### 1

#### Climate Patents and Innovation high now and solving Warming but the plan sets a dangerous precedent for appropriations - the mere threat is sufficient is enough to kill investment.

Brand 5-26, Melissa. “Trips Ip Waiver Could Establish Dangerous Precedent for Climate Change and Other Biotech Sectors.” IPWatchdog.com | Patents & Patent Law, 26 May 2021, www.ipwatchdog.com/2021/05/26/trips-ip-waiver-establish-dangerous-precedent-climate-change-biotech-sectors/id=133964/. //sid

The biotech industry is making remarkable advancestowards 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](https://www.ipwatchdog.com/2021/04/19/waiving-ip-rights-during-times-of-covid-a-false-good-idea/id=132399/)), 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](https://www.ipwatchdog.com/2021/05/05/tai-says-united-states-will-back-india-southafrica-proposal-waive-ip-rights-trips/id=133224/) 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. 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 compensationand 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 proprietaryknow-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 internationalcollaborations. 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](https://www.bio.org/sites/default/files/2021-04/Climate%20Report_FINAL.pdf). 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 investat the current and required levels**.**

#### Climate Patents are critical to solving Warming – only way to stimulate Renewable Energy Technology Investment.

Aberdeen 20 Arielle Aberdeen October 2020 "Patents to climate rescue: how intellectual property rights are fundamental to the development of renewable energy" <https://www.4ipcouncil.com/application/files/4516/0399/1622/Intellectual_Property_and_Renewable_Energy.pdf> (Caribbean Attorney-at-Law with extensive experience in legal research and writing.)//Elmer

