within aircraft cabins has been addressed by several studies, the magnitude of the risk remains [39].

The FDA has approved the first rapid COVID-19 test to the treatment point, which can bring results in less than an hour.

Cepheid, a Silicon Valley diagnostics company, released the statement yesterday (Saturday) saying it has received emergency approval from the government to use the test.



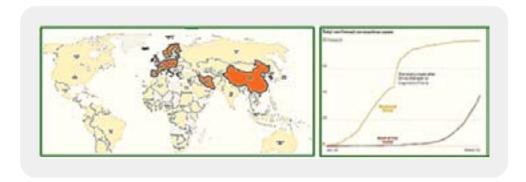
Coronavirus and spikes

Corona virus ans spikesScientists create atomic-scale map of coronavirus' deadly weapon, pointing out a path to fighting it [40]

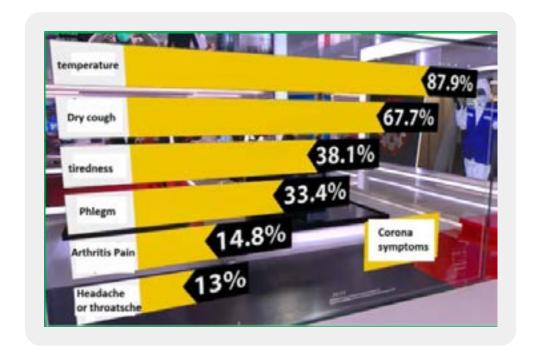
## More than 167,000 have Fallen in Corona in the World. The Complete Data

While China and South Korea are trying to recover, the focus of the spread of the Corona virus has shifted to Italy, Spain and Iran, where the infectious records are breaking. The highest mortality rate (7.3%) was recorded in Italy - the largest of the countries with thousands of patients 16.03.20, 00:44

The Coronavirus continues to spread around the world at an alarming rate, and as of Sunday evening, more than 167,000 people were infected in 156 countries. The death toll worldwide is more than 6,450



Spread of the COVID 19 disease, from china to europe



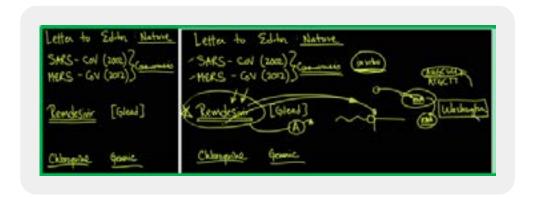
The Main Spread of COIVD worldwide 17 March 2020 (credit ref,[41])

people. In Israel, too, there was an increase, and the number of patients last night was 213, compared with exactly 39 a week ago.

## A Cure for the Chinese Corona Virus?[42,43]

The drug prepared in California's Gilead Laboratories to fight your EBOLA virus and failed to do so turned out to be effective against the current Chinese corona virus. The Chinese health authorities have applied for this material. The substance blocks the synthesis of RNA in the cells of the cells. Already rescued one patient in the US from death and brought him to recovery. The material was one of hundreds of stonemasons that failed to reach their original purpose [44].

Remdesivir (6) [45] Discovered by Gilead (California) is a nucleotide surrogate [46,47]. Remdesivir blocks RNA synthesis in the cell.



Remdesivir mimics Adenosine and blocks viral RNAS synthesis in the infected cell.

The Agents Remdesivir and chloroquine effectively inhibit the recently emerged coronavirus (2019-nCoV) in vitro [48].

Findings indicate that the agents Remdesivir and chloroquine are biologically effective in the control of 2019-nCoV infection *in vitro*. Since these compounds have been used in human patients with a safety track record and shown to be effective against various ailments, we suggest that they should be assessed in human patients suffering from the novel coronavirus disease.



World air traffic

#### Remdesivir

Health officials from WHO have noted that Gilead's remdesivir has demonstrated efficacy in treating the coronavirus infection.

Remdesivir is a broad-spectrum antiviral drug originally designed to target Ebola. Researchers have found that remdesivir is highly effective at fighting the novel coronavirus in . This treatment is not yet approved in humans, but two clinical trials for this drug have been implemented in China. One clinical trial was recently also approved by the FDA in the United States.

#### Chloroquine

WASHINGTON - The US is fast-tracking the anti-malarial drug chloroquine for use as a treatment against the new coronavirus, US President Donald Trump said Thursday.

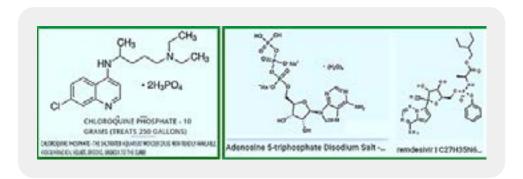
"We're going to be able to make that drug available almost immediately, and that's where the FDA [Food and Drug Administration] has been so great," Trump told reporters [49].

Doctors can also use a number of different therapies to limit the immune system's response to viruses, like fever and inflammation, which can sometimes cause more damage to a patient than the virus itself. Anti-inflammatory drugs like corticosteroids and chloroquine are often used to lessen these symptoms. Chloroquine, a widely-used anti-malarial and autoimmune disease drug, has recently been reported as a potential broadspectrum antiviral drug [8,9 in 10]. Chloroquine is known to block virus infection by increasing endosomal pH required for virus/ cell fusion, as well as interfering with the glycosylation of cellular receptors of SARS-CoV [50].

"Chloroquine, a relatively safe, effective and cheap drug used for treating many human diseases including malaria, amoebiosis and human immunodeficiency virus is effective in inhibiting the infection and spread of SARS CoV in cell culture. The fact that the drug has significant inhibitory antiviral effect when the susceptible cells were treated either prior to or after infection suggests a possible prophylactic and therapeutic use".

Chloroquine is a drug that's used to fight malaria and autoimmune diseases. It's been in use for more than 70 years Trusted Source and is considered safe.

Researchers have discovered that this drug is effective at fighting the SARS-CoV-2 virus in studies done in test tubes. At least 10 clinical trialsTrusted Source are currently looking at the potential use of chloroquine as an option for combating the novel coronavirus.



