### Donations CP

#### CP: France, Germany, Sweden, Italy, and the United States should:

* substantially increase COVID vaccine production to meet the global demand
* sign bilateral intellectual property licensing contracts and engage in necessary knowledge sharing with low and middle-income countries to share vaccines
* donate all necessary vaccines at no cost to low and middle-income nations unable to license intellectual property rights

#### Global donations and increased domestic production solve

Yamey 21 [Gavin, Directs the Center for Policy Impact in Global Health at Duke University in Durham, North Carolina. “Rich Countries Should Tithe Their Vaccines” https://www.nature.com/articles/d41586-021-00470-9]

As I write this, 191 million vaccination shots against COVID-19 have been administered; more than three quarters were given in just 10 nations that account for 60% of the global gross domestic product. In some 130 nations with 2.5 billion people, not a single shot has been administered. High-income countries represent only 16% of the world’s population, but they have purchased more than half of all COVID-19 vaccine doses.

The US$4 billion that the White House pledged towards equitable vaccine distribution this month is a huge help in paying for doses for poorer nations. Reframing how vaccine deals are structured — and explained to the public in rich countries — could make this pledge even more powerful.

I live in the United States, so even though I am at low risk, I will be able to get vaccinated well ahead of many health workers and high-risk people in poorer nations.

This is unfair, and will prolong the pandemic. When SARS-CoV-2 transmission is wildly uncontrolled, the virus has more scope to evolve into dangerous variants. A COVID-19 outbreak anywhere could become an outbreak everywhere.

Why a pioneering plan to distribute COVID vaccines equitably must succeed

To help, rich countries should tithe their vaccine supply to poorer places and negotiate direct purchasing deals with vaccine manufacturers to increase supplies.

Many public-health workers strived to avoid the disparities we are seeing now. We knew that rich nations had hoarded vaccines during past outbreaks, such as the 2009 swine-flu pandemic. So, dozens of us working in global health tried — in long weekly Zoom calls for many months — to at least mitigate the hoarding and put a global sharing mechanism for COVID-19 vaccines in place. The result was COVID-19 Vaccines Global Access (COVAX) — co-led by Gavi, the Vaccine Alliance; the Coalition for Epidemic Preparedness Innovations; and the World Health Organization. It is a first-of-its-kind ‘buyers’ pool’ in which richer nations can collectively purchase vaccines, fund vaccine development and manufacturing and ensure that some of the supply will go to poorer countries.

Although around 190 nations have joined COVAX, about 3 dozen rich nations ended up buying most of their doses by way of direct deals with vaccine companies rather than through the COVAX pool. COVAX still expects to secure some 2 billion doses by the end of 2021, but richer countries have already bought 5.8 billion doses, often purchased before clinical trials were completed, through bilateral deals. COVAX is still getting pushed to the back of the queue.

What to do now? Richer nations should share their doses, stat. Perhaps for every nine doses they administer, they can donate one dose to COVAX. This falls far short of ‘equitable’, but it is within what is possible. This will help beyond dimming the chance of an outbreak from an imported variant that hoarded vaccines might have reduced efficacy against.

One analysis of vaccine nationalism (see go.nature.com/37wr), in which people in rich nations receive immediate vaccination and poorer nations are left behind for years, suggested that the global economy could lose US$9 trillion. Rich nations, whose exports would be suppressed, would bear half the cost. Disruption of global supply chains that provide parts for industry would continue.

COVID-19 vaccines: how to ensure Africa has access

Some nations are taking the lead. Norway is the first rich nation to have pledged to donate doses to the COVAX pool in parallel with vaccinating its citizens (the United Kingdom plans to donate superfluous doses after all its citizens have been vaccinated).

My colleagues and I used game theory to project what would happen if rich nations reconfigured their purchasing deals to increase the global vaccine supply (D. McAdams et al. BMJ Glob. Health 5, e003627; 2020). Currently, each vaccine purchase is a zero-sum game. But deals could include provisions that require vaccine makers to share knowledge and technology to boost production by other manufacturers. As a real-world example, the Serum Institute of India can manufacture the AstraZeneca–University of Oxford vaccine, providing doses for low- and middle-income countries.

An advanced purchase agreement might also finance risky investments that would speed up vaccine manufacturing. If one candidate fails in trials, the facility could be used for a different, successful vaccine, with a portion of the doses going to poorer countries. These deals create what economists call ‘positive spillovers’. With such collaboration, global vaccine distribution would no longer be a zero-sum game.

Some in rich countries might push back against sharing doses, arguing that a government needs to put its own citizens first and that no politician would risk giving doses away. But public polling in many of these nations shows that citizens want their governments to be more collaborative. A UK poll found that almost two-thirds of the public does not want rich countries to be prioritized for COVID-19 vaccination over poorer countries. And if the rich world continues to hoard vaccines, the global pandemic will drag on for perhaps as long as seven more years.

Another argument is that many poorer countries — such as Mongolia and Vietnam — have already curtailed their COVID-19 outbreaks using non-pharmaceutical interventions such as testing, contact tracing and mask-wearing. It is unfair to penalize nations that have used these measures by denying them vaccines. How will citizens respond to public-health advice in the next pandemic if they think it will deprive them of vaccine access?

It is in everybody’s interests to act collectively to boost vaccinations. It is self-defeating to act otherwise.

