



# THE ITALIAN COVID-19 EPIDEMIC AND THE GLOBAL PANDEMIC PREVENTION AND THERAPIES

\*Giulio Tarro, MD, PhD

President of the T.&L. de Beaumont Bonelli Foundation for Cancer Research, Naples, Italy

## ARTICLE INFO

### Article History:

Received 18<sup>th</sup> February, 2021  
Received in revised form  
14<sup>th</sup> March, 2021  
Accepted 10<sup>th</sup> April, 2021  
Published online 15<sup>th</sup> May, 2021

### Key Words:

COVID-19, Genetic variants, SARS-CoV-2 vaccines, Antibodies, Antiviral drugs.

\*Corresponding author:  
Giulio Tarro, MD, PhD

## ABSTRACT

The Italian management of the coronavirus epidemic by the technical scientific committee (TSC) was a failure according to an editorial in the prestigious English journal NATURE as reported in the first decade of March 2021. According to a study published in Science by the Emory University of Atlanta, the coronavirus will take on an endemic character and its lethality, i.e. mortality of the infected, will end up settling around 0.1% below seasonal flu, therefore strong social distancing. It is not the solution, the lockdown, masks, closures, hunting for the infected, blaming the people. Who gets sick must be treated, using hydroxychloroquine, azithromycin, and healing people at home. Used cortisone and heparin and avoided thrombus embolisms. People died because the correct drugs were not used. The incidence of asymptomatic positive cases in Wuhan post-lockdown was very low (0.303 / 10,000) and there was no evidence that the cases identified as positive asymptomatic were infectious. As attested by the few data made public by the pharmaceutical companies that produce them, the current vaccines do not guarantee a perennial immunity nor, even less, a "sterile immunity" to the vaccine that continues, therefore, to transmit the virus. They only promise to reduce the symptoms of the infection; symptoms that in 90-95% of the "infected" do not even manifest themselves. It would have been logical, therefore, that only the elderly were vaccinated in whom the onset of Covid represents a real danger. If seniors over 80 had been vaccinated in January as originally planned, there would have been no 500 deaths per day. Instead, a mass vaccination has been chosen which - in addition to multiplying the risks, inevitably associated with vaccines - will not guarantee even temporary herd immunity. There are currently three major genetic variants of COVID-19. these mutations typically arise when the virus is subjected to selective pressure by antibodies that limit but do not eliminate viral replication. the specific antibodies, which neutralize the virus, are still able to act on the viral "spike" protein, despite the sequence changes of the viral nucleic acid being present in the D614G variant, as in the other subsequent ones that have the purpose of allowing survival of viral particles. Protease inhibitors have been effective in the treatment of other viral pathogens such as HIV and the hepatitis C virus, both alone and in combination with other antivirals. Currently commercialized therapies that target viral proteases are generally not associated with toxicity and as such, this class of molecules can potentially provide well-tolerated treatments against COVID-19.

Copyright © 2021. Giulio Tarro. 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.

Citation: Giulio Tarro, MD, PhD. "The Italian covid-19 epidemic and the global pandemic prevention and therapies", 2021. International Journal of Current Research, 13, (05), 17261-17266.

## INTRODUCTION

The Italian management of the coronavirus epidemic by the technical scientific committee (TSC) was a failure according to an editorial in the prestigious English journal NATURE as reported in the first decade of March 2021 (Pistoi, 2021). There was no virologist on the committee and most of the 24 "experts" were appointed ad personam without any expertise in the field of viral infection.

