

COVID Vaccines: Necessity, Efficacy and Safety

by Doctors for COVID Ethics

Abstract: COVID-19 vaccine manufacturers have been exempted from legal liability for vaccine-induced harm. It is therefore in the interests of all those authorising, enforcing and administering COVID-19 vaccinations to understand the evidence regarding the risks and benefits of these vaccines, since liability for harm will fall on them.

In short, the available evidence and science indicate that COVID-19 vaccines are unnecessary, ineffective and unsafe.

- **Necessity:** Immunocompetent individuals are protected against SARS-CoV-2 by cellular immunity. Vaccinating low-risk groups is therefore unnecessary. For immunocompromised individuals who do fall ill with COVID-19 there is a range of medical treatments that have been proven safe and effective. Vaccinating the vulnerable is therefore equally unnecessary. Both immunocompetent and vulnerable groups are better protected against variants of SARS-CoV-2 by naturally acquired immunity and by medication than by vaccination.
- **Efficacy:** Covid-19 vaccines lack a viable mechanism of action against SARS-CoV-2 infection of the airways. Induction of antibodies cannot prevent infection by an agent such as SARS-CoV-2 that invades through the respiratory tract. Moreover, none of the vaccine trials have provided any evidence that vaccination prevents transmission of the infection by vaccinated individuals; urging vaccination to “protect others” therefore has no basis in fact.
- **Safety:** The vaccines are dangerous to both healthy individuals and those with pre-existing chronic disease, for reasons such as the following: risk of lethal and non-lethal disruptions of blood clotting including bleeding disorders, thrombosis in the brain, stroke and heart attack; autoimmune and allergic reactions; antibody-dependent enhancement of disease; and vaccine impurities due to rushed manufacturing and unregulated production standards.

The **risk-benefit calculus** is therefore clear: the experimental vaccines are needless, ineffective and dangerous. Actors authorising, coercing or administering experimental COVID-19 vaccination are exposing populations and patients to serious, unnecessary, and unjustified medical risks.

1. The vaccines are unnecessary

1. Multiple lines of research indicate that immunocompetent people display “**robust**” and **lasting** cellular (T cell) immunity to SARS-CoV viruses [1], including SARS-CoV-2 and its variants [2]. T cell protection stems not only from exposure to SARS-CoV-2 itself, but from cross-reactive immunity following previous exposure to common cold and SARS coronaviruses [1,3–10]. Such immunity was detectable after infections up to 17 years prior [1,3]. Therefore, immunocompetent people do not need vaccination against SARS-Cov-2.
2. **Natural T-Cell immunity provides stronger and more comprehensive protection** against all SARS-CoV-2 strains than vaccines, because naturally primed immunity recognises multiple virus epitopes and costimulatory signals, not merely a single (spike) protein. Thus, immunocompetent people are better protected against SARS-CoV-2 and any variants that may arise by their own immunity than by the current crop of vaccines.
3. The vaccines have been touted as a means to prevent asymptomatic infection [11], and by extension “asymptomatic transmission.” However, “**asymptomatic transmission**” is an **artefact** of invalid and unreliable PCR test procedures and interpretations, leading to high false-positive rates [12–15]. Evidence indicates that PCR-positive, asymptomatic people are healthy false-positives, not carriers. A comprehensive study of **9,899,828** people in China found that asymptomatic individuals testing positive for COVID-19 never infected others [16]. In contrast, the papers cited by the Centre for Disease Control [17,18] to justify claims of asymptomatic transmission are based on hypothetical models, not empirical studies; they present assumptions and estimates rather than evidence. Preventing asymptomatic infection is not a viable rationale for promoting vaccination of the general population.
4. In most countries, **most people now have immunity to SARS-CoV-2** [19]. Depending on their degree of previously acquired cross-immunity, they will have had no symptoms, mild and uncharacteristic symptoms, or more severe symptoms, possibly including anosmia (loss of sense of smell) or other somewhat characteristic signs of the COVID-19 disease. Regardless of disease severity, they will now have sufficient immunity to be protected from severe disease in the event of renewed exposure. This majority of the population will not benefit at all from being vaccinated.
5. **Population survival of COVID-19 exceeds 99.8%** globally [20–22]. In countries that have been intensely infected over several months, less than 0.2% of the population have died and had their deaths classified as ‘with covid19’. COVID-19 is also typically a mild to moderately severe illness. Therefore, the overwhelming majority of people are not at risk from COVID-19 and do not require vaccination for their own protection.
6. In those susceptible to severe infection, **Covid-19 is a treatable illness**. A convergence of evidence indicates that early treatment with existing drugs reduces hospitalisation and mortality by ~85% and 75%, respectively [23–27]. These drugs include many tried and true antiinflammatory, antiviral, and anticoagulant medications, as well as monoclonal antibodies, zinc, and vitamins C and D. Industry and government decisions to sideline

