# 1NC – Innovation DA

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### 1NC – Climate Innovation

#### The United States should publicly repudiate a COVID vaccine waiver.

#### Current IP protections protect investment in climate change reduction – COVID waiver spills over to reduce innovation

Brand 5/26 [Melissa Brand is Assistant General Counsel and Director of Intellectual Property at the Biotechnology Innovation Organization (BIO), a major trade association with over 1,000 members in the biotechnology industry. May 26, 2021, “TRIPS IP Waiver Could Establish Dangerous Precedent for Climate Change and Other Biotech Sectors,” ipwatchdog, www.ipwatchdog.com/2021/05/26/trips-ip-waiver-establish-dangerous-precedent-climate-change-biotech-sectors/id=133964//lhs-ap]

While the discussions around waiving intellectual property (IP) rights set forth in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) are currently (and somewhat amorphously) limited to COVID-19 related drug and medical products, it is probably shortsighted to ignore the implications for other technologies critical to sustaining our environment and advancing a more healthful world. In fact, if we want to ensure continued investment in these technologies, we should be very concerned about the message conveyed by the international political tide: if you overcome a challenging scientific problem and your solution has the potential to save lives, be prepared to be subjected to intense political pressure and to potentially hand over your technology without compensation and regardless of the consequences.

The biotech industry is making remarkable advances towards climate change solutions, and it is precisely for this reason that it can expect to be in the crosshairs of potential IP waiver discussions. President Biden is correct to refer to climate change as an existential crisis. Yet it does not take too much effort to connect the dots between President Biden’s focus on climate change and his Administration’s recent commitment to waive global IP rights for Covid vaccines (TRIPS IP Waiver). “This is a global health crisis, and the extraordinary circumstances of the COVID-19 pandemic call for extraordinary measures.” If an IP waiver is purportedly necessary to solve the COVID-19 global health crisis (and of course we dispute this notion), can we really feel confident that this or some future Administration will not apply the same logic to the climate crisis? And, without the confidence in the underlying IP for such solutions, what does this mean for U.S. innovation and economic growth? United States Trade Representative (USTR) Katherine Tai was subject to questioning along this very line during a recent Senate Finance Committee hearing. And while Ambassador Tai did not affirmatively state that an IP waiver would be in the future for climate change technology, she surely did not assuage the concerns of interested parties.

International Pressure May Be Influencing Domestic IP Policy

The United States has historically supported robust IP protection. This support is one reason the United States is the center of biotechnology innovation and leading the fight against COVID-19. However, a brief review of the domestic legislation arguably most relevant to this discussion shows just how far the international campaign against IP rights has eroded our normative position. The Clean Air Act, for example, contains a provision allowing for the mandatory licensing of patents covering certain devices for reducing air pollution. Importantly, however, the patent owner is accorded due process and the statute lays out a detailed process regulating the manner in which any such license can be issued, including findings of necessity and that no reasonable alternative method to accomplish the legislated goal exists. Also of critical importance is that the statute requires compensation to the patent holder. Similarly, the Atomic Energy Act contemplates mandatory licensing of patents covering inventions of primary importance in producing or utilizing atomic energy. This statute, too, requires due process, findings of importance to the statutory goals and compensation to the rights holder.

A TRIPS IP waiver would operate outside of these types of frameworks. There would be no due process, no particularized findings, no compensation and no recourse. Indeed, the fact that the World Trade Organization (WTO) already has a process under the TRIPS agreement to address public health crises, including the compulsory licensing provisions, with necessary guardrails and compensation, makes quite clear that the waiver would operate as a free for all.

Forced Tech Transfer Could Be on The Table

When being questioned about the scope of a potential TRIPS IP waiver, Ambassador Tai invoked the proverb “Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime.” While this answer suggests primarily that, in times of famine, the Administration would rather give away other people’s fishing rods than share its own plentiful supply of fish (here: actual COVID-19 vaccine stocks), it is apparent that in Ambassador Tai’s view waiving patent rights alone would not help lower- and middle-income countries produce their own vaccines. Rather, they would need to be taught how to make the vaccines and given the biotech industry’s manufacturing know-how, sensitive cell lines, and proprietary cell culture media in order to do so.

In other words, Ambassador Tai acknowledged that the scope of the current TRIPS IP waiver discussions includes the concept of forced tech transfer. In the context of climate change, the idea would be that companies who develop successful methods for producing new seed technologies and sustainable biomass, reducing greenhouse gases in manufacturing and transportation, capturing and sequestering carbon in soil and products, and more, would be required to turn over their proprietary know-how to global competitors.