#### EU can ramp up production

Sam **Fleming 21**, Brussels Bureau Chief, “EU to back expansion of vaccine production capacity in Africa,” Financial Times, 5-17-2021, https://www.ft.com/content/d2a47c7e-0b00-4e31-92ab-cd3ff0b9070b

The EU plans to throw its weight behind a push to expand vaccine manufacturing in Africa after the coronavirus pandemic has underscored a need to broaden the production of life saving jabs. Ursula von der Leyen, European Commission president, is expected to back proposals to establish strategic manufacturing hubs in African countries at a global health summit in Rome on Friday, officials said. The EU move comes as the coronavirus crisis adds urgency to longstanding efforts to cut African countries’ dependence on imports of drugs to combat deadly diseases that ravage the continent. The bloc is also keen to promote initiatives to increase international vaccine production, which it argues is a better way to improve poor nations’ access to Covid-19 vaccines than the patent waivers proposed by the US this month. The EU’s contribution could include both direct EU aid and funding from national development agencies and the European Investment Bank, European officials said. Alongside the funding, which could extend into the hundreds of millions of euros, Brussels wants to help build up regulatory capacity, including the establishment of the African Medicines Agency — a continent wide drug regulator that was conceived in 2014 but has yet to get off the ground. Commission officials have also held preliminary talks about the plans with pharmaceutical industry representatives, people familiar with the matter said. The European efforts are designed to mesh with an African Union goal set in April for up to 60 per cent of Africa’s routine vaccine needs to be supplied from within the continent by 2040, up from just 1 per cent now. Given the long timeframes involved in creating manufacturing capacity, the changes would be aimed at dealing with possible future pandemics and perennial threats such as yellow fever.

#### Eliminating IPR for vaccines gives China a massive competitive edge on innovation broadly – tanks pharma, undermines pandemic response, and tech leadership – BUT domestic production and distribution solves

Okutsu & Sharma 21 [Akane, staff writer for Nikkei International, and Kiran, LPC, The College of Law, Guildford, 1997 BA (Hons), Law, Gonville & Caius College, Cambridge University, 1996. “Vaccine Patent Waiver: COVID Stopper or Innovation Killer?” https://asia.nikkei.com/Spotlight/Coronavirus/COVID-vaccines/Vaccine-patent-waiver-COVID-stopper-or-innovation-killer]

Western pharmaceutical companies are telling U.S. officials that they fear exposing their technologies to China, the Financial Times reported. The still-under-wraps expertise could be used not only for COVID-19 shots but other vaccines and therapeutics, stripping the companies of their competitive edge.

Pfizer and Moderna have produced what are called messenger RNA vaccines, a new technology that does not contain live virus and instead instructs cells to produce a protein found in the coronavirus, creating immunity. China's vaccine producers, meanwhile, have relied on conventional methods using weakened virus.

The Pharmaceutical Research and Manufacturers of America released a statement that the U.S. stance on the waiver means "handing over American innovations to countries looking to undermine our leadership in biomedical discovery."

But some say the waiver would not be an automatic win for China.

One reason is that its pharmaceutical companies would not be immune if prices fall. "There would be competitive pressure and a negative impact on pharmaceutical companies in and outside of the U.S." including China, said Banri Ito, professor at Japan's Aoyama Gakuin University.

The stock market seems to agree. Chinese vaccine makers including CanSino Biologics and Shanghai Fosun Pharmaceutical Group fell after the U.S. announcement, just like the shares of Pfizer and Moderna.

China's state media has been lukewarm toward the U.S. move, calling it a "political tactic."

How would it affect the pharmaceutical industry over the long term?

One major concern is a loss of incentives for costly research and development.

Pharmaceutical research has a low success rate and requires enormous sums of money. Without the profits generated from intellectual property rights, "there would be no new drugs," as companies would have no hope of recouping their investments, a JPMA spokesperson said.

Ito said this raises "concerns about how to respond to future pandemics." Speedy vaccine development, he said, is driven in part by the chance to corner the market.

If the patents are to be waived, Ito suggested other steps to spur innovation will be needed, such as establishing a fund to buy such knowledge. But setting prices and deciding how to deal with the technical secrets would be no easy task.

Ito said a quicker solution might be for Group of Seven countries to "consider policies to expand production capacity and strengthen the [World Health Organization's] COVAX initiative to purchase and distribute vaccines to developing countries."

#### Biopharma innovation is key to overall competitiveness – US still has a razor thin lead but IP is uniquely key

Ezell 20 [Stephen Ezell, Director of Global Innovation Policy at the Information Technology and Innovation Foundation (ITIF). "Ensuring U.S. Biopharmaceutical Competitiveness." 7/16/20. https://itif.org/publications/2020/07/16/ensuring-us-biopharmaceutical-competitiveness]

Nations are competing for increased market share in a wide array of advanced-innovation industries, understanding that these industries are the key to competitiveness, national security, and good jobs. China’s “Made in China 2025” strategy is perhaps the most visible of these efforts, but by no means the only one.

Many nations, including China, have targeted the biopharmaceuticals industry—an industry which the United States has long led—especially in drug innovation. One result has been that over the last decade U.S. biopharmaceutical manufacturing value-added output has fallen by almost one-third, as the U.S. trade deficit in drugs and inputs has increased. Fortunately, America still leads in innovation and drug development, in large part due to effective life-science policies, including significant federal investment in life-sciences basic research, robust intellectual property (IP) protections, effective technology transfer policies, investment incentives, and, importantly, drug pricing policies that enable companies to invest in high-risk drug development.

But if the story of the past decline, and even loss, of other critical U.S. industries provides any guide, loss of U.S. production will ultimately lead to the loss of innovation capabilities as well. It is not enough for the United States to lead in drug development, it must also at least hold its own in drug production. This is especially true given the coming challenge from China, which intends to dominate the global drug industry, at all phases, from innovation to production to marketing.

Now is not the time for free-market complacency, hoping that America’s entrepreneurial spirit and rule of law will somehow suffice (the United States didn’t gain its biopharma lead from a laissez faire approach, and it certainly won’t keep its lead with it alone). Nor is it the time for drug populism, a political movement that both sides of the aisle, but especially progressives, have unfortunately embraced. Drug populism and its accompanying policies of weaker IP protections and draconian drug price controls would likely result in cheaper drugs. But there should be no confusion that it will lead to a hollowing out of U.S. capabilities, not just in production but also in innovation (and, not to mention, fewer new lifesaving drugs). If the United States is serious about competitiveness overall, and competitiveness in the biopharma sector specifically, an industry that the United States still has strong capabilities in—unlike the telecom equipment or flat-panel display industries, to name just two—then it’s time for Washington to articulate and embrace a robust national biopharmaceutical competitiveness strategy.