such proven treatments through selective research support [24], regulatory bias, and even outright sanctions against doctors daring to use such treatments on their own initiative, have been out of step with existing laws, standard medical practice, and research; the legal requirement to consider real world evidence has fallen by the wayside [28]. The systematic denial and denigration of these effective therapies has underpinned the spurious justification for the emergency use authorisation of the vaccines, which requires that “no standard acceptable treatment is available” [29]. Plainly stated, vaccines are not necessary to prevent severe disease.

2. The vaccines lack efficacy

1. At a mechanistic level, the concept of immunity to COVID-19 via antibody induction, as per **COVID-19 vaccination, is medical nonsense**. Airborne viruses such as SARS-CoV-2 enter the body via the airways and lungs, where antibody concentrations are too low to prevent infection. Vaccine-induced antibodies primarily circulate in the bloodstream, while concentrations on the mucous membranes of lungs and airways is low. Given that COVID-19 primarily spreads and causes disease by infecting these mucous membranes, vaccines miss the immunological mark. The documents submitted by the vaccine manufacturers to the various regulatory bodies contain no evidence that vaccination prevents airway infection, which would be crucial for breaking the chain of transmission. Thus, vaccines are immunologically inappropriate for COVID-19.
2. **Medium to long-term vaccine efficacy is unknown**. Phase 3, medium term, 24-month trials will not be complete until 2023: There is no medium-term or long term longitudinal data regarding COVID-19 vaccine efficacy.
3. **Short term data has not established prevention of severe disease**. The European Medicines Agency has noted of the Comirnaty (Pfizer mRNA) vaccine that severe COVID-19 cases “were rare in the study, and statistically certain conclusion cannot be drawn” from it [30]. Similarly, the Pfizer document submitted to the FDA [31] concludes that efficacy against mortality could not be demonstrated. Thus, the vaccines have not been shown to prevent death or severe disease even in the short term.
4. The **correlates of protection against COVID-19 are unknown**. Researchers have not yet established how to measure protection against COVID-19. As a result, efficacy studies are stabbing around in the dark. After completion of Phase 1 and 2 studies, for instance, a paper in the journal Vaccine noted that “without understanding the correlates of protection, it is impossible to currently address questions regarding vaccine-associated protection, risk of COVID-19 reinfection, herd immunity, and the possibility of elimination of SARS-CoV-2 from the human population” [32]. Thus, Vaccine efficacy cannot be evaluated because we have not yet established how to measure it.