Gilead Sciences has partnered with Chinese health authorities to conduct a randomized Phase III clinical trial to evaluate the use of the antiviral drug candidate study (GS-5734) for the potential treatment of corona virus.

According to a publication published in the New England Journal of Medicine (NEJM), the drug was found to show encouraging results when given to the first U.S. patient infected with the Wuhan virus.

The US patient was re-treated for compassion on the seventh day of illness and his clinical condition was confirmed to improve on day eight.

In Beijing, China, the new placebo-controlled third phase trial of Gilad's drug will be performed at Friendship Hospital. The study should enroll 270 patients with mild to moderate pneumonia caused by the coronoid virus.

#### Lopinavir

The severe acute respiratory syndrome (SARS, COIVD 19) is a life-threatening viral infection caused by a positive, single stranded RNA virus from the enveloped coronavirus family. Associated with fever, cough, and respiratory complications, the illness causes more than 15% mortality worldwide. So far, there is no remedy for the illness except supportive treatments. However, the main viral proteinase has recently been regarded as a suitable target for drug design against SARS infection due to its vital role in polyproteins processing necessary for coronavirus reproduction.

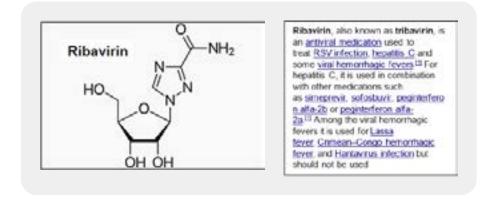
Lopinavir; A Potent Drug against Coronavirus Infection: Insight from Molecular Docking Study

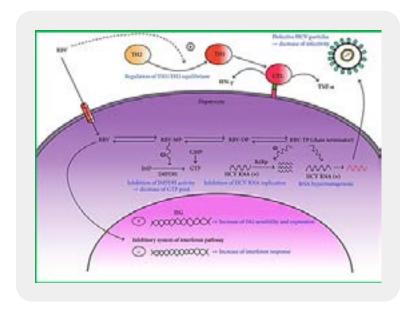
Background: The severe acute respiratory syndrome (SARS) is a life threatening viral infection caused by a positive, single stranded RNA virus from the enveloped coronaviruse family. Associated with fever, cough, and respiratory complications, the illness causes more than 15% mortality worldwide. So far, there is no remedy for the illness except supportive treatments. However, the main viral proteinase has recently been regarded as a suitable target for drug design against SARS infection due to its vital role in polyproteins processing necessary for coronavirus reproduction [51].

#### Ribavirin

Objectives: The present in silico study was designed to evaluate the effects of anti HIV-1 proteases inhibitors, approved for clinical applications by US FDA, on SARS proteinase inhibition.

The potential for CoVs to cause significant human disease is well demonstrated, with six known HCoVs-HKU1, OC43, NL63, 229E, SARS-CoV and MERS-CoV-causing colds, pneumonia, systemic infection, and severe or lethal disease [52]. Four of these viruses have been identified in just the last 10 years, with two, SARS-CoV and MERS-CoV, causing lethal respiratory and systemic infection [1,3-6]. Studies over the past decade have expanded the known phylogenetic, geographic, and species diversity of CoVs, and support multiple emergence events of CoVs into humans from bats and other zoonotic pools. The most recent evidence for CoV trans-species movement comes from the emergence of the novel MERS-CoV. From April 2012 to June 2013 MERS-CoV has caused 72 laboratory-confirmed cases and up to 50% mortality from severe respiratory and systemic disease in at least 8 countries, with evidence for human-to-human transmission. MERS-CoV is most closely related to the bat CoVs HKU4 and HKU5, and the recently identified receptor dipeptidyl peptidase 4 (DPP4) is present on both human and bat cells, providing a compelling argument that zoonotic CoV infections resulting in severe human disease may be more frequent events than previously thought. Because of the lack of epidemiological data, it remains unknown whether multiple introductions from a zoonotic source or human transmission of a mild or asymptomatic disease is responsible for these continuing cases of sporadic severe infections. However, based on the high mortality rates associated with SARS-CoV and those reported for MERS-CoV, this novel virus potentially represents a serious threat to global health for which no vaccines or therapeutics currently exist.



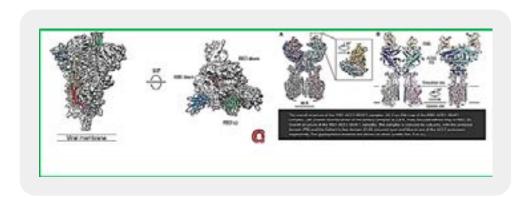


The ribavirin carboxamide group can cause the natural nucleoside drug to resemble adenosine or guanosine, depending on its rotation. For this reason, when ribavirin is incorporated into RNA, as a base analogue of adenine or guanine, it aligns equally with either uricil or cytosine, resulting in mutations in RNA-dependent RNA replication in viral RNA. Such hyperemotion can be fatal to RNA viruses. Ribabirin (1-β-D-ribofuranosyl-1,2,4-triazole-3-carboxamide) is a guanosine nucleotide analogue and a broad spectrum direct antiviral agent (DAA). Ribabirin was discovered 30 years ago and is effective *in vitro* and / or *in vivo* against some RNA or DNA viruses [1-3]. This DAA is most commonly used to treat hepatitis C virus (HCV), severe human respiratory virus (RSV) infection, some blood fever, and more recently for immunosuppressed patients infected with hepatitis E virus (HEV) [4]. Based in part on the authors' work [5-13], this article focuses on the context of HCV infection in the ribavirin mechanism of action, its efficacy according to different therapeutic schedules, and its side effects and toxicity. Because clinical and pharmacological data indicate that adequate and early exposure to ribavirin improves the virologic response, the relevance of ribavirin drug monitoring in different patient populations and different therapeutic situations, including new promising treatment strategies, is also discussed.