Furthermore, the CTS with little or no experience said in January 2021 that keeping students on distance learning would cause them a serious impact on the psychological and personality side. Such a declaration resulting in national policies despite having no member experience in the fields of education, child psychology or neuropsychiatry (Elias *et al.*, 2021). According to a study published in Science by the Emory University of Atlanta, the coronavirus will take on an endemic character and its lethality, i.e. mortality of the infected, will end up settling around 0.1% below seasonal flu, therefore strong social distancing. it is not the solution, the

lockdown, masks, closures, hunting for the infected, blaming the people ... We pretend to persevere with this management of the emergency in the illusion of stopping a virus now ENDEMIC, asymptomatic in 90-95% of cases, and which could be effectively addressed, even when affecting the elderly, with prompt treatment (Lavine *et al*, 2021). We have 90 to 95% asymptomatic positives. And positive asymptomatics are not contagious. Always. Who does not have the symptoms, who is not sick, cannot infect. It was stated by the "WHO". So it makes no sense to lock everyone in the house. Who gets sick must be treated, simply. As I did following the dictates of Didier Raoult (Tarro, 2020a), for the people who came to me. As hundreds of doctors do using hydroxychloroquine, azithromycin, and healing people at home. For example, much fewer died in the center-south because they immediately used cortisone and heparin and avoided thrombus embolisms. People died because the correct drugs were not used (Palma *et al*, 2020, Trapanese *et al*, 2020). An example applies to everyone: they called me from Sicily because there was a 54-year-old sick man in Milan. The ambulance had come out, they had told him that there was no need for hospitalization. He had asked " what should I do? Answer, Nothing, there is no therapy.

We have reached a lethality rate which, I repeat, is linked to the poor management of the emergency, to the wrong treatments, to intensive care places cut in recent years. Here to use hydroxychloroquine we had to wait for the State Council! One concept must be clear: Covid is cured. Meanwhile, the elimination of all the absurd prophylactic rules imposed so far, such as the ubiquitous masks that in many countries have not been used for months. Then enough of the unreliable tampons scattered throughout the regions to put the "infected" in isolation and announce phantom "Covid outbreaks. We need a stable state-run contagion monitoring structure that aims to ascertain the level of immunity acquired (Tarro, 2020b). No more bargaining between experts to determine what to do. Instead, it is better to have a single epidemiologist in the health management of the emergency. Protect the categories at risk by ensuring the resumption of outpatient and home visits. Enough with media terrorism and enough with censorship. All the documentation relating to the emergency, including the medical records of the "deaths from Covid", scientific studies, the reasons for the exclusion or insertion of drugs, contracts with pharmaceutical companies, must be made immediately available to Parliament, of researchers and the public.

Masks should be worn when needed. If there is spacing, you can also do without the mask, especially outdoors. The mask is used in indoor places or in rooms where there are contacts of less than one meter. They should not be abused, as they can become harmful to health in the long run. We are not all the same and we cannot impose their indiscriminate use everywhere ". Only the infected must wear masks and must be careful with distances when they attend people at risk. But a mask cannot be imposed on children. At least up to 12 years. Hygiene rules must be respected carefully by everyone, with common sense. On the other hand, the use of masks under the age of six is completely prohibited (WHO) since it could induce a functional "autism", because there are three areas of the cerebral cortex in evolution based on associations and emotions that a child transposes at that age (Arantes de Araújo *et al*, 2020).

From a study published February 17 in The Lancet: "Clarifying the evidence on SARS-CoV-2 antigen rapid tests in public health responses to COVID-19". RNA fragments can persist, even in the nasal cavity, for weeks after the infection has already been eradicated (so no viable virions persist within the body). This, together with cross-reactivity phenomena (positivity towards coronaviruses similar to Sars-Cov-2, linked to the use of high concentrations of the primer primer of the PCR is the basis of false positive PCR, which, therefore, do not represent the method reference for mass tracing (Doug, 2021). That the method for establishing the current yellow, orange and red zones by calculating the supposed "infected" is wrong; they are imposing confinements and closures absolutely useless from a health point of view. The incidence of asymptomatic positive cases in Wuhan post-lockdown was very low (0.303 / 10,000) and there was no evidence that the cases identified as positive asymptomatic were infectious (Cao *et al*, 2020). These observations allowed the authorities to decide to adapt prevention and control strategies in the post lockdown period. Further studies are required to fully assess the amount and actual cost of citywide screening for SARS-CoV-2 infection on the health, behavior, economy and social relationships of the population (Luisetto *et al*, 2020a, Luisetto *et al*, 2020b).