3. The vaccines are dangerous

1. Just as smoking could be and was predicted to cause lung cancer based on first principles, **all gene-based vaccines can be expected to cause blood clotting and bleeding disorders** [33], based on their molecular mechanisms of action. Consistent with this, diseases of this kind have been observed across age groups, leading to temporary vaccine suspensions around the world: The vaccines are not safe.
2. Contrary to claims that blood disorders post-vaccination are “rare”, many **common vaccine side effects** (headaches, nausea, vomiting and haematoma-like “rashes” over the body) **may indicate thrombosis and other severe abnormalities**. Moreover, vaccine-induced diffuse micro-thromboses in the lungs can mimic pneumonia and may be misdiagnosed as COVID-19. Clotting events currently receiving media attention are likely just the “tip of a huge iceberg” [34]: The vaccines are not safe.
3. Due to immunological priming, risks of **clotting, bleeding and other adverse events can be expected to increase with each re-vaccination** and each intervening coronavirus exposure. Over time, whether months or years [35], this renders both vaccination and coronaviruses dangerous to young and healthy age groups, for whom without vaccination COVID-19 poses no substantive risk. Since vaccine roll-out, COVID-19 incidence has risen in numerous areas with high vaccination rates [36–38]. Furthermore, multiple series of COVID-19 fatalities have occurred shortly after the onset vaccinations in senior homes [39,40]. These cases may have been due not only to antibody-dependent enhancement but also to a general immunosuppressive effect of the vaccines, which is suggested by the increased occurrence of Herpes zoster in certain patients [41]. Immunosuppression may have caused a previously asymptomatic infection to become clinically manifest. Regardless of the exact mechanism responsible for these reported deaths, we must expect that the vaccines will increase rather than decrease lethality of COVID-19 — the vaccines are not safe.
4. **The vaccines are experimental by definition**. They will remain in Phase 3 trials until 2023. Recipients are human subjects entitled to free informed consent under Nuremberg and other protections, including the Parliamentary Assembly of the Council of Europe’s resolution 2361 [42] and the FDA’s terms of emergency use authorisation [29]. With respect to safety data from Phase 1 and 2 trials, in spite of initially large sample sizes the journal Vaccine reports that, “the vaccination strategy chosen for further development may have only been given to as few as 12 participants” [32]. With such extremely small sample sizes, the journal notes that, “larger Phase 3 studies conducted over longer periods of time will be necessary” to establish safety. The risks that remain to be evaluated in Phase 3 trials into 2023, with entire populations as subjects, include not only thrombosis and bleeding abnormalities, but other autoimmune responses, allergic reactions, unknown tropisms (tissue destinations) of lipid nanoparticles [35], antibody-dependent enhancement [43–46] and the impact of

rushed, questionably executed, poorly regulated [47] and reportedly inconsistent manufacturing methods, conferring risks of potentially harmful impurities such as uncontrolled DNA residues [48]. The vaccines are not safe, either for recipients or for those who administer them or authorise their use.

5. Initial experience might suggest that the adenovirus-derived vaccines (AstraZeneca/Johnson & Johnson) cause graver adverse effects than the mRNA (Pfizer/Moderna) vaccines. However, upon repeated injection, the former will soon induce antibodies against the proteins of the adenovirus vector. These antibodies will then neutralize most of the vaccine virus particles and cause their disposal before they can infect any cells, thereby limiting the intensity of tissue damage. In contrast, in the mRNA vaccines, there is no protein antigen for the antibodies to recognize. Thus, regardless of the existing degree of immunity, the vaccine mRNA is going to reach its target — the body cells. These will then express the spike protein and subsequently suffer the full onslaught of the immune system. With the mRNA vaccines, the risk of severe adverse events is virtually guaranteed to increase with every successive injection. In the long term, they are therefore even more dangerous than the vector vaccines. Their apparent preferment over the latter is concerning in the highest degree; these vaccines are not safe.

4. Ethics and legal points to consider

1. Conflicts of interest abound in the scientific literature and within organisations that recommend and promote vaccines, while demonising alternate strategies (reliance on natural immunity and early treatment). Authorities, doctors and medical personnel need to protect themselves by evaluating the sources of their information for conflicts of interest extremely closely.
2. Authorities, doctors and medical personnel need to be similarly careful not to ignore the credible and independent literature on vaccine necessity, safety and efficacy, given the foreseeable mass deaths and harms that must be expected unless the vaccination campaign is stopped.
3. Vaccine manufacturers have exempted themselves from legal liability for adverse events for a reason. When vaccine deaths and harms occur, liability will fall to those responsible for the vaccines' authorisation, administration and/or coercion via vaccine passports, none of which can be justified on a sober, evidence-based risk-benefit analysis.
4. All political, regulatory and medical actors involved in COVID-19 vaccination should familiarise themselves with the Nuremberg code and other legal provisions in order to protect themselves.