#### Chinese tech leadership causes nuke war

Kroenig & Gopalaswamy 18, \*Associate Professor of Government and Foreign Service at Georgetown University and Deputy Director for Strategy in the Scowcroft Center for Strategy and Security at the Atlantic Council. \*\*Director of the South Asia Center at the Atlantic Council. He holds a PhD in mechanical engineering with a specialization in numerical acoustics from Trinity College, Dublin. (Matthew & Bharath, 11-12-2018, "Will disruptive technology cause nuclear war?", *Bulletin of the Atomic Scientists*, https://thebulletin.org/2018/11/will-disruptive-technology-cause-nuclear-war/)

Rather, we should think more broadly about how new technology might affect global politics, and, for this, it is helpful to turn to scholarly international relations theory. The dominant theory of the causes of war in the academy is the “bargaining model of war.” This theory identifies rapid shifts in the balance of power as a primary cause of conflict.

International politics often presents states with conflicts that they can settle through peaceful bargaining, but when bargaining breaks down, war results. Shifts in the balance of power are problematic because they undermine effective bargaining. After all, why agree to a deal today if your bargaining position will be stronger tomorrow? And, a clear understanding of the military balance of power can contribute to peace. (Why start a war you are likely to lose?) But shifts in the balance of power muddy understandings of which states have the advantage.

You may see where this is going. New technologies threaten to create potentially destabilizing shifts in the balance of power.

For decades, stability in Europe and Asia has been supported by US military power. In recent years, however, the balance of power in Asia has begun to shift, as China has increased its military capabilities. Already, Beijing has become more assertive in the region, claiming contested territory in the South China Sea. And the results of Russia’s military modernization have been on full display in its ongoing intervention in Ukraine.

Moreover, China may have the lead over the United States in emerging technologies that could be decisive for the future of military acquisitions and warfare, including 3D printing, hypersonic missiles, quantum computing, 5G wireless connectivity, and artificial intelligence (AI). And Russian President Vladimir Putin is building new unmanned vehicles while ominously declaring, “Whoever leads in AI will rule the world.”

If China or Russia are able to incorporate new technologies into their militaries before the United States, then this could lead to the kind of rapid shift in the balance of power that often causes war.

If Beijing believes emerging technologies provide it with a newfound, local military advantage over the United States, for example, it may be more willing than previously to initiate conflict over Taiwan. And if Putin thinks new tech has strengthened his hand, he may be more tempted to launch a Ukraine-style invasion of a NATO member.

Either scenario could bring these nuclear powers into direct conflict with the United States, and once nuclear armed states are at war, there is an inherent risk of nuclear conflict through limited nuclear war strategies, nuclear brinkmanship, or simple accident or inadvertent escalation.

This framing of the problem leads to a different set of policy implications. The concern is not simply technologies that threaten to undermine nuclear second-strike capabilities directly, but, rather, any technologies that can result in a meaningful shift in the broader balance of power. And the solution is not to preserve second-strike capabilities, but to preserve prevailing power balances more broadly.

#### CP solves hoarding and lobbying—

#### (1) Their ev all assumes the squo—see their references to lobbying and asymmetrical negotiating power.

#### (2) CP uses fiat to compel states to make and donate vaccines—none of the “but we don’t want to donate!” stuff that the 1AC cites exists in the world of the CP—quashes drug company resistance and forcibly stops inequitable distribution.

#### (3) CP causes production in the global South—solves global production capacity as described in 1AC Public Citizen 3/29

### FW

#### Even the most conservative estimates prove reducing existential risk outweighs all other impacts, regardless of probability – actively prioritize our calculus since you are cognitively biased against it

Whittlestone 17 – (Jess Whittlestone, PhD in Behavioural Science and has worked as a policy consultant for government, specialising in security and foreign policy. She also has experience as a freelance journalist for a number of online magazines, including Quartz, Vox, and Aeon. Before her PhD, she studied Maths and Philosophy at Oxford, and played a key role in developing 80,000 Hours' coaching process and research. Currently, Jess is a Postdoctoral Research Associate at the Leverhulme Centre for the Future of Intelligence at Cambridge, “The Long-Term Future”, Effective Altruism, 11-16-17, Available Online at <https://www.effectivealtruism.org/articles/cause-profile-long-run-future/>, accessed 12-4-18, HKR-AM)

The number of people alive today pales in comparison to the number who could exist in the future. It may therefore be extremely important to ensure that human civilization flourishes far into the future, enjoying fulfilling lives free of suffering.

There are a number of ways we might work to ensure a positive future for humanity. We could work to better understand and prevent extinction risks - catastrophic events that have the potential to destroy all life on this planet.[1] We may want to focus on the broader category of existential risks- events that could dramatically and irreversibly curtail humanity’s potential.[2] Or we might focus on increasing the chance that the lives of our descendants are positive in other ways: for example, improving democracy or the ability of institutions to make good decisions.

Attempts to shape the long-term future seem highly neglected relative to the problems we face today. There are fewer incentives to address longer-term problems, and they can also be harder for us to take seriously.

It is, of course, hard to be certain about the impact of our actions on the very long-term future. However, it does seem that there are things we can do - and given the vast scale we are talking about, these actions could therefore have an enormous impact in expectation.

This profile sets out why you might want to focus your altruistic efforts on the long-term future - and why you might not. You may be particularly inclined to focus on this if you think we face serious existential threats in the next century, and if you’re comfortable accepting a reasonable amount of uncertainty about the impact you are having, especially in the short-term.