**Prevention:** It is really madness to continue with the hunt for the infected person to "isolate", also because, Sars-Cov-2 (and its innumerable "variants") being extremely contagious and not producing a stable immunity, like that of chickenpox, is on the way to becoming (or has already become) endemic in the population. And, of course, you can't get rid of it with masks, lockdowns, closed schools, and social distancing. (Tarro, 2020c). As attested by the few data made public by the pharmaceutical companies that produce them, the current vaccines do not guarantee a perennial immunity nor, even less, a "sterile immunity" to the vaccine that continues, therefore, to transmit the virus. They only promise to reduce the symptoms of the infection; symptoms that in 90-95% of the "infected" do not even manifest themselves. It would have been logical, therefore, that only the elderly were vaccinated in whom the onset of Covid represents a real danger. If seniors over 80 had been vaccinated in January as originally planned, there would have been no 500 deaths per day. Instead, a mass vaccination has been chosen which - in addition to multiplying the risks, inevitably associated with vaccines - will not guarantee even temporary herd immunity.

So we need to completely change the unsuccessful management of the Covid emergency which has been going on for a year now. What could be a new, effective health strategy is needed. For example, the elimination of all the absurd "prophylactic rules" imposed so far. Prophylactic measures that, on the other hand, the millions of hypochondriacs that the lockdowns have managed to create now consider "normal". Like the ubiquitous "masks" that, in many countries, such as Russia for example, have not been used for months. In Italy, on the other hand, not only are those who do not cover their noses with a mask as a "greaser", but they continue to praise rulers who today announce new ironclad lockdowns to "save the Easter holidays", forgetting what they were the Christmas holidays. (Tarro, 2020d). Meanwhile, instead of the unreliable tampons disseminated without any criteria by the Regions to put the "infected" in isolation and announce phantom "Covid outbreaks", a stable state-run contagion monitoring structure that aims to ascertain the level of acquired immunity.

According to the European Center for Disease Control ECDC, PCR is reliable for up to 24 cycles - for example, swabs have been amplified with between 35 and 41 cycles, making them 90% unreliable. The infections of COVID-19 in Italy would be two thirds less than those reported. The suspicion was launched by a very popular broadcast of 27-2-2021 on TV Le Iene. The Istituto Superiore di Sanità (ISS) has the task of validating the results of the coronavirus positive swabs. According to a report by the ISS President in an internal meeting, two thirds of the swabs supposedly positive would have been negative. Then, an end to the deresponsibilizing bargaining between "experts", committees, Regions, and the Government to determine what to do; better, instead, a single epidemiologist in the health management of the emergency. In addition, a real protection for the categories at risk ensuring, above all, the resumption of home and outpatient visits. Enough, then, with media terrorism and the expulsion of critical opinions. And enough with censorship: all the documentation relating to the emergency (for example: the medical records of the "deaths from Covid", the scientific studies that support the management of the emergency, the reasons for the exclusion / inclusion of drugs or therapies, or contracts with pharmaceutical companies) must be made immediately available to Parliament, researchers and the public (Liusitto *et al*, 2021a, Luisetto *et al*, 2021b). However, I am not under the illusion that, without a great movement of opinion, these measures can be adopted soon. Also because today people have been reduced to believing that if the lockdowns do not work, the fault lies with some unfortunate person who indulges in the nightlife and accepts what Antony Fauci said, namely that, even with vaccinations, we will have to wear a mask at the open at least until 2023.