References

1. Le Bert, N.; Tan, A.T.; Kunasegaran, K.; Tham, C.Y.L.; Hafezi, M.; Chia, A.; Chng, M.H.Y.; Lin, M.; Tan, N.; Linster, M.; Chia, W.N.; Chen, M.I.; Wang, L.; Ooi, E.E.; Kalimuddin, S.; Tambyah, P.A.; Low, J.G.; Tan, Y. and Bertozzi, A. (2020) SARS-CoV-2-specific T cell immunity in cases of COVID-19 and SARS, and uninfected controls. [Nature 584:457–462](#)
2. Tarke, A.; Sidney, J.; Methot, N.; Zhang, Y.; Dan, J.M.; Goodwin, B.; Rubiro, P.; Sutherland, A.; da Silva Antunes, R.; Frazier, A. and al., e. (2021) Negligible impact of SARS-CoV-2 variants on CD4+ and CD8+ T cell reactivity in COVID-19 exposed donors and vaccinees. [bioRxiv -x-x](#)
3. Anonymous, (2020) [Scientists uncover SARS-CoV-2-specific T cell immunity in recovered COVID-19 and SARS patients.](#)
4. Beasley, D. (2020) [Scientists focus on how immune system T cells fight coronavirus in absence of antibodies.](#)
5. Bozkus, C.C. (2020) SARS-CoV-2-specific T cells without antibodies. [Nat. Rev. Immunol. 20:463](#)
6. Grifoni, A.; Weiskopf, D.; Ramirez, S.I.; Mateus, J.; Dan, J.M.; Moderbacher, C.R.; Rawlings, S.A.; Sutherland, A.; Premkumar, L.; Jadi, R.S. and al., e. (2020) Targets of T Cell Responses to SARS-CoV-2 Coronavirus in Humans with COVID-19 Disease and Unexposed Individuals. [Cell 181:1489–1501.e15](#)
7. Mateus, J.; Grifoni, A.; Tarke, A.; Sidney, J.; Ramirez, S.I.; Dan, J.M.; Burger, Z.C.; Rawlings, S.A.; Smith, D.M.; Phillips, E. and al., e. (2020) Selective and cross-reactive SARS-CoV-2 T cell epitopes in unexposed humans. [Science 370:89–94](#)
8. McCurry-Schmidt, M. (2020) [Exposure to common cold coronaviruses can teach the immune system to recognize SARS-CoV-2.](#)
9. Palmer, S.; Cunniffe, N. and Donnelly, R. (2021) COVID-19 hospitalization rates rise exponentially with age, inversely proportional to thymic T-cell production. [J. R. Soc. Interface 18:20200982](#)
10. Sekine, T.; Perez-Potti, A.; Rivera-Ballesteros, O.; Strålin, K.; Gorin, J.; Olsson, A.; Llewellyn-Lacey, S.; Kamal, H.; Bogdanovic, G.; Muschiol, S. and al., e. (2020) Robust T Cell Immunity in Convalescent Individuals with Asymptomatic or Mild COVID-19. [Cell 183:158–168.e14](#)
11. Drake, J. (2021) [Now We Know: Covid-19 Vaccines Prevent Asymptomatic Infection, Too.](#)
12. Bossuyt, P.M. (2020) Testing COVID-19 tests faces methodological challenges. [Journal of clinical epidemiology 126:172–176](#)
13. Jefferson, T.; Spencer, E.; Brassey, J. and Heneghan, C. (2020) Viral cultures for COVID-19 infectivity assessment. Systematic review. [Clin. Infect. Dis. ciaa1764:x-x](#)
14. Borger, P.; Malhotra, R.K.; Yeadon, M.; Craig, C.; McKernan, K.; Steger, K.; McSheehy, P.; Angelova, L.; Franchi, F.; Binder, T.; Ullrich, H.; Ohashi, M.; Scoglio, S.; Doesburg-van Kleffens, M.; Gilbert, D.; Klement, R.J.; Schrüfer, R.; Pieksma, B.W.; Bonte, J.; Dalle Carbonare, B.H.; Corbett, K.P. and Kämmer, U.