The case for the long-term future as a target of altruism

The case for focusing on the long-term future can be summarised as follows:

The long-term future has enormous potential for good or evil: our descendants could live for billions or trillions of years, and have very high-quality lives;

It seems likely there are things we can do today that will affect the long-term future in non-negligible ways;

Possible ways of shaping the long-term future are currently highly neglected by individuals and society;

Given points 1 to 3 above, actions aimed at shaping the long-term future seem to have extremely high expected value, higher than any actions aiming for more near-term benefits.

Below we discuss each part of this argument in more detail.

The long-term future has enormous potential

Civilisation could continue for a billion years, until the Earth becomes uninhabitable.[3] It’s hard to say how likely this is, but it certainly seems plausible - and putting less than, say, a 1% chance on this possibility seems overconfident.[4] You may disagree that 1% is a reasonable lower bound here, but changing the figure by an order of magnitude or two would still yield an extremely impressive result. And even if civilisation only survives for another million years, that still amounts to another ~50,000 generations of people, i.e. trillions of future lives.[5]

If our descendants survive for long enough, then they are likely to advance in ways we cannot currently imagine - even someone living a few hundred years ago could not possibly have imagined the technological advances we’ve made today. It is possible they might even develop technology enabling them to reach and colonise planets outside our solar system, and survive well beyond a billion years.[6]

Let’s say that if we survive until the end of the Earth’s lifespan, there is a 1% chance of space colonisation. This would make the overall probability of survival beyond Earth 1 in 10,000 (1% chance of surviving to a billion years, multiplied by a 1% chance of surviving further given that). This sounds incredibly low, but suppose that space colonisation could allow our descendants to survive up to 100 trillion years[7]. This suggests we could have up to 1/10,000 x 100 trillion years = 10 billion expected years of civilisation ahead of us.

If we expect life in the future to be, on average, about as good as the present, then this would make the whole of the future about 100 million times more important than everything that has happened in the last 100 years. In fact, it seems like there could be more people in the future with better lives than those living today: economic, social, and technological progress could enable us to cure diseases, lift people out of poverty, and better solve other problems. It also seems possible that people in the future will be more altruistic than people alive today[8] - which also makes it more likely that they will be motivated to create a happy and valuable world.

However, it’s precisely because of this enormous potential that it’s so important to ensure that things go as well as possible. The loss of potential would be enormous if we end up on a negative trajectory. It could result in a great deal of suffering or the end of life.[9] And just as the potential to solve many of the world’s problems is growing, threats seem to be growing too. In particular, advanced technologies and increasing interconnectedness pose great risks.[10]

There are things we can do today that could affect the long-term future

There are a number of things we could work on today that seem likely to influence the long-term future:

Reducing extinction risks: We could reduce the risk of catastrophic climate change by putting in place laws and regulations to cut carbon emissions. We could reduce the risks from new technologies by investing in research to ensure their safety. Alternatively, we could work to improve global cooperation so that we are better able to deal with unforeseen risks that might arise.

Changing the values of a civilisation: Values tend to be stable in societies,[11] so attempts to shift values, whilst difficult, could have long-lasting effects. Some forms of value change, like increasing altruism, seem robustly good, and may be a way of realizing the very best possible futures. However, spreading poorly considered values could be harmful.

Reducing suffering risks: Historically, technological advances have enabled great welfare improvements (e.g. through modern agriculture and medicine), but also some of the greatest sources of present-day suffering (e.g. factory farming). To prevent the worst risks from new technologies, we could improve global cooperation and work on specific problems like preventing worst-case outcomes from artificial intelligence.

“Speeding up” development: Boosting technological innovation or scientific progress could have a lasting “speed up” effect on the entire future, making all future benefits happen slightly earlier than they otherwise would have. Curing a disease just a few years earlier could save millions of lives, for example. (That said, it’s not clear whether speeding up development is good or bad for existential risk - developing new technologies faster might help us to mitigate certain threats, but pose new risks of their own.)

Ripple effects of our ordinary actions: Improvements in health not only benefit individuals directly but allow them to be more economically successful, meaning that society and other individuals have to invest less in supporting them. In aggregate, this could easily have substantial knock-on effects on the productivity of society, which could affect the future.

Other ways we might create positive trajectory changes: These include improving education, science, and political systems.

Paul Christiano also points out that even if opportunities to shape the long-term future with any degree of certainty do not exist today, they may well exist in the future. Investing in our own current capacity could have an indirect but large impact by improving our ability to take such opportunities when they do arise. Similarly, we can do research today to learn more about how we might be able to impact the long-term future.

The long-term future is neglected, especially relative to its importance

Attempts to shape the long-term future are neglected by individuals, organisations and governments.

One reason is that there is little incentive to focus on far-off, uncertain issues compared to more certain, immediate ones. As 80,000 Hours put it, “Future generations matter, but they can’t vote, they can’t buy things, they can’t stand up for their interests.”

Problems faced by future generations are also more uncertain and more abstract, making it harder for us to care about them. There is a well-established phenomenon called temporal discounting, which means that we tend to give less weight to outcomes that are far in the future. This may explain our tendency to neglect long-term risks and problems. For example, it’s a large part of why we seem to have such difficulty tackling climate change.

Generally, there are diminishing returns to additional work in an area. This means that the neglectedness of the long-term future makes it more likely to be high impact.

Efforts to shape the long-term future could be extremely high in expected value

Even if the chance of our actions influencing the long-term trajectory of humanity is relatively low, there are extremely large potential benefits, which mean that these actions could still have a very high expected value. For example, decreasing the probability of human extinction by just one in a million could result in an additional 1,000 to 10,000 expected years of civilisation (using earlier assumptions).[12]

Compare this to actions we could take to improve the lives of people alive today, without looking at longer-run effects. A dramatic victory such as curing the most common and deadly diseases, or ending all war, might only make the current time period (~100 years) about twice as good as otherwise.[13] Though this seems like an enormous success, given the calculations above, decreasing the probability of human extinction would be 10 or 100 times better in expectation.