While initial antiviral activity of RBV against CoVs was not mutagenic, ExoN2 CoVs treated with 5-FU demonstrated both enhanced susceptibility during multiplication, as well as decreased specific infection, consistent with 5-fluorouracil (5-FU); Functions as a mutagen. Comparison of next-generation and next-generation sequences of 5 FU-treated SARS-CoV populations revealed a 16-fold increase in ExoN2 population mutations compared to ExoN +. Ninety percent of these mutations represented transitions A: G and U: C, which correspond to the 5-FU combination during RNA synthesis. Together our results provide direct evidence that CoV ExoN activity provides a critical proofing function during virus replication. Furthermore, these studies identify ExoN as the first viral protein that differs from the RdRp that determines the susceptibility of RNA viruses to mutagens. Finally, our results show the importance of ExoN as a target for inhibition, suggesting that small molecule inhibitors of ExoN activity could potentially be Co-CoV therapy in combination with RBV or RNA polynomials. [53-55].

Lethal mutagenesis is beyond the direction of virus extinction mediated by enhanced mutation rates during viral genome replication, and is currently being investigated as a new antiviral potential strategy. Viral load and virus capacity are known to affect the extinction of the virus. Here we examine the effect or multiplicity of infection (MOI) on the progeny production of some RNA viruses under enhanced mutagenesis. The effect of basal mutant 5-fluorouracil (FU) mutation on the replication of the rhinovirus chorionitis virus (LCMV) can also delay progeny production and extinction of the virus in infections with high multiplicity of infection (MOI) or moderate titration without extinction in MOI. The effect of MOI is similar to the LCMV and vascular vesicular (VSV) virus, but minimal or absent to the oral and abdominal disease (FMDV) and encephalitis virus (EMCV). The increase in Shannon mutation frequency and entropy (mutant spectrum complexity) as a result of virus transfer in the presence of FU, was more pronounced in low MOI for LCMV and VSV, and high MOI for FMDV and EMCV. We present an extension of the deadly defection model that agrees with the experimental results

#### Scientists Demonstrate how COVID-19 Infects Human Cells [56]



The Entering of the virus to the human cell

Researchers have used cryogenic electron microscopy to show that coronaviruses enter human cells through an interaction with angiotensin-converting enzyme 2 (ACE2).

Scientists demonstrate how COVID-19 infects human cells

Researchers have used cryogenic electron microscopy to show that coronaviruses enter human cells through an interaction with angiotensin-converting enzyme 2 (ACE2).

Scientists exploring how coronaviruses like COVID-19 infect human cells have shown that the SARS-CoV-2 spike (S) glycoprotein binds to the cell membrane protein angiotensin-converting enzyme 2 (ACE2) to enter human cells.

COVID-19 has been shown to bind to ACE2 via the S protein on its surface. During infection, the S protein is cleaved into subunits, S1 and S2. S1 contains the receptor binding domain (RBD) which allows coronaviruses to directly bind to the peptidase domain (PD) of ACE2. S2 then likely plays a role in membrane fusion.

#### The Hope?

Gilad is said to expedite Remdesivir's laboratory tests against 2019-nCoV samples and is working with Chinese authorities.

The company said in a statement: "Gilad is working closely with World Health Authorities to respond to the outbreak of the novel Coronavirus (2019-nCoV) through the appropriate experimental use of the compound design for our investigations. "While there is no antiviral data for remdesivir showing anti-2019-nCoV activity at this time, data available in other coronaviruses gives us hope." Remdesivir is not yet licensed or approved. *In vitro* and *in vivo* analysis in animal models demonstrated drug activity against Middle Eastern Respiratory Syndrome (MERS) and Severe Respiratory Syndrome (SARS), which are viral pathogens with structural similarity to the 2019-nCoV. The Hawahan virus currently lacks specific drugs or treatments. Gilad's drug is among the first to enter clinical trials [57].

Gilead Sciences has partnered with Chinese health authorities to conduct a randomized Phase III clinical trial to evaluate the use of the antiviral drug candidate study (GS-5734) for the potential treatment of corona virus. The company originally developed the drug to treat the Ebola virus, but it was found to be ineffective. Preclinical tests have revealed that the drug may help treat the new 2019-nCoV virus. According to a publication published in the New England Journal of Medicine (NEJM), the drug was found to show encouraging results when given to the first U.S. patient infected with the Wuhan virus. The US patient was re-treated for compassion on the seventh day of illness and his clinical condition was observed to improve on day eight. In Beijing, China, the new placebo-controlled third phase trial of Gilad's drug will be performed at Friendship Hospital. The study should enroll 270 patients with mild to moderate pneumonia caused by the coronoid virus. Gilad is said to expedite Remdesivir's laboratory tests against 2019-nCoV samples and is working with Chinese authorities. The company said in a statement: "Gilad is working closely with World Health Authorities to respond to the outbreak of the novel Coronavirus (2019-nCoV) through the appropriate experimental use of the compound design for our investigations. "While there is no antiviral data for remdesivir showing anti-2019-nCoV activity at this time, data available in other coronaviruses gives us hope." Remdesivir is not yet licensed or approved. In vitro and in vivo analysis in animal models demonstrated drug activity against Middle Eastern Respiratory Syndrome (MERS) and Severe Respiratory Syndrome (SARS), which are viral pathogens with structural similarity to the 2019-nCoV. The Hawahan virus currently lacks drugs or treatments.

### Favipiravir

Favilavir, the first approved coronavirus drug in China [58]

The National Medical Products Administration of China has approved the use of Favilavir, an anti-viral drug, as a treatment for coronavirus. The drug has reportedly shown efficacy in treating the disease with minimal side effects in a clinical trial involving 70 patients. The clinical trial is being conducted in Shenzhen, Guangdong province.

Phiabiravir, also known as T-705, Avigan, or favilavir is an antiviral drug developed by Toyama Chemical (Fujifilm Group) from Japan with activity against many RNA viruses. Like other experimental antivirals (T-1105 and T-1106), it is a pyrazinecarboxamide derivative. Experiments in animal fever fever virus have shown activity against influenza viruses, the West Nile virus, yellow fever virus, oral and oral disease as well as other flaviruses, rabbits, virus builders and alphaviruses. Activity against enteroviruses and fracture fever virus was demonstrated. Favipiravir showed limited efficacy against virus affinity in animal studies, but was less effective than other antiviruses such as MK-608. The agent also showed some effectiveness against rabies, and it has been used experimentally in some people infected with the virus.