- (2020) [External peer review of the RTPCR test to detect SARS-CoV-2 reveals 10 major scientific flaws at the molecular and methodological level: consequences for false positive results.](#)
15. Mandavilli, A. (2020) [Your Coronavirus Test Is Positive. Maybe It Shouldn't Be.](#)
 16. Cao, S.; Gan, Y.; Wang, C.; Bachmann, M.; Wei, S.; Gong, J.; Huang, Y.; Wang, T.; Li, L.; Lu, K.; Jiang, H.; Gong, Y.; Xu, H.; Shen, X.; Tian, Q.; Lv, C.; Song, F.; Yin, X. and Lu, Z. (2020) Post-lockdown SARS-CoV-2 nucleic acid screening in nearly ten million residents of Wuhan, China. [Nat. Commun. 11:5917](#)
 17. Moghadas, S.M.; Fitzpatrick, M.C.; Sah, P.; Pandey, A.; Shoukat, A.; Singer, B.H. and Galvani, A.P. (2020) The implications of silent transmission for the control of COVID-19 outbreaks. [Proc. Natl. Acad. Sci. U. S. A. 117:17513–17515](#)
 18. Johansson, M.A.; Quandelacy, T.M.; Kada, S.; Prasad, P.V.; Steele, M.; Brooks, J.T.; Slayton, R.B.; Biggerstaff, M. and Butler, J.C. (2021) SARS-CoV-2 Transmission From People Without COVID-19 Symptoms. [JAMA network open 4:e2035057](#)
 19. Yeadon, M. (2020). What SAGE got wrong. [Lockdown Skeptics.](#)
 20. Ioannidis, J.P.A. (2020) Global perspective of COVID - 19 epidemiology for a full - cycle pandemic. [Eur. J. Clin. Invest. 50:x-x](#)
 21. Ioannidis, J.P.A. (2021) Reconciling estimates of global spread and infection fatality rates of COVID - 19: An overview of systematic evaluations. [Eur. J. Clin. Invest. -:x-x](#)
 22. CDC, (2020) [Science Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2.](#)
 23. Orient, J.; McCullough, P. and Vliet, E. (2020) [A Guide to Home-Based COVID Treatment.](#)
 24. McCullough, P.A.; Alexander, P.E.; Armstrong, R.; Arvinte, C.; Bain, A.F.; Bartlett, R.P.; Berkowitz, R.L.; Berry, A.C.; Borody, T.J.; Brewer, J.H.; Brufsky, A.M.; Clarke, T.; Derwand, R.; Eck, A.; Eck, J.; Eisner, R.A.; Fareed, G.C.; Farella, A.; Fonseca, S.N.S.; Geyer, C.E.; Gonnering, R.S.; Graves, K.E.; Gross, K.B.V.; Hazan, S.; Held, K.S.; Hight, H.T.; Immanuel, S.; Jacobs, M.M.; Ladapo, J.A.; Lee, L.H.; Littell, J.; Lozano, I.; Mangat, H.S.; Marble, B.; McKinnon, J.E.; Merritt, L.D.; Orient, J.M.; Oskoui, R.; Pompan, D.C.; Procter, B.C.; Prodromos, C.; Rajter, J.C.; Rajter, J.; Ram, C.V.S.; Rios, S.S.; Risch, H.A.; Robb, M.J.A.; Rutherford, M.; Scholz, M.; Singleton, M.M.; Tumlin, J.A.; Tyson, B.M.; Urso, R.G.; Victory, K.; Vliet, E.L.; Wax, C.M.; Wolkoff, A.G.; Wooll, V. and Zelenko, V. (2020) Multifaceted highly targeted sequential multidrug treatment of early ambulatory high-risk SARS-CoV-2 infection (COVID-19). [Reviews in cardiovascular medicine 21:517–530](#)
 25. Procter, {B.C.}; {APRN}, {C.R.}; {PA}-C, {V.P.}; {PA}-C, {E.S.}; {PA}-C, {C.H. and McCullough, {P.A. (2021) Early Ambulatory Multidrug Therapy Reduces Hospitalization and Death in High-Risk Patients with SARS-CoV-2 (COVID-19). [International journal of innovative research in medical science 6:219–221](#)
 26. McCullough, P.A.; Kelly, R.J.; Ruocco, G.; Lerma, E.; Tumlin, J.; Wheelan, K.R.; Katz, N.; Lepor, N.E.; Vijay, K.; Carter, H.; Singh, B.; McCullough, S.P.; Bhambi, B.K.; Palazzuoli, A.; De Ferrari, G.M.; Milligan, G.P.; Safder, T.; Tecson, K.M.; Wang, D.D.; McKinnon, J.E.; O'Neill, W.W.; Zervos, M. and Risch, H.A. (2021) Pathophysiological Basis and Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection. [Am. J. Med. 134:16–22](#)
 27. Anonymous, (2020) [Real-time database and meta analysis of 588 COVID-19 studies.](#)
 28. Hirschhorn, J.S. (2021) [COVID scandal: Feds ignored 2016 law requiring use of real world evidence.](#)
 29. Anonymous, (1998) [Emergency Use of an Investigational Drug or Biologic: Guidance for Institutional Review Boards and Clinical Investigators.](#)
 30. Anonymous, (2021) [EMA assessment report: Comirnaty.](#)
 31. Anonymous, (2020) [FDA briefing document: Pfizer-BioNTech COVID-19 Vaccine.](#)
 32. Giurgea, L.T. and Memoli, M.J. (2020) Navigating the Quagmire: Comparison and Interpretation of COVID-19 Vaccine Phase 1/2 Clinical Trials. [Vaccines 8:746](#)
 33. Bhakdi, S.; Chiesa, M.; Frost, S.; Griesz-Brisson, M.; Haditsch, M.; Hockertz, S.; Johnson, L.; Kämmerer, U.; Palmer, M.; Reiss, K.; Sönnichsen, A.; Wodarg, W. and Yeadon, M. (2021) [Urgent Open Letter from Doctors and Scientists to the European Medicines Agency regarding COVID-19 Vaccine Safety Concerns.](#)
 34. Bhakdi, S. (2021) [Rebuttal letter to European Medicines Agency from Doctors for Covid Ethics, April 1, 2021.](#)
 35. Ulm, J.W. (2020) [Rapid response to: Will covid-19 vaccines save lives? Current trials aren't designed to tell us.](#)
 36. Reimann, N. (2021) [Covid Spiking In Over A Dozen States — Most With High Vaccination Rates.](#)
 37. Meredith, S. (2021) [Chile has one of the world's best vaccination rates. Covid is surging there anyway.](#)
 38. Bhuyan, A. (2021) Covid-19: India sees new spike in cases despite vaccine rollout. [BMJ 372:n854](#)
 39. Morrissey, K. (2021) [Open letter to Dr. Karina Butler.](#)
 40. Anonymous, (2021) [Open Letter from the UK Medical Freedom Alliance: Urgent warning re Covid-19 vaccine-related deaths in the elderly and Care Homes.](#)
 41. Furer, V.; Zisman, D.; Kibari, A.; Rimar, D.; Paran, Y. and Elkayam, O. (2021) Herpes zoster following BNT162b2 mRNA Covid-19 vaccination in patients with autoimmune inflammatory rheumatic diseases: a case series. [Rheumatology -:x-x](#)
 42. Anonymous, (2021) [Covid-19 vaccines: ethical, legal and practical considerations.](#)