We might want to adjust this naive estimate downwards slightly, however, given uncertainty about some of the assumptions that go into it - we could be wrong about the probability of humanity surviving far into the future, or about the value of the future (if we think that future flourishing might have diminishing value, for example.) However, even if we think these estimates should be adjusted downwards substantially, we might very conservatively imagine that reducing the likelihood of existential risk by one in a million only equates to 100 expected years of civilization. This still suggests that the value of working to reduce existential risk is comparable to the value of the biggest victories we could imagine in the current time period - and so well worth taking seriously.

#### Threat of extinction destroys the value structures of life – the idea of value assumes there will be generations after us – their contention doesn’t assume our impacts

Scheffler 13 — (Samuel Scheffler, professor of philosophy and law at New York University, is the author of the forthcoming book “Death and the Afterlife, “The Importance of the Afterlife. Seriously.“, NYT Opinionator, 9-21-2013, Available Online at https://opinionator.blogs.nytimes.com/2013/09/21/the-importance-of-the-afterlife-seriously/#more-149307, accessed 12-25-2018, HKR-AM)

My belief in life after death is more mundane. What I believe is that other people will continue to live after I myself have died. You probably make the same assumption in your own case. Although we know that humanity won’t exist forever, most of us take it for granted that the human race will survive, at least for a while, after we ourselves are gone.

Because we take this belief for granted, we don’t think much about its significance. Yet I think that this belief plays an extremely important role in our lives, quietly but critically shaping our values, commitments and sense of what is worth doing. Astonishing though it may seem, there are ways in which the continuing existence of other people after our deaths — even that of complete strangers — matters more to us than does our own survival and that of our loved ones.

Consider a hypothetical scenario. Suppose you knew that although you yourself would live a long life and die peacefully in your sleep, the earth and all its inhabitants would be destroyed 30 days after your death in a collision with a giant asteroid. How would this knowledge affect you?

If you are like me, and like most people with whom I have discussed the question, you would find this doomsday knowledge profoundly disturbing. And it might greatly affect your decisions about how to live. If you were a cancer researcher, you might be less motivated to continue your work. (It would be unlikely, after all, that a cure would be found in your lifetime, and even it were, how much good would it do in the time remaining?) Likewise if you were an engineer working to improve the seismic safety of bridges, or an activist trying to reform our political or social institutions or a carpenter who cared about building things to last. What difference would these endeavors make, if the destruction of the human race was imminent?

If you were a novelist or playwright or composer, you might see little point in continuing to write or compose, since these creative activities are often undertaken with an imagined future audience or legacy in mind. And faced with the knowledge that humanity would cease to exist soon after your death, would you still be motivated to have children? Maybe not.

Notice that people do not typically react with such a loss of purpose to the prospect of their own deaths. Of course, many people are terrified of dying. But even people who fear death (and even those who do not believe in a personal afterlife) remain confident of the value of their activities despite knowing that they will die someday. Thus there is a way in which the survival of other people after our deaths matters more to us than our own survival.

The explanation for this may seem simple: if the earth will be destroyed 30 days after we die, then everyone we care about who is alive at that time will meet a sudden, violent end. Spouses and partners, children and grandchildren, friends and lovers: all would be doomed. Perhaps it is our concern for our loved ones that explains our horror at the prospect of a post-mortem catastrophe.

But I don’t think this is the full story. Consider another hypothetical scenario, drawn from P. D. James’s novel “The Children of Men.” In Ms. James’s novel, humanity has become infertile, with no recorded birth having occurred in over 25 years. Imagine that you found yourself living in such circumstances. Nobody now alive is younger than 25, and the disappearance of the human race is imminent as an aging population inexorably fades away. How would you react?

As in the case of the asteroidal collision, many activities would begin to seem pointless under these conditions: cancer research, seismic safety efforts, social and political activism and so on. Beyond that, as Ms. James’s novel vividly suggests, the onset of irreversible global infertility would be likely to produce widespread depression, anxiety and despair.

Some people would seek consolation in religious faith, and some would find it. Others would take what pleasure they could in activities that seemed intrinsically rewarding: listening to music, exploring the natural world, spending time with family and friends and enjoying the pleasures of food and drink. But even these activities might seem less fulfilling, and be tinged with sadness and pain, when set against the background of a dying humanity.

NOTICE that in this scenario, unlike that of the asteroidal collision, nobody would die prematurely. So what is dismaying about the prospect of living in an infertile world cannot be that we are horrified by the demise of our loved ones. (They would die eventually, of course, but that is no different from our actual situation.) What is dismaying is simply that no new people would come into existence.

This should give us pause. The knowledge that we and everyone we know and love will someday die does not cause most of us to lose confidence in the value of our daily activities. But the knowledge that no new people would come into existence would make many of those things seem pointless.

I think this shows that some widespread assumptions about human egoism are oversimplified at best. However self-interested or narcissistic we may be, our capacity to find purpose and value in our lives depends on what we expect to happen to others after our deaths. Even the egotistic tycoon who is devoted to his own glory might discover that his ambitions seemed pointless if humanity’s disappearance was imminent. Although some people can afford not to depend on the kindness of strangers, virtually everyone depends on the future existence of strangers.

Similarly, I think that familiar assumptions about human individualism are oversimplified. Even though we as individuals have diverse values and goals, and even though it is up to each of us to judge what we consider to be a good or worthy life, most of us pursue our goals and seek to realize our values within a framework of belief that assumes an ongoing humanity. Remove that framework of belief, and our confidence in our values and purposes begins to erode.

