

**Study Group AIDS-therapy** c/o F. de Fries Juliastr. 8 8032 Zürich

To those affected, their doctors and caretakers

To groups and institution

To politicians

To Media

Zürich 30<sup>th</sup> March 2021

ref. **How particulate matter from wildfires, traffic and combustion augment the emergence of Covid-19**

Dear contemporaries

As current studies show, forest fires in California, the Amazon region and the Pantanal have led to a sharp increase in particulate matter emissions, with the consequence of a high incidence of Covid-19 diseases, serious disease courses and increased deaths in neighboring and more distant regions.

**[\[PDF\] Wildfire and COVID-19 pandemic: effect of environmental pollution PM-2.5 and carbon monoxide on the dynamics of daily cases and deaths due to SARS-COV ...](#)**

[PDF] [researchgate.net](#)

**[Spatiotemporal impacts of COVID-19 on air pollution in California, USA](#)**

[HTML] [nih.gov](#)

**[Wildfire Smoke Exposure: Covid19 Comorbidity?](#)**

PDF] [mdpi.com](#)

**[US particulate matter air quality improves except in wildfire-prone areas](#)**

PDF] [pnas.org](#)Free from Publisher

**[Correlation between environmental pollution indicators and COVID-19 pandemic: a brief study in Californian context](#)**

[HTML] [nih.gov](#)

Particularly affected are populations who work in professions that are more closely associated with high emissions of pollutants and many personal contacts, and who live in places with high environmental pollution not offering adequate sanitary facilities and enough space in areas with only poor access to health care, fresh Food and professional education. Accordingly, in the USA today we speak of a systemic racism.

### **Who among the elderly is most vulnerable to exposure to and health risks of fine particulate matter from wildfire smoke?**

[HTML] [oup.com](#)

### **HTML] A Community Case Study on Geographic, Environmental, and Social Health Disparities in COVID-19 Disease: Yakima, Washington**

HTML] [scirp.org](#)

### **Convergence of COVID-19 and chronic air pollution risks: Racial/ethnic and socioeconomic inequities in the US**

[HTML] [nih.gov](#)

### **California's COVID-19 economic shutdown reveals the fingerprint of systemic environmental racism**

[PDF] [osf.io](#)

### **Racial capitalism within public health—how occupational settings drive COVID-19 disparities**

HTML] [nih.gov](#)

### **[HTML] Association of poor housing conditions with COVID-19 incidence and mortality across US counties**

[HTML] [plos.org](#)

### **The effects of increased pollution on COVID-19 cases and deaths**

HTML] [nih.gov](#)

### **Obesity, malnutrition and trace elements deficiency in the covid-19 pandemic: an overview**

[HTML] [nih.gov](#)

In Brazil, extensive slash and burn operations in the Amazon region by landowners have led to further global warming and a strong emergence of particulate matter emissions, which subsequently led to the rapid spread of SARS Cov-2 infections, serious disease courses and the formation of new mutants in neighboring regions, and finally reaching more distant cities such as Sao Paulo, where they increased the existing content of particulate matter in outdoor and indoor areas, which promotes the transmission of SARS-Cov-2. In Brazil, extensive slash and burn operations in the Amazon region by landowners have led to further global warming and a strong emergence of particulate matter emissions, which subsequently led to the rapid spread of SARS Cov-2 infections, serious disease courses and the formation of new mutants in neighboring regions, and finally reaching more distant cities such as Sao Paulo, where they increased the existing content of particulate matter in outdoor and indoor areas, which promotes the transmission of SARS-Cov-2.

### **[How do Brazilian fires affect air pollution and public health?](#)**

[PDF] [wiley.com](#)

### **[Spread of SARS-CoV-2 through Latin America and the Caribbean region: a look from its economic conditions, climate and air pollution indicators](#)**

[HTML] [nih.gov](#)

### **[\[PDF\] Deforestation, Air Pollution and Brazilian COVID-19 Variant](#)**

[PDF] [researchgate.net](#)

### **[\[HTML\] ... of biomass-burning, urban, and biogenic emissions to the concentrations and light-absorbing properties of particulate matter in central Amazonia during the ...](#)**

HTML] [copernicus.org](#)

### **[Rescue Brazil's burning Pantanal wetlands](#)**

[PDF] [researchgate.net](#)

### **[Source apportionment of fine particulate matter by positive matrix factorization in the metropolitan area of São Paulo, Brazil](#)**

[PDF] [usp.br](#)

### **[\[PDF\] SARS-CoV-2 and the Pollution Exposure of the Population Near to an Industrial area on the Metropolitan Region in São Paulo State, Brazil](#)**

[PDF] [researchsquare.com](https://www.researchsquare.com)

**[Exploratory assessment of the occurrence of SARS-CoV-2 in aerosols in hospital facilities and public spaces of a metropolitan center in Brazil](#)**

[HTML] [nih.gov](https://www.nih.gov)

The temporary improvement in air quality caused by the lockdown revealed in one fell swoop its importance for the health of the population and the economic development of a region.