**Genetic Variants of COVID-19:** There are currently three major genetic variants of COVID-19. These mutations typically arise when the virus is subjected to selective pressure by antibodies that limit but do not eliminate viral replication. The specific antibodies, which neutralize the virus, are still able to act on the viral "spike" protein, despite the sequence changes of the viral nucleic acid being present in the D614G variant, as in the other subsequent ones that have the purpose of allowing survival of viral particles (Moore, Offit, 2021). In August 2020, another variant began to spread in the United Kingdom; often referred to as the "English variant", but labeled as B.1.1.7. This variant is now isolated in many nations including the United States, the sequence of the protein S variation is called N501Y and appears to increase the transmissibility of COVID-19. Recent studies have shown that Pfizer BioNtech and Moderna messenger RNA vaccines are protected by antibodies neutralizing the new variant. However, other laboratory studies at Rockefeller University have shown the reduction in the efficiency of messenger RNA vaccines on antibodies that neutralize the virus. In conclusion, these observations allow us to know that there is the possibility of a decreased effectiveness of specific antibodies for the virus, and suggest that we can carry out a modulation of vaccines capable of coping with the new viral variants with the addition of new neutralizing antibodies (Haghen, 2021).

Another variant now circulates in Southern California CAL20C with a gene sequence called L452Y which appears to act very similarly to the English variant. Unfortunately, there is a new variant identified in South Africa, N501Y.V2 (or B.1.351). At the genetic level, the African variant has greater sequence changes than both D614G and the English one. This

"African variant" is of greater concern because the new genetic sequences are closer to the viral pick-up that binds to the ACE2 receptor of human cells to penetrate and thus infect them. Since the sequence variation of the virus is close to the cellular entry "key", the specific antibody may fail to neutralize the viral component that allows cell penetration. Finally, another variant with the same properties as the South African one has been identified in Brazil, the spread of which we are now beginning to know. An RNA messenger vaccine may induce modification on cell DNA?. Yes, by transcribing the viral sequences integrated into the genome by means of a reverse transcriptase (t.i.) of the cells or a t.i. of an HIV and these DNA sequences can be integrated into the cellular genome and their expression was induced with COVID-19 infection or cytokine exposure in cell cultures suggesting a molecular mechanism for COVID-19 retro-integration in patients (Zhang *et al*, 2020).

**SARS-CoV-2 Vaccines:** The AstraZeneca and Reithera vaccines consist of an adenovirus vector of the coronavirus spikes. AstraZeneca uses a chimpanzee virus, while Reithera uses a gorilla virus. The adenoviruses used are not contagious, the protection time is not yet known. The mechanism by which the vaccine acts is to stimulate the production of specific antibodies for itself, in order to neutralize the biological effect, i.e. contagion and pathological effect, on the host organism. The most traditional vaccines are the Chinese and Indian ones, with the virus deactivated, but also the vaccine produced by the Russians uses an adenovirus as a vector containing the instructions to produce the "spike" glycoprotein that allows the virus to bind to human cells, which it will later use as a copiers to create new copies of himself. Our immune system learns to recognize the protein of the "hybrid" and less aggressive virus, preserving the memory of the agent encountered. The technique of injecting not a virus but fragments of messenger RNA (mRNA) consists in using a molecule mirroring the DNA of the virus for the production of proteins constituting the viral particle which has the aim of inducing the "spike" glycoprotein of the coronavirus, which it is used for the ACE2 receptors of target cells in order to produce these antigens in our cells through the information of the mRNA. The production of specific antibodies such as immunoglobulins towards these specific viral antigens is then stimulated to establish the immunity of the vaccinated subject. It is therefore a new gene therapy, never used before, based on a molecule that contains the instructions for the synthesis in the human body of new proteins which should allow to better resist the attack of the same virus.

We know that in the case of a viral infection that infects the antibody-producing lymphocytes, new human proteins called transcription factors are synthesized. In other words, certain regions of the virus genome bind to the genome of human cells. This viral union with human transcription factors modify the expression of nearby viral genes. It has recently been seen that a mechanism is put in place to activate some associated human genes that predispose to the risk of autoimmune diseases, such as lupus, multiple sclerosis, rheumatoid arthritis, inflammatory bowel diseases, type 1 diabetes, juvenile idiopathic arthritis and celiac disease. Finally, Peter Doshi's editorial in the British Medical Journal is based on a careful analysis of the reported clinical data and is worth more than a work presented for its publication. Infection of the population is more widespread than one might think, which is why we can speak of herd immunity as a goal of the epidemic and