In February 2020, Pipiravir was investigated in China for experimental treatment of COVID-19 disease (new coronavirus virus). On March 17, officials suggested bin Wuhan and Shenzhen.

#### Mechanism of Action Revealed for Remdesivir, Potential Coronavirus Drug

Researchers have demonstrated how the drug known as remdesivir works, presenting the viral RNA polymerase of coronaviruses as a target for these conditions [59].

Gilead Sciences has partnered with Chinese health authorities to conduct a randomized Phase III clinical trial to evaluate the use of the antiviral drug candidate study (GS-5734) for potential treatment of corona virus.

The company originally developed the drug to treat the Ebola virus, but it was found to be ineffective. Preclinical tests have revealed that the drug may help treat the new 2019-nCoV virus.

According to a publication published in the New England Journal of Medicine (NEJM), the drug was found to show encouraging results when given to the first U.S. patient to contract the Vaughan virus.

The American patient was re-treated with compassion on the seventh day of the illness and his clinical condition was found to improve on the eighth day.

In Beijing, China, the new third-phase placebo-controlled trial of Gilad's drug will be performed at Friendship Hospital. The study should enroll 270 patients with mild to moderate pneumonia caused by the coronoid virus.

Gilad is scheduled to expedite Remedizier's laboratory tests against 2019-nCoV samples and is working with Chinese authorities.

The company said in a statement: "Gilad is working closely with World Health Authorities to respond to the outbreak of the novel Coronavirus (2019-nCoV) through appropriate experimental use of the compound design for our investigations.

"While there is no antiviral data for remdesivir showing anti-2019 nCoV activity at this time, data available in other coronaviruses gives us hope."

Remdesivir is not yet licensed or approved. *In vitro* and *in vivo* analysis in animal models demonstrated drug activity against Middle Eastern Respiratory Syndrome (MERS) and Severe Respiratory Syndrome (SARS), which are viral pathogens with structural similarity to the 2019-nCoV.

The Hawaiian virus currently lacks medication or treatments

Using the polymerase enzymes from the coronus virus that cause MERS, scientists at Gut's lab have discovered that the enzymes can incorporate remdesivir, similar to an RNA building block, into new RNA strands. Shortly after adding remdesivir, the enzyme stops being able to add more subunits of RNA. This stops the genome duplication.

Scientists speculate that this may happen because remdesivir-containing RNA takes on an odd form that does not fit the enzyme. To make sure, they will need to collect structural data on the recently synthesized enzyme and RNA. Such data can also help researchers plan future drugs for even more activity against polymerase. They offer the coronavirus viral RNA polymerase as a target.



Editing CRISPR Genome is a promising field that allows researchers to delete, replace, or edit genes accurately.

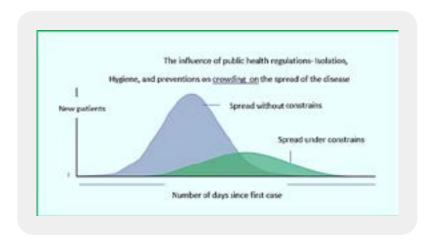
CRISPR-Cas is a prokaryotic defense system whereby bacteria use RNA molecules and proteins related to CRISPR (Cas) to target and destroy the DNA of invading viruses. These molecular machines have been redirected by researchers to target and edit specific sections of any DNA, whether bacterial or human.

#### **CRISPR Technology Challenges**

Despite the success of CRISPR, the technique is far from refined. In some situations, the editing process can cause a change in off-target DNA and cause unwanted effects. Also, CRISPR-Cas9 is a large molecular complex, with both a Cas9 nucleus and a single transgenic RNA (sgRNA) guide that helps the nucleus locate its target. This can make it difficult to deliver to the cell nucleus, where CRISPR needs access to DNA, which is difficult.

Why trying to delay the corona instead of letting it "hit" and move fast?

The number of Corona patients in Israel is on the rising, but the government measures meanwhile prevent uncontrolled expansion. If we manage to moderate the infection rate, we may find that the health system can cope with its peak.



What will happen after the isolation is exhausted and infectious cases appear unclear about their origin?

Then the next stage of "social remote" will enter. Blitzer explains: "The first step in social distancing is the prevention of mass gathering, such as games, because one such event can dramatically change the situation. Already begun to do so (ban on gathering more than 5,000 people; RL) and I estimate Will diminish.

"The next step will be to recommend closing smaller gatherings, theaters and small events. More advanced stages of social remote are violating daily life more seriously - changes in school, workplace and public transport - and those will come.

#### Final Remarks

You can assume that as the plague deepens. More sticking. More patients. More victims. The separation between humans will increase as this is the only way to fight the virus reproduction. I hear that there is a complete closure on Israel. It's just a matter of time. Because the virus, with all the hardships we make it so that it does not migrate from person to person, can escape and wander to its victims. There is no administrative pithrow for the plague but a microbial affliction. Facing the virus with various failures in its reproductive path or bringing in the "virus-eaters" arena in the form of macrophages or dendrites or

chemicals and drugs that stand in the way of the virus within the human body. Does that sound like a fiction movie? This will be the reality. Something new was happening. Infection with children. The children pass the virus easily because their immune system is stable and properly functioning. But in the elderly the situation is already different. In addition to all those "childhood diseases" that have been incarcerated in the body and employ, all the lives of the elderly, their immune systems in containing those measles, mumps, chickenpox and herpes viruses, they already have chronic illnesses and are weak and living with assistive medicine. They are the ones infected with the viruses that the children spread in the space we exist in. And they can cause the death of the elderly and so the children should be prevented from getting infected. And that justifies the quarantine on the children. And postponing schooling until the rage passes.