**[Air quality variations in Northern South America during the COVID-19 lockdown](#)**

[PDF] [researchgate.net](https://www.researchgate.net)

**[Covid-19 lockdowns, income distribution, and food security: An analysis for South Africa](#)**

[HTML] [sciencedirect.com](https://www.sciencedirect.com)

**[Improved air quality and associated mortalities in India under COVID-19 lockdown](#)**

[HTML] [nih.gov](https://www.nih.gov)

**[Mobility restrictions and air quality under COVID-19 pandemic in São Paulo, Brazil](#)**

[PDF] [preprints.org](https://www.preprints.org)

**[Air pollution improvement and mortality rate during COVID-19 pandemic in India: global intersectional study](#)**

[HTML] [springer.com](https://www.springer.com)

**[Impact of lockdown measures to combat Covid-19 on air quality over western Europe](#)**

[HTML] [sciencedirect.com](https://www.sciencedirect.com)

**[Air quality during the COVID-19: PM2.5 analysis in the 50 most polluted capital cities in the world](#)**

[HTML] [nih.gov](https://www.nih.gov)

As studies from various countries show, high levels of particulate matter are often associated with increased temperatures, high ozone levels and increased numbers of Covid-19. Accordingly, the measurement of virus components on fine dust particles is proposed as an early indicator for the spread of Covid-19.

### **[Particulate matter in the summer season and its relation to synoptic conditions and regional climatic stress—the case of Haifa, Israel](#)**

[PDF] [researchgate.net](#)

### **[Co-occurrence of extremes in surface ozone, particulate matter, and temperature over eastern North America](#)**

[PDF] [pnas.org](#)

### **[Air pollution and Covid-19: the role of particulate matter in the spread and increase of Covid-19's morbidity and mortality](#)**

[PDF] [mdpi.com](#)

### **[Assessment of the potential role of atmospheric particulate pollution and airborne transmission in intensifying the first wave pandemic impact of SARS-CoV-2 ...](#)**

[HTML] [springer.com](#)

### **[... role of atmospheric particulate pollution and airborne transmission in intensifying the first wave pandemic impact of SARS-CoV-2/COVID-19 in Northern Italy](#)**

[HTML] [springer.com](#)

### **[Searching for SARS-COV-2 on particulate matter: a possible early indicator of COVID-19 epidemic recurrence](#)**

[HTML] [mdpi.com](#)

### **[Exceedances and trends of particulate matter \(PM<sub>2.5</sub>\) in five Indian megacities](#)**

[HTML] [nih.gov](#)

### **[On the morphology and composition of particulate matter in an urban environment](#)**

[HTML] [nih.gov](#)

At the same time a close connection between air pollution and viral load can be seen, which is responsible for the severe course of the disease and the formation of mutants, and it becomes clear that PM particles, which are known to reflect sunlight, are the main drivers of global warming.

### **[Understanding the heterogeneity of adverse COVID-19 outcomes: the role of poor quality of air and lockdown decisions](#)**

[PDF] [gioel.com](#)

### **[Pandemic meets pollution: poor air quality increases deaths by COVID-19](#)**

[PDF] [econstor.eu](#)

### **[Drivers for the poor air quality conditions in North China Plain during the COVID-19 outbreak](#)**

[HTML] [nih.gov](#)

### **[Regional and global contributions of air pollution to risk of death from COVID-19](#)**

HTML] [oup.com](#)

### **[COVID-19 and air pollution: A dangerous association?](#)**

[HTML] [nih.gov](#)

### **[The role of air pollution \(PM and NO<sub>2</sub>\) in COVID-19 spread and lethality: a systematic review](#)**

[HTML] [nih.gov](#)

### **[Particulate matter \(PM 2.5\) as a potential SARS-CoV-2 carrier](#)**

[HTML] [nature.com](#)

### **[Effects of chronic exposure to ambient air pollutants on COVID-19 morbidity and mortality-A lesson from OECD countries](#)**

[HTML] [nih.gov](#)

### **[Higher virulence of COVID-19 in the air-polluted regions of eight severely affected countries](#)**

PDF] [medrxiv.org](https://medrxiv.org)

**[HTML] [Peaks of fine particulate matter may modulate the spreading and virulence of COVID-19](#)**

[HTML] [springer.com](https://www.springer.com)

**Long-term exposure to fine particulate matter and hospitalization in COVID-19 patients**

[HTML] [resmedjournal.com](https://www.resmedjournal.com)

**[PDF] [Geophysical consequences of tropospheric particulate heating: Further evidence that anthropogenic global warming is principally caused by particulate ...](#)**

[PDF] [semanticscholar.org](https://www.semanticscholar.org)

Means for reducing particulate matter emissions are now being examined in more detail and it becomes evident that individual tree species can neutralize particulate matter better than others. As new studies show, respiratory masks emit themselves fine particulate matter and thus trigger health disorders if they are carried continuously.