vaccination (Doshi, 2021). Looking ahead, the new COVID vaccine methodology may benefit cancer and multiple sclerosis research, but not now. Obviously the main problem of the existence of these viral variants concerns the vaccine response, for example at the National Institute of Health they have shown that the antibodies induced by the Moderna messenger RNA vaccine are one sixth active against the South African variant. On the other hand, messenger RNA vaccines are capable of inducing both cytotoxic T cells and specific T helper cells that are involved in protection against the virus. In any case, while acknowledging the lower sensitivity of the South African and Brazilian variant with regard to sensitivity to neutralizing antibodies, messenger RNA vaccines remain valid. On the other hand, the same observation was made with inactivated vaccines developed in China and India. On the other hand, there are not enough data to know the efficacy of human or monkey adenoviral vector vaccines (AstraZeneca, Johnson and Johnson/Janssen and the Russian Sputnik V) or for the recombinant proteins of Novavax (USA) and Sanofi (GSK). The variants also become less susceptible to neutralizing monoclonal antibodies produced in the laboratory and used pharmacologically. The same alterations that change the shape of protein S (spike) and are capable of distorting the site to which neutralizing antibodies bind, have been shown to render monoclonal antibodies ineffective for the English variant and in particular for the South African one. Therefore, the new monoclonal antibodies authorized by the American Food and Drug Administration (FDA) must be able to neutralize these viral variants as well.

The South African variant is able to avoid protection induced by the Pfizer-BioNTech vaccine according to a new Israeli study carried out by the University of Tel Aviv and the Clalit institute, not yet peer-reviewed. In Israel, the Pfizer vaccine is used almost exclusively to vaccinate millions of citizens (very few doses of Moderna have circulated). The spread of variants (in particular the South African and the Brazilian that have the E484K mutation in common, capable of partially evading vaccine protection) worries governments around the world. So much so that the pharmaceutical companies have already moved and are studying a "third dose" precisely to increase protection against the most insidious variants. In fact it always seems more likely the hypothesis that periodic recalls are necessary, especially among the elderly, the more fragile population, as is already the case with the flu.

Having a 95% effective vaccine like Pfizer does not mean that 5 out of every 100 people will get sick. The efficacy figure relates to individual protection and is a probabilistic figure. If the vaccine is 95% effective, each individual who completes the vaccination course with that product is 95% less likely to be infected each time they are exposed to the virus than an individual who is not vaccinated.

We must be very attentive to the development of the ADE phenomenon. It is an inflammatory amplification of the response derived from the antibodies (Isoplexis, 2020). Therefore, inflammation due to antibodies increased exponentially, or when there is reproduction of antibodies on a substrate that already has antibodies. In summary, if one has had COVID, even realizing it, but especially the famous asymptomatic ones, it determines an amplification of the antibody response (Gattinger *et al*, 2021). According to British Government data, after 20 million people vaccinated there were 502 deaths, 87387 reactions and 43 blind medically, there was no difference between Pfizer/BioNTech and Astrazeneca vaccines - 0.00251% of people death (Amorosi, 2021). Cases