While it is unclear how this concept would work in practice and under the constitutions of certain countries, the suggestion alone could be devastating to voluntary international collaborations. Even if one could assume that the United States could not implement forced tech transfer on its own soil, what about the governments of our international development partners? It is not hard to understand that a U.S.-based company developing climate change technologies would be unenthusiastic about partnering with a company abroad knowing that the foreign country’s government is on track – with the assent of the U.S. government – to change its laws and seize proprietary materials and know-how that had been voluntarily transferred to the local company.

Necessary Investment Could Diminish

Developing climate change solutions is not an easy endeavor and bad policy positions threaten the likelihood that they will materialize. These products have long lead times from research and development to market introduction, owing not only to a high rate of failure but also rigorous regulatory oversight. Significant investment is required to sustain and drive these challenging and long-enduring endeavors. For example, synthetic biology companies critical to this area of innovation raised over $1 billion in investment in the second quarter of 2019 alone. If investors cannot be confident that IP will be in place to protect important climate change technologies after their long road from bench to market, it is unlikely they will continue to invest at the current and required levels.

Next on the Chopping Block

It is quite reasonable to be worried about the broad implications of a TRIPS IP waiver precedent. International campaigns to weaken IP rights seem to be taking hold in U.S. domestic policy. The TRIPS IP waiver discussions will not conclude in the near term and will not yield more shots in people’s arms. This is not even truly disputed, as our own administration acknowledges that the goal here is technology transfer abroad. Given the signaling that our Administration believes waiving IP rights is an appropriate measure to end global crises, it is proper to worry that facets of the biotech sector addressing climate change may be next on the chopping block.

#### Extinction

Dr. Yew-Kwang Ng 19, Winsemius Professor of Economics at Nanyang Technological University, Fellow of the Academy of Social Sciences in Australia and Member of Advisory Board at the Global Priorities Institute at Oxford University, PhD in Economics from Sydney University, “Keynote: Global Extinction and Animal Welfare: Two Priorities for Effective Altruism”, Global Policy, Volume 10, Number 2, May 2019, pp. 258–266

Catastrophic climate change Though by no means certain, CCC causing global extinction is possible due to interrelated factors of non-linearity, cascading effects, positive feedbacks, multiplicative factors, critical thresholds and tipping points (e.g. Barnosky and Hadly, 2016; Belaia et al., 2017; Buldyrev et al., 2010; Grainger, 2017; Hansen and Sato, 2012; IPCC 2014; Kareiva and Carranza, 2018; Osmond and Klausmeier, 2017; Rothman, 2017; Schuur et al., 2015; Sims and Finnoff, 2016; Van Aalst, 2006).7 A possibly imminent tipping point could be in the form of ‘an abrupt ice sheet collapse [that] could cause a rapid sea level rise’ (Baum et al., 2011, p. 399). There are many avenues for positive feedback in global warming, including: • the replacement of an ice sea by a liquid ocean surface from melting reduces the reflection and increases the absorption of sunlight, leading to faster warming; • the drying of forests from warming increases forest fires and the release of more carbon; and • higher ocean temperatures may lead to the release of methane trapped under the ocean floor, producing runaway global warming. Though there are also avenues for negative feedback, the scientific consensus is for an overall net positive feedback (Roe and Baker, 2007). Thus, the Global Challenges Foundation (2017, p. 25) concludes, ‘The world is currently completely unprepared to envisage, and even less deal with, the consequences of CCC’. The threat of sea-level rising from global warming is well known, but there are also other likely and more imminent threats to the survivability of mankind and other living things. For example, Sherwood and Huber (2010) emphasize the adaptability limit to climate change due to heat stress from high environmental wet-bulb temperature. They show that ‘even modest global warming could ... expose large fractions of the [world] population to unprecedented heat stress’ p. 9552 and that with substantial global warming, ‘the area of land rendered uninhabitable by heat stress would dwarf that affected by rising sea level’ p. 9555, making extinction much more likely and the relatively moderate damages estimated by most integrated assessment models unreliably low. While imminent extinction is very unlikely and may not come for a long time even under business as usual, the main point is that we cannot rule it out. Annan and Hargreaves (2011, pp. 434–435) may be right that there is ‘an upper 95 per cent probability limit for S [temperature increase] ... to lie close to 4°C, and certainly well below 6°C’. However, probabilities of 5 per cent, 0.5 per cent, 0.05 per cent or even 0.005 per cent of excessive warming and the resulting extinction probabilities cannot be ruled out and are unacceptable. Even if there is only a 1 per cent probability that there is a time bomb in the airplane, you probably want to change your flight. Extinction of the whole world is more important to avoid by literally a trillion times.