**Climate change is** the **most pressing** global **challenge** and with the international commitment to reduce greenhouse gas emissions under the Paris Agreement,1 there **needs to be a global energy revolution** and transition.2 This is where **innovative technology can help** meet the challenge of reducing our dependency on finite natural capital resources. The development and deployment of innovative technology play a pivotal role in enabling us to replace fossil fuel use with more sustainable energy solutions. **Patents** have **facilitated** the **development of such innovative technologies** thus far **and** will **continue to be the catalyst for this transition**. Patents are among a group of intellectual property rights (‘IPRs’). 3 These are private and exclusive rights given for the protection of different types of intellectual creations. IPRs are the cornerstone of developed and knowledge-based economies, as they encourage innovation, drive the investment into new areas and allow for the successful commercialisation of intellectual creations. IPRs are the cornerstone of developed and knowledge-based economies. Empirical evidence has shown that a **strong IPRs** system **influences** both the **development and diffusion of technology**. Alternatively, **weak IPRs** protection has been shown to **reduce** **innovation**, **reduce investment** and prevent firms from entering certain markets.4 Once patent protection has been sought and granted, it gives a time-limited and exclusive rights to the creator of an invention. This allows the inventor or patentor the ability to restrict others from using, selling, or making the new invented product or process. Thereby allowing a timelimited monopoly on the exploitation of the invention in the geographical area where it is protected. During the patent application procedure, the patentor must make sufficient public disclosure of the invention. This will allow others to see, understand and improve upon it, thereby spurring continuous innovation. Therefore, the patent system through providing this economic incentive is a successful tool which has encouraged the development and the dissemination of technology. Patents like all IPRs are key instruments in the global innovation ecosystem.5 When developing innovative technology, patents play a role throughout the “technological life cycle”,6 as shown in Figure 1. This lifecycle involves the invention, research and development (‘R&D’), market development and commercial diffusion. Patents are most effective when sought at the R&D stage. Once a patent has been granted, it becomes an asset which can then be used to7: Gain Market Access: Patents can create market advantages; to develop and secure market position; to gain more freedom to operate within a sector and reduce risks of infringing on other patents; protect inventions from being copied, and removes delaying by innovative firms to release new or improved technology and encourage the expansion of their markets. Negotiation leverage: Patents can build a strong brand or company reputation which can enhance the company’s negotiation power and allow for the creation of equal partnerships. Funding: Patents can generate funding and revenue streams for companies. Having a strong patent portfolio especially in small businesses or start-ups can be used to leverage investor funding; while also be a source of revenue for companies through licensing fees, sales, tax incentives, collateral for loans and access to grants and subsidies. Strategic value: Patents can be used to build “synergistic partnerships”8 through which collaboration on R&D and other partnerships; be used to improve in-house R&D and build and/ or develop more products. As such, obtaining and managing patent as part of a patent and broader IPRs strategy are key tools for business success, especially within highly innovative and technology-driven industries.9 Renewable Energy: The Basics Renewable energy is derived from natural unlimited sources which produce little to no harmful greenhouse gases and other pollutants. 10 Innovative renewable energy technologies (‘RETs’) have created the ability to tap into these sources and convert them to energy which can then be stored, distributed, and consumed at a competitive cost. RETs have developed into a technology ecosystem which consists of alternative energy production, energy conservation and green transportation.11 For energy production, RETs have been developed to generate energy from six main sources. These are: Wind energy: Technology, via off-shore and/or on-shore wind turbines, harnesses the energy produced by the wind. Solar energy: Technology either through concentrated solar power (‘CSP’)and solar photovoltaic (‘PV’) harnesses the energy produced by the sun. Hydropower: Technology either through large-scale or small-scale hydropower plants, captures energy from flowing water. Bioenergy: Technology is used to convert organic material into energy either through burning to produce heat or power or through converting it to a liquid biofuel. Geothermal: Technology is used to capture the energy from the heat produced in the earth’s core. Ocean/Tidal energy: Technology is used to capture the energy produced from waves, tides, salinity gradient energy and ocean thermal energy conversion. Out of these six sources, the wind, solar and hydropower energy sectors are the biggest, the most developed and the most widely used. While geothermal and ocean energy sources are used in a more limited capacity. In particular, the RETs in ocean energy is still at its infancy and thus presents an opportunity for future innovation and commercialisation. Renewable energy is the fastest-growing energy source, with the electricity sector showing the fastest energy transition. 12 In 2016, renewable energy accounted for 12% of final global energy consumption and in 2018, a milestone was reached with renewables being used to generate 26% of global electricity. The source of this energy has been driven by renewable hydropower, as shown in Figure 2, with wind and solar energy trailing behind in energy production. However, the International Energy Agency (‘IRENA’) forecasts that Solar PV will lead RETs to increase capacity in the upcoming years. 13 This rise in renewable energy is due to the increased investment into the sector and the development, diffusion and deployment of innovative RETs. For the period between 2010 and 2019, there were 2.6 trillion US dollars invested in renewable energy. 14 The majority of which being focused on solar energy. 15 This investment has surpassed the investment made into the traditional fossil fuel energy 16 and has been heavily driven by the private sector. 17 The International Energy Agency recent report showed that its members increased the public budgets for energy technology R&D, with the biggest increase in the low-carbon sectors.18 The geographic sources of this investment shown in Figure 3, reveals that the European Union, the United States and Japan are part of the largest investors. This reflects the historic involvement these countries have had in the renewable energy arena and the development of RETs. However, there is now the emergence of China, India and Brazil as large investors in this field. This trend in investment has also coincided with the increase in patenting technology in renewable energy compared to fossil fuels.19 Reports from the World Intellectual Property Office (WIPO), have shown that there has been a **steady increase in patent filing rates in RETs since the mid-1990s**.20 This increase has occurred in the four major renewable sectors, 21 where RETs patents applications were growing steadily from 2005 until reaching a peak in 2013.22 Post-2013, there has been a slight decline in patent filings, which can indicate a maturing of sectors and deployment of technologies.23 Each renewable energy sector is at a different stage of maturity and thus there is a variation of patent ownership. The wind sector is the most mature and consequently has the highest intellectual property ownership and patent grants compared to that of the biofuel sector. 24 IRENA also provides a comprehensive and interactive database for RETs patents. As seen in Figure 4 below, they have collected patent data from the major patent filing jurisdiction25 which shows the breakdown of the patents per type. This information reveals that there is a dominance of patent filings focused on solar technology. This data corresponds to the focus of the investment in renewable energy into solar energy. Upon closer look at the data, the geographic source of these patents shows that RETs patents have been concentrated in a few developed OECD countries and China. This also corresponds to the source of investment shown in Figure 3 and reflects the historical concentration of RETs innovation within these countries. 26 The latest WIPO report for 2019, which looks at the data for PCT patent applications, shows that 76 % of all PCT patent application came from the United States, Germany, Japan, the Republic of Korea and China.27 China is the newest entry into the top ten list and has made one of the largest jumps to become one of the biggest RETs patent filers at the PCT. This geographic data is also mirrored by IRENA’s statistics, as shown in Figure 5 below. This data also reflects China’s emerging renewable dominance. China is heavily **investing in solar energy** **technology** and has filed numerous patents in this area and the underlying technologies.28 The successful flow of investment in this sector can only **occur in** the **presence of a strong IPRs system** and protection. Government policies and initiatives to improve the **patent system** can be used to promote the development of RETs and drive private capital and investment into this area.29 This direct **effect on RETs** through policies was **shown in** the United States with the ‘**Green Tech Pilot Program’**.30 This was a special accelerated patent application procedure developed by the United States Patent and Trademark Office for inventions falling under the green technology category. This program ran from 2009-2011 and led to a boost in RETs patent applications, with the office issuing 1062 RETs patents from the programme. Other jurisdictions, such as the European Union and China have used policy and incentives to promote the development of RETs and the advancement of their renewable energy sector. In particular, the European Union and China began the renewable energy path at different starting points but are now both dominant players in this area.