There is also a lesson here for those who think that unless there is a personal afterlife, their lives lack any meaning or purpose. What is necessary to underwrite the perceived significance of what we do, it seems, is not a belief in the afterlife but rather a belief that humanity will survive, at least for a good long time.

But will humanity survive for a good long time? Although we normally assume that others will live on after we ourselves have died, we also know that there are serious threats to humanity’s survival. Not all of these threats are human-made, but some of the most pressing certainly are, like those posed by climate change and nuclear proliferation. People who worry about these problems often urge us to remember our obligations to future generations, whose fate depends so heavily on what we do today. We are obligated, they stress, not to make the earth uninhabitable or to degrade the environment in which our descendants will live.

I agree. But there is also another side to the story. Yes, our descendants depend on us to make possible their existence and well-being. But we also depend on them and their existence if we are to lead flourishing lives ourselves. And so our reasons to overcome the threats to humanity’s survival do not derive solely from our obligations to our descendants. We have another reason to try to ensure a flourishing future for those who come after us: it is simply that, to an extent that we rarely recognize or acknowledge, they already matter so much to us.

#### Santos and Butler are incoherent—(a) presuppose that we destroy something to save a greater whole which we don’t, (b) they don’t provide reasons to prioritize structural violence over extinction—no specific comparative analysis to the logic justifying extinction impacts outweighing.

### Case

#### On the underview—

A. Only says WTO bad—doesn’t say anything about any DAs.

B. Reject blanket assertions of low probability—if the risk is low then they should be able to prove it, otherwise the risk isn’t low

C/D. They can contest issues in our causal chain by presenting their evidence to make us reckon with those confounding factors—and if people in the squo are likely to recognize the dangerous path they’re on and change course then the squo will the solve aff which the moots the 1AC.

E. We have qualified evidence substantiating our claims of extinction impacts—means we’re well above the baseline “negligible probability.”

#### Vaccines are too hard to replicate – IP waiver does nothing and knowledge sharing is key

Ana Santos Rutschman 21, Assistant Professor of Law at Saint Louis University School of Law., “The COVID-19 Vaccine Patent Waiver: The Wrong Tool for the Right Goal,” Bill of Health, 5-5-2021, https://blog.petrieflom.law.harvard.edu/2021/05/05/covid-vaccine-patent-waiver/

Unlike vaccines, the drugs at stake then were much less difficult to replicate, and third parties availing themselves of a compulsory license faced no significant knowledge deficit. Moreover, there was sufficient production capacity and the necessary raw materials for these drugs to be produced and distributed. Compulsory licensing was thus the right tool for this particular public health problem. By contrast, a waiver of COVID-19 vaccine patents is the wrong legal and policy tool because it does not address the lack of knowledge sharing nor the shortage of raw materials and manufacturing capacity. Furthermore, the use of a waiver is politically fraught — as was the use of compulsory licenses in the context of HIV/AIDS. We submit that battles of the political economy are best fought when prevailing on the use of a legal tool that actually solves the underlying practical problems. For the reasons stated above, that is not the case with waivers. It can be appealing to see a patent waiver as an attractive short-term solution. Yet, even the short-term needs are too intense and the challenges too complex for waivers to fully address the infrastructural and knowledge gaps, as well as the additional problem of inequitable distribution of existing vaccines.

#### Aff doesn’t increase knowledge sharing for the same reasons as the squo not allowing IP waivers—without compelling, production will still be stuck in the global North.

#### Tons of alt causes to health inequality – access, structural wealth inequality, private monopolies

#### Squo solves – plan increases price of scarce materials and results in costly, ineffective facilities

Mcmurry-Heath 8/18 (Michelle Mcmurry-Heath, [physician-scientist and president and CEO of the Biotechnology Innovation Organization.], 8-18-2021, “Waiving intellectual property rights would harm global vaccination“, STAT, accessed: 8-19-2021, https://www.statnews.com/2021/08/18/waiving-intellectual-property-rights-compromise-global-vaccination-efforts/) ajs

Covid-19 vaccines are already remarkably cheap, and companies are offering them at low or no cost to low-income countries. Poor access to clinics and transportation are barriers in some countries, but the expense of the shot itself is not. In fact, if the World Trade Organization grants the IP waiver, it could make these vaccines more expensive.

Here’s why. Before Covid-19 emerged, the world produced at most [5.5 billion doses](https://www.barrons.com/articles/a-plan-to-break-the-vaccine-manufacturing-bottleneck-51621952245) of various vaccines every year. Now the world needs an additional [11 billion doses](https://www.who.int/director-general/speeches/detail/director-general-s-opening-remarks-at-the-g7-summit---12-june-2021) — including billions of doses of mRNA vaccines that no one had ever mass-manufactured before — to fully vaccinate every eligible person on the planet against the new disease.

Even as Covid-19 vaccines were still being developed, pharmaceutical companies began retrofitting and upgrading existing facilities to produce Covid-19 vaccines, at a cost of $40 to $100 million each. Vaccine developers also licensed their technologies to well-established manufacturers, like the Serum Institute of India, to further increase production. As a result, almost every facility in the world that can quickly and safely make Covid-19 vaccines is already doing so, or will be in the next few months.