### 1NC – Pharma Innovation

#### Disease research high now – Vaccine waiver is ineffective at accelerating vaccine distribution, but does stifle investment

Spiegel 8/5 [Andrew Spiegel is the executive director of the Global Colon Cancer Association, based in Bala Cynwyd, Pennsylvania. 5 August 2021, “How the COVID IP-waiver could sabotage crucial cancer research | Opinion,” delaware online, www.delawareonline.com/story/opinion/2021/08/05/covid-vaccine-patent-waiver-endangers-crucial-cancer-research/5487664001//lhs-ap]

President Joe Biden craves a cure for cancer. In a speech to Congress this spring, he vowed to "end cancer as we know it." And as Vice President, he helped start the Cancer Moonshot initiative.

Yet by giving his backing to a global waiver of intellectual property rights for COVID-19 vaccines, Biden may have endangered millions of Americans living with cancer.

The Biden administration has said that it would join a World Trade Organization move to suspend IP safeguards for the vaccines. Its intentions are no doubt sincere, founded in the belief that a waiver will help rid the world of COVID-19. Yet the setting aside of IP protections has consequences that the administration seems to have overlooked.

If adopted, the waiver won't galvanize the supply of vaccines bound for the developing world — certainly not in the immediate term. What it will do is threaten scientific innovation that could lead to cures for cancer and other diseases.

When the news that Biden would support the waiver broke, I received agitated call after agitated call from friends and colleagues in the cancer patient community. They wanted to know what the move would mean for them.

I had to be honest with them. I said I had a bad feeling.

I'll explain why. Technically, the waiver supported by the United States would only apply to IP on COVID-19 vaccines. So what has this got to do with cancer?

There are two consequences. First, intellectual property underpins scientists' incentives to make discoveries. Without proprietary "armor" to protect research, rivals could blithely — and lawfully — use scientists' know-how, data, or manufacturing processes.

Second, waiving IP on underlying vaccine technology has ramifications for drug innovation. Since the same technologies are used for potential treatments for other diseases, vaccine-makers would have to give up IP on those projects too.

Consider the Pfizer-BioNTech and Moderna vaccines. They use "mRNA" to promote an immune response to Covid-19, a technology that took decades to develop. The only people who really understand it are with American firms like Moderna and German companies like BioNTech, the firm that partnered with Pfizer for its mRNA vaccine. With the successful rollout of mRNA Covid-19 vaccines, researchers in the United States and Germany now hope they can use mRNA to fight other viruses. Moderna has active trials for mRNA vaccines for Zika, HIV, and the flu.

Cancer doctors and patients pray that mRNA is the key to a cure. Moderna, in fact, has two mRNA vaccine candidates for cancer. Researchers hope that mRNA could instruct the body to combat cancerous tumors like it fights a virus.

With the IP waiver, Moderna's mRNA technology could end up with rivals, leaving the company with greatly diminished incentives — and greatly diminished investment dollars — to continue with mRNA clinical trials, including ones for cancer. Advanced drug innovation could come to a halt. What investor would fund biotech startups if copycats can swoop in?

This scenario is made especially distressing by the fact that the upsides of the IP waiver are negligible. Manufacturers need specialized facilities and hundreds of ingredients to make traditional vaccines, let alone the new mRNA ones. Vaccine-makers have struck licensing deals to scale up production. Every facility on earth that can safely produce effective vaccines is already doing so. As a result, more than a quarter of the world's population has received at least one vaccine dose and more than 3.69 billion doses have been administered globally. Getting rid of IP won't make the scale-up go any faster. It could, however, unleash millions of shoddy copycats and even counterfeit vaccine doses.

President Biden has shown how he can help vaccinate the world without holding mRNA research hostage. For instance, he has already agreed to donate 580 million of the United States' surplus vaccine doses to COVAX — a WHO, CEPI, and Gavi co-led initiative to distribute COVID-19 vaccines to developing countries. And, with other funding the Biden administration has put towards COVAX, the initiative can purchase 330 million more COVID-19 vaccine doses.

With Biden, the cancer community has an ally in the White House. And yet, with the IP waiver, he's undermining the only industry that may find a cure for cancer.