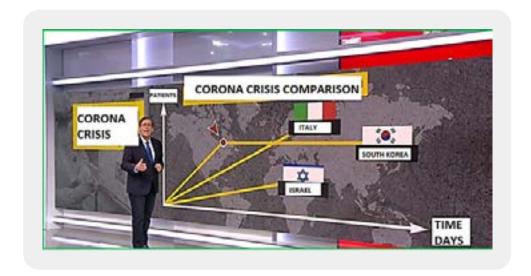
The cry on the Corona is one: it is neither a smartphone nor a car navigation program. It's biotechnology and biology and medicine and it's just neglected because there's no quick profits in it. Simple and for that matter.

That is why we stand and are now all over the world before a broken trough. It will take years to close the gap.

But from reading the scientific articles I am optimistic. Scientists have come up with some solutions to eradicate the Corona family's cruel virus. Let them work and don't tell them "bring money from home," as you have for years. Shame and shame. There is a "big dock" that is a nice virus, kills only 5% and mostly elderly people. But unfortunately, biotechnology and medicine mostly require a lot of time.

The virus can only be curbed by drugs and vaccines. All administrative steps may slow down the spread but not stop it completely.

And, as in other cases, it is the salvation of God that will bring the virus to rest, like those in AIDS and Ebola. And he said in the pomp, "And the salvation of God comes in a blink of an eye....."



How does Israel deal with the Corona compared to other countries? In terms of the growth curve in the number of patients in the country compared with the growth in Italy and South Korea, one can learn about the desired action to stop the spread of the virus. To compare the steps taken or not taken, the number of patients in the different countries over the days must be examined - and see how the different modes of action have affected the situation.



The prime minister today again faced the cameras with a series of dramatic directives to the public and made it clear that this is just the beginning. We heard a detailed explanation of keeping each other apart, crowds, and the virus passing through the air. Along the way, a political message about the time has also come to an emergency government.

But what did we not hear from the Prime Minister tonight? We did not hear what would happen to the fate of small businesses, the self-employed and the tens of thousands of people who have already lost or will soon lose their jobs. At one point, the prime minister announced the closure of restaurants, cafes and gyms until a new announcement, without providing any explanation of what the fate of these industries would be. We have not heard how the state intends to assist them, what solutions will be offered, and how they - such a critical part of the economy - are supposed to overcome the crisis that hit them. 100000 laid off workers for help only 15000 received a reply.

The Ebola epidemic was the mouthpiece that warned the world of the worse and demanded the next epidemic. But the politicians did not think it was serious and continued the usual corruption and stealing of bribes and salutes.

And now, the day of the command has come and today those who run away are trying to tell us night and night stories. They were not preparing for hit. Now they will pay dearly and in many lives. Especially the elderly. In the meantime, the situation is not so bad, but it should be expected in the coming days. What is left to do? Only the closure is full. This is the wrath of the prophet Isaiah. And he had invented the method already. Enter the room to close the doors and wait for rage to pass.

## The First Human Trial of a Vaccine to Protect Against Pandemic Coronavirus has Started in the US.

Four patients received the jab at the Kaiser Permanente research facility in Seattle, Washington, reports the Associated Press news agency. The vaccine cannot cause Covid-19 but contains a harmless genetic code copied from the virus that causes the disease. Experts say it will still take many months to know if this vaccine, or others also in research, will work. The first person to get the jab on Monday was a 43-year-old mother-of-two from Seattle [60].

Closure of Israel
324 patients in Israel 5 patients in serious condition

10 patients, 3,000 in isolation: "Closing a neighborhood in Modi'in"

Against the backdrop of Netanyahu's remarks, the outbreak of the outbreak may be closed: About a quarter of the "Gems" neighborhood has become isolated after ten have fallen in Corona. All students in 3 schools in isolation, having celebrated Purimon together. In assessing a situation in which the mayor has decided that in the meantime no closure will be imposed, but the possibility is still at hand.

#### 90 more Patients: The Number of Corona Patients in Israel Rose to 427

During the night, the Ministry of Health will diagnose 90 additional corona patients in Israel. Five in hard mode, ten in middle mode. Among the patients diagnosed yesterday: two IDF permanent staff.

GILT (gamma-interferon-inducible lysosomal thiol reductase) restricts cellular entry mediated by the SARS-CoV glycoprotein envelope, the Ebola virus and the Lassa fever virus.

Interferons (IFNs) control viral infections by generating expression of IFN-stimulating genes (ISGs) that limit clear viral replication steps.

The report here deals with GAMT (GILT), an ISG (IFN-stimulated genes) associated with lysosomal cells, limits the infectious entry of selected RNA viruses. Specifically, we demonstrated that GILT was constitutively expressed in lung epithelial cells and fibroblasts and could be further expressed by type II interferon. While GILT overexpression inhibited the entry mediated by the SARS coronavirus glycoprotein envelope (SARS-CoV), the Ebola virus (EBOV) and the LASV virus, the GILT depletion enhanced the entry mediated by these enveloped glycoproteins. Furthermore, mutations that impaired the reductase-thiol activity or disrupted N-linked glycosylation, a post-operative change essential for lysosomal location, have greatly impaired the GILT restriction of viral entry. We found that induction of GILT expression reduced the level of cathepsin L activity required for these RNA viruses to enter lysosomes. Our data suggest that GILT is an innovative antiviral ISG that specifically inhibits the entry of enveloped RNA viruses into lysosomes through disruption of the metabolism and function of cathepsin L and may play a role in immune control and pathogenesis of these viruses [61].

## Minister Arden to police: "Prepare for the Possibility of Full Closure - Inevitable Decision"

During the consultation of all the heads of the internal security bodies, the Minister of Public Security instructed them to prepare to implement a decision on a full closure, which may be adopted in the coming days. "In the situation created, this is an inevitable decision that will save many lives," he said, and urged that he be urgently presented with a detailed plan to implement a decision.

Minister of Internal Security Gilad Arden instructed the police and internal security bodies to prepare for the implementation of a full closure decision, during a telephone call by all the heads of the internal security bodies, which took place last Tuesday. In Arden's estimation, such a decision may well be made in the coming days. "I believe that in the created situation it is an inevitable decision that will save many lives," he told them [62].