that received a COVID-19 vaccine caused the virus to be passed on to others and should continue to follow lockdown rules, British medical office deputy chief Van-Tam said (Van-Tam, 2021). Use of the Johnson & Johnson covid-19 vaccine has been suspended in the United States after six people experienced blood clots, out of 6.8 million who received the vaccine in the country. The cases appear to be similar to the rare blood clots seen in recipients of the Oxford/AstraZeneca vaccine, which has led some countries to restrict its use (Luisetto *et al*, 2021c, Luisetto *et al*, 2021d). Blood clot syndrome involves an unusual type of clot, often one that forms in the brain - called cerebral venous sinus thrombosis or CVST - coupled with low levels of platelets, small particles in the blood that join together to form clots. It has mainly been seen in people under 60 and more often in women than men. But the gender difference could be due to the fact that more women have been vaccinated, as they include more health care workers and nursing home staff. In an analysis of 79 cases in the UK seen after the Oxford/AstraZeneca jab, they occurred with equal frequency in men and women, says Munir Pirmohamed, chairman of the UK Commission on Medicines for Men. The overall rate was four cases per million people who received the vaccine in the UK. It is not known why young people seem more at risk, but the age distribution is partly why some countries have said that this vaccine should only be given to those over a certain age. The other reason is that older people are more at risk from covid-19 itself, so the benefit of the vaccine should outweigh the risk. The six cases of CVST recently reported in Johnson & Johnson vaccine recipients, one of them fatal, were all in women between the ages of 18 and 48. Johnson & Johnson announced that it will delay the European launch of its product. "We have worked closely with medical experts and health authorities and strongly support the open communication of this information to healthcare professionals and the public," the company said in a statement. What could be causing the clots? In the Oxford/AstraZeneca cases, many of those affected have tested positive for antibodies that bind to a molecule released by platelets, called platelet factor 4 or PF4. The vaccine can somehow trigger the production of these antibodies, which cause smaller blood clots to form and which can consume platelets, says Andreas Greinacher of the University of Greifswald in Germany. It resembles a syndrome in which similar antibodies can be activated by treatment to thin the blood heparin, says Greinacher, who is an expert on the side effect of heparin.

## Conclusion

We have seen the importance of the use of monoclonal antibodies to neutralize the COVID-19 infection (Tarro, 2020e), also in this field, the health care Italy has not been up to the situation on their use linked to bureaucracy and inefficiency as we had already seen for the use of serotherapy (Tarro, 2020f, Tarro, 2021). Antivirals such as Remdesivir have finally found space, although there has been no determination of the use of chlorine dioxide in antiviral treatment as in Central South America (Insignarse-Carrione *et al*, 2021). The effect of Ivermectin has also been recognized as effective in resolving symptoms among adults with mild disease, like the drug found by the Israelis (López-Medina *et al*, 2021). Israel is experimenting with a drug against Covid which, at first results, is declared effective over 90%. The Israeli press writes it. The Ichilov Medical Center in Tel Aviv has successfully completed phase one studies of the research

project on this new medicine, which is giving very encouraging responses. The medicine has helped numerous moderate to severe Covid patients recover from the disease quickly. The hospital announced that the substance, Prof. Nadir Arber's EXO-CD24, was administered to 30 patients whose conditions were moderate or severe, and all 30 recovered, 29 of them within 3-5 days. The medicine fights the cytokine storm, a life-threatening immune reaction to coronavirus infection that is believed to be responsible for most of the deaths associated with the disease. It uses exosomes, tiny sac-like particles that carry materials between cells, to deliver a protein called CD24 to the lungs. "This protein - Shiran Shapira from Arber's laboratory explained to the press - is found on the surface of cells and has a well-known and important role in regulating the immune system, helping to calm the system and curb the storm". Arber explained that the preparation is inhaled once a day for a few minutes, for five days, and reaches the lungs directly. In this way, unlike other preparations, the Israeli cocktail is administered locally and does not involve side effects, also because it does not operate on a broad spectrum. The drug will now move to further stages of testing, but doctors are talking about a possible turning point in the fight against Covid-19. For the director of the Ichilov research center, Roni Gamzu who was also head of the government coronavirus team, the research "is advanced and sophisticated and could save coronavirus patients. The results of the phase 1 trial are excellent and give us confidence in the method that researchers have been studying in our laboratory for many years".

American pharmaceutical company Pfizer, which makes the most sought-after COVID vaccine, is also testing an oral drug, a protease inhibitor. This was announced in a note by the same American pharmaceutical company which clarified that "the clinical candidate is an oral antiviral (PF-07321332), a SARS-CoV2-3CL protease inhibitor, which has shown a potent antiviral activity in vitro against SARS-CoV-2, as well as activities against other coronaviruses, suggesting a potential use in the treatment of COVID-19 and potential use to address future coronavirus threats". Protease inhibitors have been effective in the treatment of other viral pathogens such as HIV and the hepatitis C virus, both alone and in combination with other antivirals. Currently commercialized therapies that target viral proteases are generally not associated with toxicity and as such, this class of molecules can potentially provide well-tolerated treatments against COVID-19.