43. Tseng, C.; Sbrana, E.; Iwata-Yoshikawa, N.; Newman, P.C.; Garron, T.; Atmar, R.L.; Peters, C.J. and Couch, R.B. (2012) Immunization with SARS coronavirus vaccines leads to pulmonary immunopathology on challenge with the SARS virus. [*PLoS One* 7:e35421](#)
44. Bolles, M.; Deming, D.; Long, K.; Agnihothram, S.; Whitmore, A.; Ferris, M.; Funkhouser, W.; Gralinski, L.; Tatura, A.; Heise, M. and Baric, R.S. (2011) A double-inactivated severe acute respiratory syndrome coronavirus vaccine provides incomplete protection in mice and induces increased eosinophilic proinflammatory pulmonary response upon challenge. [*J. Virol.* 85:12201–15](#)
45. Weingartl, H.; Czub, M.; Czub, S.; Neufeld, J.; Marszal, P.; Gren, J.; Smith, G.; Jones, S.; Proulx, R.; Deschambault, Y.; Grudeski, E.; Andonov, A.; He, R.; Li, Y.; Copps, J.; Grolla, A.; Dick, D.; Berry, J.; Ganske, S.; Manning, L. and Cao, J. (2004) Immunization with modified vaccinia virus Ankara-based recombinant vaccine against severe acute respiratory syndrome is associated with enhanced hepatitis in ferrets. [*J. Virol.* 78:12672–6](#)
46. Czub, M.; Weingartl, H.; Czub, S.; He, R. and Cao, J. (2005) Evaluation of modified vaccinia virus Ankara based recombinant SARS vaccine in ferrets. [*Vaccine* 23:2273–9](#)
47. Tinari, S. (2021) The EMA covid-19 data leak, and what it tells us about mRNA instability. [*BMJ* 372:n627](#)
48. Anonymous, (2021) [Interview with Dr. Vanessa Schmidt-Krüger](#).