### Having Background Diseases? This is How you Protect Yourself from the Corona Virus

Many people with background illness are at risk, due to the outbreak of the corona virus. Experts explain what the risks are, who needs to worry and look after his health, and how to do it. In addition, they also recommend how to spend time at home without compromising health, physical and mental. all the details With the spread of the Corona virus in Israel and around the world, a great deal of concern has begun, especially among many Israelis who are suffering from other chronic diseases that could pose a risk due to the outbreak of the virus. In addition, the fact that the isolation and the general atmosphere even in those who are not in isolation can aggravate the illnesses they regularly face. Five Expert Advisers for Patients: Here's how to work properly in dealing with the virus and maintaining your health [63].

### FDA-Approved Home and Lab Tests

You can find information about each home or lab test that FDA has approved or cleared by searching FDA's Database of *In Vitro* Diagnostic (IVD) Tests [64].

To use this database,

- 1. enter a search term (for example the type of test, name, company, or other key word) in the blank space
- 2. click on "Search"
- 3. review the listing of products that match your search term
- 4. select any products for additional information (including Decision Summaries)
- 21 March 2020, 1071 corona identified in ISRAEL



According to scientists, the hope that the disease will wane in the summer months is unfounded. "You have to understand that nobody is talking about the end, there is a new situation here that we will have to learn to live with," he said. "It will be coping while on the move. A little bit will release the closure and if we are lucky and there will be no big increase in morbidity - we will move to the next stage of release. If there is an increase - we will have to withdraw."

"The end is a wish," they concluded, but provided a bright spot. "From other countries, we know that you can return to almost normal life, when only the children have not returned to school. They work with masks and measure heat everywhere and during a work day. The new situation. ".

### Gloomy Forecast: About 25,000 Businesses in Israel will Collapse by the End of the Year

According to the CofaceBdi business information company, tens of thousands of businesses in Israel are expected to collapse as a result of the Corona crisis. Apart from the aviation, tourism and leisure sectors already affected - the assessment also speaks to the harm to services, non-food and transport. "This is the worst economic crisis since WWII"

The Corona crisis has resulted in tens of thousands of deaths worldwide, but it has also led to a deep economic crisis.

According to a forecast by business information company CofaceBdi about 25,000 businesses are expected to be hit by the end of the year - in a two-wave process. Apart from the tourism and leisure industries that have already been severely damaged, businesses that will be hit include transport, retail trade in non-food industries, and those that do not sell online.

In the first wave of the crisis that has already begun, the most affected sectors in the crisis will be hit immediately in the coming weeks: food and dining services, hotels, tourism, aviation, transport, entertainment and leisure art, retail trade in non-food industries, and which are not sold online. In addition, business services as well as personal services and wholesale trade will be damaged. Export-oriented companies in closed industries will also be affected.

The second wave, which is expected to come from previous crises, will also hurt businesses from other areas, including real estate, various industrial sectors, and so on. And the like, "explains Eyal Yanai, co-CEO of CofaceBdi.



#### Second Wave of COVID 19 in East Asia Corona virus

#### Second wave? China and Singapore Fear the Outbreak of Corona

Rejoicing following the partial return to China's routine this week has sparked fears of another wave of adherence - mainly from residents returning from overseas 

Singapore, which today reported 287 new cases of COVID 19, imposed partial closure on residents [65].

Singapore is facing a second wave of corona: announced the closure of jobs

The Singapore announcement signals that even countries that have responded early and whose strategies have been seen as the best in the world are returning to closures and isolation

After overcoming the first wave of the epidemic, Singapore ordered most places of employment to close and schools to move to distance learning. This is already starting next week, against the backdrop of the Corona cases.

The number of infections in Singapore rose to 1,100 last Friday, doubling over the previous ten days. Much of the increase was due to foreigners arriving on the scene, including students, professionals, and travelers returning from abroad. However, in recent days there has been an increase in local infections, and the authorities fear a second wave of the outbreak.

Coronavirus virus reveals global economic vulnerability With the outbreak of the new Coronavirus novel COVID-19 threatening a global epidemic, major stock markets around the world have suffered their worst performance since the 2008 financial crash.

## **Growth Disruption**

The Organisation for Economic Co-operation and Development (OECD) has warned that the outbreak of Coronavirus could cut global economic growth this year to 1.5%, the slowest rate since 2009. It reduced its 2020 growth forecast for China to a 30-year low of 4.9%, down from 5.7% in November [66].

The IMF (International Monetary Fund) lowered China's growth forecast to 5.6% in 2020, its lowest since 1990. Economists surveyed by Reuters during Feb. 7-13 expected China's economic growth to fall to 4.5% in the first quarter of 2020, down from -6% in the previous quarter, the slowest since the financial crisis.

Meanwhile, China's manufacturing sector plummeted in February, as many factories remained closed after the end of the lunar year. The Industrial Purchasing Managers Index (PMI), a broad measure of plant activity, peaked in February, reflecting the sharp contraction.

The World Trade Organization (WTO) predicts that the Corn virus epidemic will greatly slow down the global economy, as China accounts for 19.1% of global GDP through PPP, or 17% at current exchange rates, 13%

A Singapore announcement signals that even countries that have acted soon and whose strategies have been seen as the best in the world may be forced to return to closure and isolation. Singapore authorities are warning that the crisis is likely to continue by the end of the year and may continue into 2021, with new waves of outbreaks as other states loosen the restrictions.

"I am afraid that if we do not take further steps, the situation will gradually get worse, and another big wave will push us to the edge," Prime Minister Lee Hsien Long told me. "We decided that instead of a gradual tightening over the next few weeks, we need a decisive move to prevent further adhesions in advance."

Although the economic consequences of the COVID-19 outbreak require a global response, multilateralism is in disarray. As if to underscore its growing irrelevance, the G20 missed a vital opportunity to provide leadership at its 22-23 February finance ministers' meeting in Riyadh, Saudi Arabia.