**Sustainable removal of particulate matter from diesel engine exhaust at low temperature using a plasma-catalytic method**

PDF] [researchgate.net](https://www.researchgate.net)

**[HTML] [Variation in tree species ability to capture and retain airborne fine particulate matter \(PM 2.5\)](#)**

[HTML] [nature.com](https://www.nature.com)

[https://pdmj.org/papers/masks\\_false\\_safety\\_and\\_real\\_dangers\\_part1/](https://pdmj.org/papers/masks_false_safety_and_real_dangers_part1/)

[https://pdmj.org/papers/masks\\_false\\_safety\\_and\\_real\\_dangers\\_part2/](https://pdmj.org/papers/masks_false_safety_and_real_dangers_part2/)

[https://pdmj.org/papers/masks\\_false\\_safety\\_and\\_real\\_dangers\\_part3/](https://pdmj.org/papers/masks_false_safety_and_real_dangers_part3/)

[https://pdmj.org/papers/masks\\_false\\_safety\\_and\\_real\\_dangers\\_part4/](https://pdmj.org/papers/masks_false_safety_and_real_dangers_part4/)

Although PM emissions were shown at the beginning of the pandemic in studies from Wuhan as a crucial factor in the formation of the Covid-19 disease, which made the connection between the severe course of the disease, previous illnesses and PM emissions obvious, this was consistently hidden from

the start by the German Federal Government and the virologist Christian Drosten, who quickly developed a PCR test for SARS-Cov-2 on the basis of virus particles, without being able to isolate or characterize the entire virus.

Many studies published since then on the role of particulate matter in the building of Covid-19 and the serious course of the disease in China, northern Italy, Spain, England, India, the USA and other countries could not change this view anymore such as also many tests from around the world on the effect of particulate matter on the epithelial tissues of the lungs, the cardiovascular system, the brain and the internal organs, which showed that even particulate matter alone could cause a continuous blocking of the immune reactions in these tissues and the increased formation of angiotensin-converting enzyme 2 (ACE2), which acts as an entry point for SARS viruses.

With the help of big media, the image, that the virus, without PM particles as a carrier and co-factor, could trigger a fatal infection through personal contacts and its accumulation on certain materials, whereby the immune system of the human host would not play an essential role, was hammered in continuously into the minds of millions.

The only way to contain the pandemic in this view is therefore on to this day to wear respiratory protection masks, the prohibition of personal contacts, and the interruption of infection chains through PCR tests, rapid tests and contact tracing. Whilst Austrian authorities want to establish a vaccination-certificate, which shows the result of antibody tests also occurring in persons, who have had the infection, German authorities want to establish a certificate on an European level, that only lists up the vaccinations received. Only this certificate should allow the holder travelling abroad and to go to concerts or football matches.

Measures to reduce the indispensable carrier substance particulate matter, which itself triggers chronic respiratory diseases and blocks defense reactions, in the short term outdoors through spatial and temporal restrictions on car traffic in inner cities and indoors in the interiors of daycare centers, schools, retirement homes, offices, shops and other workplaces by installing air cleaning devices were only seized in a few places, without studying the transmission of the virus in these places, not so disturb the ongoing course of economy.

Furthermore, governments in Europe and elsewhere are pretending that fine dust does not play any role in the spread of SARS-Cov-2 and an increased viral load, which promotes the severe course of the disease as well as the formation of new mutants.

If now mutants are rampant, which cannot be optimally neutralized by vaccinations, and may trigger reinfections with a milder course in individual groups of vaccinated people, who can pass it on to others, then all that remains according to this view is the closure of public life and businesses with increasingly serious consequences for the health and economic livelihood of the citizens who have to stay at home, cannot visit churches, cinemas, theaters, concerts and outdoor terraces of restaurants, and should no longer travel to other places. Recent tests shown that antibodies against SARS-Cov-2, which are formed after vaccinations, can decrease again in individual groups within a short time if their members have to take medication for chronic diseases and that after vaccination often a lability in immune reactions occurs.

If the virus can spread on outdoor terraces of inns between people sitting at a distance, as is now implied by government officials calling again for a complete lockdown, then this would mean that it can spread in cities and on the countryside under the open sky anywhere; a situation that government speeches all over the world probably not prefer to know about officially because it would mean that working in many places would no longer be possible.