#### There is no spare capacity that would be unlocked by IP waivers

Hans **Sauer 4/19,** Deputy General Counsel and Vice President for Intellectual Property for the Biotechnology Innovation Organization, “Waiving IP Rights During Times of COVID: A ‘False Good Idea’,” IPWatchdog, 4-19-2021, https://www.ipwatchdog.com/2021/04/19/waiving-ip-rights-during-times-of-covid-a-false-good-idea/id=132399/

The Proposed Waiver is Unlikely to Help the Fight Against the Pandemic To begin with, one would think, the burden of establishing the need for such an extreme and disruptive measure should be on its proponents. Yet, in the face of unprecedented progress towards COVID vaccines, tests and treatments in record time, the waiver proponents can point to no credible instances in which IP has in fact hindered the development or production of COVID-19 countermeasures. Readers should judge for themselves by perusing the joint South African/Indian TRIPS Council submission purporting to demonstrate such IP barriers. Even cursory inspection shows that this proof consists of a number of pending patent applications, a handful of patents that haven’t been asserted, a few statements by politicians, and historical narratives having nothing to do with COVID-19. There have been a few instances of patent litigation, but none to block or delay COVID products. Interestingly, royalty-free licenses by drug originators to dozens of manufacturers in developing countries are counted as IP barriers to access. Perhaps recognizing the lack of affirmative proof supporting the need for a COVID IP waiver, proponents are increasingly trying to shift the burden to those who oppose the waiver, maybe best exemplified by World Health Organization Director General Tedros Ghebreyesus’ stance: “if not now, then when would a WTO waiver ever be justified?” Yet this is a poor substitute for an actual rationale, especially when the TRIPS Agreement and its addenda are already replete with IP flexibilities that have been justified for both national and multilateral use on the ground that they will be necessary in a public health emergency. The same proponents who have for decades with significant traction argued for an ever-growing expansion of these flexibilities now say that it is not worth even trying to use them; only the effective abrogation of all IP rights in relation to COVID-19 would be a quick enough measure to deal with the present crisis while it lasts. However, the proposed blanket suspension of IP rights is no quick fix for the pandemic, as it is unlikely to accelerate the delivery of COVID-19 vaccines. Waiver proponents have been unable to document the existence of idle global COVID vaccine manufacturing capacity **that could be unleashed by suspending IP rights.** Existing capacity to produce traditional vaccines with conventional manufacturing technology simply cannot quickly or easily be converted to produce the advanced COVID-19 vaccines currently deployed. Thus, developing country manufacturers that currently make e.g. diphtheria, yellow fever, or tetanus vaccines, cannot simply be re-tooled to make the high-end mRNA or vectored COVID vaccines we are eagerly waiting for. Very different facilities will be needed, and getting these built, certified, and operational will take time, money, and precious expertise. Waiver proponents also seem to forget that someone must keep making the whooping cough, polio, MMR, and other childhood vaccines against diseases that kill more children in the developing world than COVID ever will. Current global need for non-COVID vaccines is estimated at 3.5-5.5 billion doses per year, and those who talk about using existing capacity must realize that we cannot convert current manufacturing away from these critically-important products. On top of that, an estimated 14 billion doses of COVID vaccines will be needed globally. As GAVI – The Vaccine Alliance explains, it was always clear that demand for COVID vaccines would be high, immediate, and impossible to meet in the short term. This is no fault of the IP system. Vaccine manufacturing processes are complex, require specific know-how and equipment, and just cannot happen overnight. Some COVID-19 vaccines involve new technologies, such as mRNA and lipid nanoparticle encapsulation, for which no large-scale manufacturing facilities or copious raw materials existed at the outset of the pandemic. The worldwide capacity to build or convert new plants is likewise limited, specialized manufacturing equipment is difficult or impossible to source, and none of this is or was ever going to be achievable within a few months as the proponents of the TRIPS waiver assert. Not even counting the time it takes to construct and equip a new plant, just the regulatory certification of a completed new facility takes several months before it can begin commercial production, and the manufacture and quality control of a single batch of COVID-19 vaccine takes 3-4 months before it can be released. Anywhere between 100 and 1,000 quality controls are done at each step of the manufacturing process. Those who argue that an IP waiver would enable the free flow of COVID vaccines within months are raising impossible expectations.

#### No ! to disease – not widespread nor existential

Dr. Toby Ord 20, Senior Research Fellow in Philosophy at Oxford University, DPhil in Philosophy from the University of Oxford, The Precipice: Existential Risk and the Future of Humanity, Hachette Books, Kindle Edition, p. 124-126

Are we safe now from events like this? Or are we more vulnerable? Could a pandemic threaten humanity’s future?10

The Black Death was not the only biological disaster to scar human history. It was not even the only great bubonic plague. In 541 CE the Plague of Justinian struck the Byzantine Empire. Over three years it took the lives of roughly 3 percent of the world’s people.11

When Europeans reached the Americas in 1492, the two populations exposed each other to completely novel diseases. Over thousands of years each population had built up resistance to their own set of diseases, but were extremely susceptible to the others. The American peoples got by far the worse end of exchange, through diseases such as measles, influenza and especially smallpox.

During the next hundred years a combination of invasion and disease took an immense toll—one whose scale may never be known, due to great uncertainty about the size of the pre-existing population. We can’t rule out the loss of more than 90 percent of the population of the Americas during that century, though the number could also be much lower.12 And it is very difficult to tease out how much of this should be attributed to war and occupation, rather than disease. As a rough upper bound, the Columbian exchange may have killed as many as 10 percent of the world’s people.13

Centuries later, the world had become so interconnected that a truly global pandemic was possible. Near the end of the First World War, a devastating strain of influenza (known as the 1918 flu or Spanish Flu) spread to six continents, and even remote Pacific islands. At least a third of the world’s population were infected and 3 to 6 percent were killed.14 This death toll outstripped that of the First World War, and possibly both World Wars combined.

Yet even events like these fall short of being a threat to humanity’s longterm potential.15

[FOONOTE]

In addition to this historical evidence, there are some deeper biological observations and theories suggesting that pathogens are unlikely to lead to the extinction of their hosts. These include the empirical anti-correlation between infectiousness and lethality, the extreme rarity of diseases that kill more than 75% of those infected, the observed tendency of pandemics to become less virulent as they progress and the theory of optimal virulence. However, there is no watertight case against pathogens leading to the extinction of their hosts.