### Scientists Tracked COVID-19 Mutations- and the Results are Terrifying

Researchers discovered [67,68] three distinct strains of SARS-CoV-2 to analyze, each with its own unique behaviors. That was before countless mutations as it spread around the globe.

The state of Israel has purchased millions of antibody tests - though their credibility is not proven.

Ministry of Health procures 2.4 million serologic antibody detection kits for Corona for NIS 110 million [69].

#### Final Words

The corona virus when it hits a person can cause two different disease pathways: most people who are about 6/7 undergo a mild, short-term illness while the minority suffer from a serious illness that causes Mr. Death in most cases. The scary thing about today's medicine is no way to identify which path the virus will choose. And anyone infected with the disease is treated severely. But many also recover after about a month from the date of infection. There are cases where doctors manage to cure these seriously ill patients, but it is the minority and not the majority.

This state of affairs requires the earth's dwellers to be isolated to avoid contagion, causing economic disaster. And many will die not from the virus, but from the accompanying disasters.

## **Bibliography**

- $1. \ https://www.mako.co.il/news-lifestyle/2020_q2/Article-c65e7ff9bde8171026.htm?sCh=31750a2610f26110&pId=173113802$
- 2. Coronavirus COVID-19 outbreak: Latest news, information and updates.
- 3. Coronavirus vs SARS, Spanish flu and Ebola death toll and symptoms compared.
- 4. Drosten, C., Gunther, S., Preiser, W., van der Werf, S., Brodt, H.R., Becker, S., *et al.* (2003). Identification of a novel coronavirus in patients with severe acute respiratory syndrome. *N Engl J Med.*, *348*, 1967-1976.
- 5. Zaki, A.M., van Boheemen, S., Bestebroer, T.M., Osterhaus, A.D., and Fouchier, R.A. (2012). Isolation of a novel coronavirus from a man with pneumonia in Saudi Arabia. *N Engl J Med.*, *367*, 1814-1820.
- 6. Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., Zhang, L., Fan, G., Xu, J., Gu, X., et al. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet*.
- 7. Risk of Severe Acute Respiratory Syndrome–Associated Coronavirus Transmission Aboard Commercial Aircraft.
- 8. de la Torre JC (2005) Arenavirus extinction through lethal mutagenesis. Virus Res., 107, 207-214.
- 9. Agudo, R., Arias, A., Pariente, N., Perales, C., Escarmis, C., *et al.* (2008) Molecular characterization of a dual inhibitory and mutagenic activity of 5-fluorouridine triphosphate on viral RNA synthesis. Implications for lethal mutagenesis. *J Mol Biol.*, 382, 652-666.
- 10. Moreno, H., Tejero, H., de la Torre, J. C., Domingo, E. & Martin, V. (2012) Mutagenesis-mediated virus extinction: virus-dependent effect of viral load on sensitivity to lethal defection. *PLoS ONE.*, 7, e32550
- 11. Scientists figure out why catching the coronavirus COVID-19 is so easy.
- 12. Could the Coronavirus Be a Biological Weapon in the Not-Too-Distant Future?
- 13. "Coronavirus and the heart".
- 14. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China.
- (1) Lancet 2020; 395, 497–506. Published Online January 24, 2020 https://doi.org/10.1016/ S0140-6736(20)30183-5.

- 15. Coronavirus Epidemic Update 29: Testing problems, mutations, COVID-19 in Washington & Iran.
- 16. How does COVID-19 affect the body?
- 17. https://www.ynet.co.il/articles/0,7340,L-5688366,00.html?utm\_source=Taboola\_internal&utm\_medium=organic
- 18. The Influenza (Flu) Virus.
- 19. Coronavirus outbreak: "it's almost certain to mutate, this is the nature of these things".
- 20. https://www.the-sun.com/news/321146/coronavirus-vs-sars-spanish-flu-and-ebola-death-toll-and-symptoms-compared/
- 21. WHO: Coronavirus is different from influenza, and that means it can be contained.
- 22. Here's Why It's Taking So Long to Develop a Vaccine For The New Coronavirus.
- 23. World Bank announces up to \$12 billion in immediate funds for coronavirus.
- 24. Health Ministry Asking PM to Ban Gatherings Over 2,500.
- 25. New coronavirus cases jump sharply in Europe, with Italy worst hit.
- 26. How deadly is the new coronavirus?
- $27. \ https://www.mako.co.il/news-israel/2020\_q1/Article-4e31dd191b6a071026.htm?sCh=31750a2610f26110\&pId=173113802$
- 28. Italy coronavirus death toll to 107, 3,089 cases: Live updates.
- 29. https://www.ynet.co.il/articles/0,7340,L-5689060,00.html#autoplay
- 30. https://www.haaretz.co.il/news/health/1.8631267?utm\_source=Push\_Notification&utm\_medium=web\_push&utm\_campaign=General
- 31. https://www.ynet.co.il/articles/0,7340,L-5683974,00.html?utm\_source=Taboola\_internal&utm\_medium=organic
- 32. https://www.ynet.co.il/articles/0,7340,L-5688366,00.html?utm\_source=Taboola\_internal&utm\_medium=organic
- $33. \ https://www.mako.co.il/news-lifestyle/2020\_q2/Article-b8ca291e9698171027.htm?sCh=31750a2610f\\ 26110\&pId=173113802$