**Conflict of Interests:** The author has no conflict of interests to declare.

### Acknowledgments

The author thanks for their support: Foundation T&L de Beaumont Bonelli for Cancer Research Napoli – Italy, [www.fondazione-bonelli.org](http://www.fondazione-bonelli.org).

## REFERENCES

Amorosi A. 2021. Reactions to vaccines, British government data. 502 deaths, 87387 reactions, 43 blind. <https://www.affaritaliani.it/coronavirus/reazioni-ai-vaccini-dati-governo-inglese-502-morti-87387-reazioni-43ciechi-728517.html>

- Arantes de Araújo L, Frederico Veloso C, de Campos Souza M, Coelho de Azevedo JM, Tarro G. 2020. The Potential Impact of the COVID-19 Pandemic on Child Growth and Development: a Systematic Review. *Jornal de Pediatria*, DOI: 10.1016/ipd.2020.08.008.
- Cao S, Gan Y, Wang C *et al.* 2020. Post-lockdown SARS-CoV-2 nucleic acid screening in nearly ten million residents of Wuhan, China. *Nature Communications* <https://www.nature.com/articles/s41467-020-19802-w>
- Doshi P. 2021. Pfizer and Moderna's "95% effective" vaccines—we need more details and the raw data. <https://blogs.bmj.com/bmj/2021/01/04/peter-doshi-pfizer-and-modernas-95-effective-vaccines-we-need-more-details-and-the-raw-data/>
- Doug C. 2021. Breaking Study Sheds More Light on Whether an RNA Vaccine Can Permanently Alter DNA. <https://sciencewithrdoug.com/2021/02/15/breaking-study-sheds-more-light-on-whether-an-rna-vaccine-can-permanently-alter-dna/>
- Elias C, Nkengasong J and Quadri F. 2021. Emerging Infectious Diseases – Learning from the Past and Looking to the Future. *N. Engl. J. Med* 384;13.
- Gattinger P, Borochova K, Dorofeeva Y *et al.* 2020. Antibodies in serum of convalescent patients following mild COVID 19 do not always prevent virus receptor binding. *European Journal of Allergy and Clinical Immunology*. <https://doi.org/10.1111/all.14523>
- Hagen A. 2021 SARS-CoV-2 Variants vs. Vaccines. <https://asm.org/Articles/2021/February/SARS-CoV-2-Variants-vs-Vaccines>
- Insignarse-Carrione E, Bolano Gomez B, Andrade Y *et al.* 2021 Determination of the Effectiveness of Chlorine Dioxide in the Treatment of COVID-19. *Journal of Molecular and Genetic Medicine*, Vol. 15:S1.
- Iso Plexis. 2020 Publication in Cell: IsoPlexis' Functional Proteomics Identifies Prognostic Biomarker of Inflammation in COVID-19. <https://isoplexis.com/blog/publication-in-cell-isoplexis-functional-proteomics-identifies-prognostic-biomarker-of-inflammation-in-covid-19/>
- Lavine JS, Bjornstad ON and Anita R. 2021. Immunological characteristics govern the transition of COVID-19 to endemicity. *Science*, Vol. 371, Issue 6530, pp. 741-745, DOI: 10.1126/science.abe6522.
- López-Medina E, López P, Hurtado IC *et al.* 2021. Effect of Ivermectin on Time to Resolution of Symptoms Among Adults with Mild COVID-19. A Randomized Clinical Trial. *JAMA*325(14):1426-1435, DOI: 10.1001/jama.2021.3071.
- Luisetto M, Almukthar N, Tarro G *et al.* 2020a. COVID-19 and other Coronavirus: Airborne Indoor and Outdoor Transmission? State of Evidence. *International Journal of Current Research*. Vol. 12, Issue, 05, pp.11652-11663.
- Luisetto M, Almukthar N, Tarro G *et al.* 2020b. Pianura Padana geo-morphology, climate condition prevalence and distribution of COVID -19 and some other respiratory virus: Hypotesis of work. *IMA International Academy Masijnskaya*, 2020.06.06. Reg. №: 648.
- Luisetto M, Almukthar N, Tarro G *et al.* 2021a. Respiratory Virus Pattern of Diffusion: Size Influence. *Int. J. Dev. Res., Huma Soc. Scie.*, vol4, issue 1, 163-175.
- Luisetto M, Almukthar N, Tarro G *et al.* 2021d. Spike SARS-CoV-2 Protein as Procoagulant Factor and Vaccine Class Effect Hypotesys. *Journal of Antimicrobial Agents*. Vol 7:4, ISSN: 2472-1212.