[END FOOTNOTE]

In the great bubonic plagues we saw civilization in the affected areas falter, but recover. The regional 25 to 50 percent death rate was not enough to precipitate a continent-wide collapse of civilization. It changed the relative fortunes of empires, and may have altered the course of history substantially, but if anything, it gives us reason to believe that human civilization is likely to make it through future events with similar death rates, even if they were global in scale.

The 1918 flu pandemic was remarkable in having very little apparent effect on the world’s development despite its global reach. It looks like it was lost in the wake of the First World War, which despite a smaller death toll, seems to have had a much larger effect on the course of history.16

It is less clear what lesson to draw from the Columbian exchange due to our lack of good records and its mix of causes. Pandemics were clearly a part of what led to a regional collapse of civilization, but we don’t know whether this would have occurred had it not been for the accompanying violence and imperial rule. The strongest case against existential risk from natural pandemics is the fossil record argument from Chapter 3. Extinction risk from natural causes above 0.1 percent per century is incompatible with the evidence of how long humanity and similar species have lasted. But this argument only works where the risk to humanity now is similar or lower than the longterm levels. For most risks this is clearly true, but not for pandemics. We have done many things to exacerbate the risk: some that could make pandemics more likely to occur, and some that could increase their damage. Thus even “natural” pandemics should be seen as a partly anthropogenic risk.

#### Removing IP for COVID would decimate the industry, spill over to future vaccines, and massively reduce access – turns and outweighs the case

Hart 21 [Debbie, M.S. from the S. I. Newhouse School at Syracuse University where she graduated cum laude and a B.A. from Trenton State College, now The College of New Jersey, head of New Jersey’s Restart and Recovery Advisory Council focused on COVID-19 recovery state-wide. “Waiving IP rights for COVID-19 vaccines is dangerous for innovation, jobs and patients | Opinion” https://www.northjersey.com/story/opinion/2021/07/31/covid-19-vaccines-we-shouldnt-waive-ip-rights/5432438001/]

Three simple words capture the powerful impact that medical innovations have on our health, well-being, and quality of life in the time of a pandemic. The incredible efforts of the biopharmaceutical sector over the past year — and even years before the COVID-19 pandemic — brought vaccines to market for COVID-19 at a rapid pace. In order to bring an end to the pandemic, it is critical that we ensure broad access

to these vaccines across the globe, but we must do so in a way that protects the intellectual property that allowed us to produce the vaccines we have today – and need tomorrow.

Unfortunately, the U.S. recently announced that it would support a World Trade Organization proposal to waive intellectual property protections for COVID-19 vaccines, a decision that would create a negative ripple effect on the innovation sector in New Jersey and beyond and the very patients who need safe and effective vaccines and treatments the most. Waiving IP protections would threaten the future development of innovative treatments in the most critical moments and ignore more effective ways to ensure global vaccine access during a crisis that don’t put innovation and patients in jeopardy.

IP protections on medical products exist to give patients confidence that they will receive treatments that are backed by rigorous safety and efficacy standards and ensure companies can continue to develop innovative drugs for complex disease. Known commonly as the “TRIPS” waiver, WTO proposed the IP waiver under the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), an international legal agreement between all member nations of the WTO. The intent may be right – to expand access to lifechanging vaccines across the globe — but the consequences could be vast and dangerous.

Waiving IP protections for COVID-19 vaccines that showcase the very best of the biopharmaceutical sector — including the companies that call New Jersey home — not only doesn’t guarantee faster rollout for vaccines abroad but could undermine the standards for these drugs and the supply chain that has demonstrated efficacy throughout the pandemic.

The notion that waiving IP protections is critical to saving lives abroad diminishes the work that American companies have done to develop groundbreaking drugs and undermines their continued commitment to saving lives and changing the way we treat and manage complex diseases. There are alternative solutions, including the Biotechnology Innovation Organization’s proposed Global “SHARE” Program, which would ensure continued global vaccine access without threatening American jobs and innovation.

There is no question that the fight is not over against COVID-19. But disrupting the production of these difficult to manufacture vaccines and threatening future drug developments is not the way to solve the ongoing challenges of the pandemic. Instead, we should bolster the existing manufacturing framework, hardworking Americans, and valuable science here in New Jersey and across the country. In New Jersey alone, more than 70 companies continue to work to combat the effects of the coronavirus. This approach not only secures U.S. jobs and the homegrown innovation that are central pillars of the Biden Administration, but continues to achieve the global objective of turning the corner on the COVID-19 pandemic.

#### **That uniquely cedes ground to China, but the CP shields and solves access**

Rubin & Saidel 21 [Harvey, BS State University Of New York, Stony Brook , 1969. Ph.D. University Of Pennsylvania, 1974. M.D. Columbia University, and Nicholas, Foreign policy analyst with extensive experience in Middle East affairs. Frequent op-ed contributor and blogger for sites including The WSJ, The Brookings Institute, The Hill, Defense One, The Huffington Post, Fox News, The Jerusalem Post. “Innovation beyond patent waivers: Achieving global vaccination goals through public-private partnerships” https://www.brookings.edu/blog/up-front/2021/08/31/innovation-beyond-patent-waivers-achieving-global-vaccination-goals-through-public-private-partnerships/]

Pro-patent protection: The first school that patent protections on COVID-19 vaccines are necessary because pharmaceutical companies will otherwise be disincentivized to innovate and invest in vaccine research and development, and they will unfairly lose market share to competitors and adversarial nations such as China. This theory also that removing IP protections will not serve the intended objective of increasing vaccination rates as the developing world lacks the infrastructure and expertise to roll out effective domestic production. Advocates of patent protection argue that the WTO already allows countries to apply for “compulsory licensing,” which waives IP during emergencies such as the COVID-19 pandemic. Proponents of continued patent protection see voluntary commitments from industry, developed world governments, and large NGOs as a more effective means of addressing the problem.