- 34. https://www.bloomberg.com/news/articles/2020-04-09/coronavirus-may-reactivate-in-cured-patients-korean-cdc-says?fbclid=IwAR1n1VrCQ5-nXBW6Eg-IBxYgKJEae2IxZIGqsF82cyH\_MKxVQ1BjqDiDxcM
- 35. https://en.vectorbuilder.com/products-services/service/crispr-offerings.html?gclid=Cj0KCQjw-Mr0BRDyARIsAKEFbefW1HdM0hB2XM2aGtLKf50g4GBCv1\_YPCTIOInJ6sLh5Z081W4WBsEaAhe\_EALw\_wcB
- 36. https://www.newsweek.com/melting-glaciers-thawing-permafrost-ancient-viruses-1486037
- 37. D. A. J. Tyrrell,\* F.R.C.P., M. L. Bynoe,\* M.B., D.T.M. & H., D.Obst. R.C.O.G.," Cultivation of a Novel Type of Common-cold Virus in Organ Cultures". *Brit. med. J.*, 1965, 1, 1467-1470.
- 38. FDA Approves First Rapid COVID-19 Test.
- 39. Tara Vogt, M., Marta Guerra, A., Elaine Flagg, W., Thomas Ksiazek, G., Sara Lowther, A. & Paul Arguin, M. (2006). Risk of Severe Acute Respiratory Syndrome Associated Coronavirus Transmission Aboard Commercial Aircraft. *Journal of Travel Medicine*, 13(5), 268-272
- 40. Scientists create atomic-scale map of coronavirus' deadly weapon, pointing out a path to fighting it.
- 41. https://www.nytimes.com/interactive/2020/world/coronavirus-maps.html
- 42. Battle Against Novel Coronavirus Outbreak.
- 43. Researchers work to create a COVID-19 viral epitope map.
- 44. Wuhan Institute Of Virology And Chinese Army Submit Patent For Gilead Anti-Ebola Drug To Fight Coronavirus.
- 45. Dustin Siegel, Hon Hui, C., Edward Doerffler, Michael Clarke, O., Kwon Chun, Lijun Zhang, Sean Neville, Ernest Carra, *et al.* (2017). Discovery and Synthesis of a Phosphoramidate Prodrug of a Pyrrolo[2,1-f ][triazin-4-amino] Adenine C-Nucleoside (GS-5734) for the Treatment of Ebola and Emerging Viruses. *J. Med. Chem.*, 60, 1648-1661.
- 46. https://www.youtube.com/watch?v=pfGpdFNHoqQ
- 47. Wang, M., Cao, R., Zhang, L., et al. (2020). Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro. Cell Res., (2020).
- 48. Manli Wang, Ruiyuan Cao, Leike Zhang, Xinglou Yang, Jia Liu, Mingyue Xu, Zhengli Shi, Zhihong Hu, Wu Zhong & Gengfu Xiao (2020). Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) *in vitro*. *Cell Research*, 30, 269–271(2020).

- 49. US to fast-track anti-malaria drug to treat coronavirus.
- 50. Savarino, A., Di Trani, L., Donatelli, I., Cauda, R. & Cassone, A. (2006). Lancet Infect. Dis., 6, 67-69. (1). Yan, Y., et al. (2013). Cell Res., 23, 300-302. (2). Vincent, M. J., et al. (2005). Virol. J. 2, 69 (2005). (3). Mackenzie, A. H. Am. J. Med., 75, 40-45.
- 51. Mohammad Reza Dayer, Sara Taleb-Gassabi, and Mohammad Saaid Dayer, "Lopinavir; A Potent Drug against Coronavirus Infection: Insight from Molecular Docking Study," Archives of Clinical Infectious Diseases, 12(4), e13823.
- 52. Everett Clinton Smith, Herve Blanc, Marco Vignuzzi, Mark R. Denison, R. (2013). Coronaviruses Lacking Exoribonuclease Activity Are Susceptible to Lethal Mutagenesis: Evidence for Proofreading and Potential Therapeutics. *PLOS Pathogens*, *9*(8), e1003565.
- 53. de la Torre JC (2005) Arenavirus extinction through lethal mutagenesis. Virus Res., 107, 207-214.
- 54. Agudo, R., Arias, A., Pariente, N., Perales, C., Escarmis, C., *et al.* (2008). Molecular characterization of a dual inhibitory and mutagenic activity of 5-fluorouridine triphosphate on viral RNA synthesis. Implications for lethal mutagenesis. *J Mol Biol.*, 382, 652-666.
- 55. Moreno, H., Tejero, H., de la Torre, J. C., Domingo, E. & Martin, V. (2012). Mutagenesis-mediated virus extinction: virus-dependent effect of viral load on sensitivity to lethal defection. *PLoS ONE*, 7, e32550.
- 56. https://www.drugtargetreview.com/news/56895/scientists-demonstrate-how-covid-19-infects-human-cells/
- 57. Gilead's remdesivir to enter trials for coronavirus treatment.
- 58. https://www.clinicaltrialsarena.com/analysis/coronavirus-mers-cov-drugs/
- 59. Mechanism of action revealed for remdesivir, potential coronavirus drug.
- 60. https://www.bbc.com/news/health-51906604
- 61. Danying Chen, Zhifei Hou, Dong Jiang, Mei Zheng, Guoli Li, Yue Zhang, Rui Li, et al. (2019). GILT restricts the cellular entry mediated by the envelope glycoproteins of SARS-CoV, Ebola virus and Lassa fever virus. Emerging Microbes & Infections, 8(1), 1511-1523.
- 62. https://www.mako.co.il/news-israel/2020\_q1/Article-5a2a1b385dce071026.htm?sCh=31750a2610f26 110&pId=173113802
- 63. https://www.mako.co.il/news-israel/2020\_q1/Article-3458363348ce071026.htm?sCh=31750a2610f26 110&pId=173113802

- 64. https://www.fda.gov/medical-devices/tests-used-clinical-care/find-all-fda-approved-home-and-lab-tests
- 65. https://www.theguardian.com/world/2020/apr/02/asian-countries-face-possible-second-wave-of-coronavirus-infections.
- 66. http://www.ipsnews.net/2020/03/coronavirus-exposes-global-economic-vulnerability/
- 67. https://www.thedailybeast.com/scientists-tracked-covid-19-mutations-and-the-results-are-terrifying
- 68. Shimon Shatzmiller (2020). The Mutations of the Coronavirus The Darker Perspective of the Future of the Current Coronavirus Epidemy Crisis Opinion. *Acta Scientific Neurology*, *3*(4), 50-55.
- $69. \quad https://www.timesofisrael.com/liveblog\_entry/health-ministry-announces-purchase-of-2-4-million-antibody-tests/$