The non-opening of the terraces, on which a perfect contact tracing was possible thanks to registration, can therefore only be understood as a gesture to discipline the population, which shows that the rulers with their policies to deny the role of particulate matter in the Covid-19 pandemic have failed, so that they can only hesitate that a halt to the pandemic could be achieved again through a total lockdown. The non-opening of the terraces, on which a perfect contact tracing was possible thanks to registration, can therefore only be understood as a gesture to discipline the population, which shows that the rulers with their policies to deny the role of particulate matter in the Covid-19 pandemic have failed, so that they can only hesitate that a halt to the pandemic could be achieved again through a total lockdown.

With the availability of rapid tests, the reliability of which is obviously limited, research has now moved into the focus on contacts in the workplace, which have not been an issue for a long time, and into the transmission of the virus by children and adolescents.

Children and adolescents, who in many cases show no or only very weak symptoms and usually only a low viral load after the infection, are now seen as silent carriers of the virus who, like adults, should be vaccinated as soon as possible.

The fact that they also suffer physical damage and immune deficiencies in the event of long-term PM emissions, and that high PM levels augment the transferability of SARS Cov-2 is still no reason for them to install air purification devices

in daycare centers and schools. With the availability of rapid tests, the reliability of which is obviously limited, research has now moved into the focus of research on contacts in the workplace, which have not been an issue for a long time, and the transmission of the virus by children and adolescents.

The situation of new mutants turning up, which certain vaccinated people can no longer successfully fight off, now gives a boost to antiviral substances and synthetic antibodies that have been developed since some time and now are being tested in clinical studies.

After vaccination was previously propagated to be the only and final means against the pandemic, antiviral substances should now also to be used and thus may open up a new field of business. Antiviral substances from AIDS therapy, which have already been widely used in Covid-19 patients, are currently no longer administered frequently, after the WHO had declared them to be ineffective. Due to their strong pro-oxidative effects, they may promote dysfunctions that characterize Covid-19.

All of these findings make it clear at one flow that the Covid-19 crisis can only be resolved by effective measures to reduce particulate matter based on daily measurements of particulate matter on a local and regional level.

Studiengruppe AIDS-Therapie

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**[\[HTML\] Upregulation of ACE2 and TMPRSS2 by particulate matter and idiopathic pulmonary fibrosis: a potential role in severe COVID-19](#)**

[HTML] [biomedcentral.com](https://www.biomedcentral.com)

**[Traffic-derived particulate matter and angiotensin-converting enzyme 2 expression in human airway epithelial cells](#)**

[PDF] [biorxiv.org](https://www.biorxiv.org)

**Age-dependent immune response to the Biontech/Pfizer BNT162b2 COVID-19 vaccination**

<https://www.medrxiv.org/content/10.1101/2021.03.03.21251066v1>

[HTML] [BNT162b2 mRNA Covid-19 vaccine in a nationwide mass vaccination setting](#)

[HTML] [nejm.org](http://nejm.org)

[HTML] [Sensitivity of anti-SARS-CoV-2 serological assays in a high-prevalence](#)

[HTML] [springer.com](http://springer.com)

[HTML] [Effect of long-term exposure to fine particulate matter on lung function decline and risk of chronic obstructive pulmonary disease in Taiwan: a longitudinal ...](#)

[HTML] [sciencedirect.com](http://sciencedirect.com)

[Long-Term Exposure to Ambient Fine Particulate Matter \(2.5\) and Lung Function in Children, Adolescents, and Young Adults: A Longitudinal Cohort Study](#)

[PDF] [nih.gov](http://nih.gov)

[Indoor particulate matter and lung function in children](#)

[HTML] [nih.gov](http://nih.gov)

[HTML] [Children environmental exposure to particulate matter and polycyclic aromatic hydrocarbons and biomonitoring in school environments: a review on indoor ...](#)

[HTML] [sciencedirect.com](http://sciencedirect.com)

[HTML] [Ambient fine particulate matter inhibits innate airway antimicrobial activity in preschool children in e-waste areas](#)

[HTML] [sciencedirect.com](http://sciencedirect.com)

[HTML] [Preclinical evaluation of AT-527, a novel guanosine nucleotide prodrug with potent, pan-genotypic activity against hepatitis C virus](#)

[HTML] [plos.org](http://plos.org)

[REGN-COV2, a neutralizing antibody cocktail, in outpatients with Covid-19](#)

[HTML] [nih.gov](#)

**[HTML] [Real-World Effectiveness and Tolerability of Monoclonal Antibodies for Ambulatory Patients with Early COVID-19](#)**

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**[Monoclonal antibodies for treating COVID-19](#)**

**[COVID-19 vaccination: an attempt to control the pandemic](#)**

[PDF] [pulmonarychronicles.com](#)