- Luisetto M, Naseer A, Gamal AH, Tarro G *et al.* 2021b. COVID-19 New variant and air pollution relationship: how airborne mutagens agent can act on genoma viruses expression: Hypothesis of work. *International Journal of Clinical Virology*. ISSN 2692-4994, DOI: 10.29328/journal.ijcv.1001031.
- Luisetto M, Tarro G, Farhan AK *et al.* 2021c. RBD targeted COVID vaccine and full length spike-protein vaccine (mutation and glycosylation role) relationship with procoagulant effect. *Journal of Child, Adult Vaccines and Immunology*. DOI: 10.29328/journal.jcavi.1001007.
- Moore JP and Offit PA. 2021. SARS-CoV-2 Vaccines and the Growing Threat of Viral Variants. *JAMA* DOI:10.1001/jama.2021.1114.
- Palma G, Imitazione P, Tarro G *et al.* 2020. The Novel Coronavirus is a Coagulative Disease with Diffuse Thrombosis of the Vascular System: The Fundamental Role of the Antithrombotic Therapy. *International Journal of Current Research*. Vol. 12, Issue, 07, pp.12205-12212.
- Pistoi S. 2021. Examining the role of the Italian COVID-19 scientific committee. *NATURE* <https://www.nature.com/articles/d43978-021-00015-8>
- Tarro G. 2020a. Cell Immunity, Air Transmission and Therapy Approach for COVID-19. *International Journal of Current Research*. Vol. 12, Issue, 07, pp.12671-12674.
- Tarro G. 2020b. Different background of immunological response according to previous zoonotic experience with coronavirus. *International Journal of Development Research*, vol. 10, issue 10, pp. 41650-41651.
- Tarro G. 2020c. Pathogenesis of COVID-19 and the Body's Responses. *International Journal of Recent Scientific Research*. Vol. 11, Issue, 03 (D), pp. 37940-37942.
- Tarro G. 2020d. Further News on Coronavirus COVID-19 from Italy. *International Journal of Current Research*. Vol. 12, Issue, 04, pp.10260-10263.
- Tarro G. 2020e. The New Coronavirus from the Chinese City of Wuhan. *International Journal of Recent Scientific Research*. Vol. 11, Issue, 01(D), pp. 36901-36902.
- Tarro G. 2020f. The Spread of the New Coronavirus. *Asian Journal of Science and Technology*. Vol. 11, Issue, 03, pp.10863-10865.
- Tarro G. 2021. Old Therapies for New Epidemics. *International Journal of Current Research*, vol. 13, issue 01, pp. 15580-15581.
- Trapanese E, Salvatore V, Lamberti R and Tarro G. Lung Ultrasound Combined with D-Dimer Testing for Early Detection of Pulmonary Intravascular Coagulopathy in COVID-19 Pneumonia. *International Journal of Current Research*. Vol. 12, Issue, 08, pp.13199-13201, August, 2020.
- Van-Tam J. COVID: Vaccinated people may spread virus, says Van-Tam. <https://www.bbc.com/news/uk-55784199>, January 24, 2021.
- Zhang L, Alexsia R, Khalil A *et al* 2020. SARS-CoV-2 RNA reverse-transcribed and integrated into the human genome. *BioRxiv*.

\*\*\*\*\*