#### Climate change destroys the world.

Specktor 19 [Brandon writes about the science of everyday life for Live Science, and previously for Reader's Digest magazine, where he served as an editor for five years] 6-4-2019, "Human Civilization Will Crumble by 2050 If We Don't Stop Climate Change Now, New Paper Claims," livescience, <https://www.livescience.com/65633-climate-change-dooms-humans-by-2050.html> JW

\*\*Cites and talks about the Spratt and Dunlop study

What might an accurate worst-case picture of the planet's climate-addled future actually look like, then? The authors provide one particularly grim scenario that begins with world governments "politely ignoring" the advice of scientists and the will of the public to decarbonize the economy (finding alternative energy sources), resulting in a global temperature increase 5.4 F (3 C) by the year 2050. At this point, the world's ice sheets vanish; brutal droughts kill many of the trees in the [Amazon rainforest](https://www.livescience.com/57266-amazon-river.html) (removing one of the world's largest carbon offsets); and the planet plunges into a feedback loop of ever-hotter, ever-deadlier conditions.

"Thirty-five percent of the global land area, and 55 percent of the global population, are subject to more than 20 days a year of [lethal heat conditions](https://www.livescience.com/55129-how-heat-waves-kill-so-quickly.html), beyond the threshold of human survivability," the authors hypothesized.

Meanwhile, droughts, floods and wildfires regularly ravage the land. Nearly one-third of the world's land surface turns to desert. Entire ecosystems collapse, beginning with the planet's coral reefs, the rainforest and the Arctic ice sheets. The world's tropics are hit hardest by these new climate extremes, destroying the region's agriculture and turning more than 1 billion people into refugees.

This mass movement of refugees — coupled with [shrinking coastlines](https://www.livescience.com/51990-sea-level-rise-unknowns.html) and severe drops in food and water availability — begin to stress the fabric of the world's largest nations, including the United States. Armed conflicts over resources, perhaps culminating in nuclear war, are likely.

The result, according to the new paper, is "outright chaos" and perhaps "the end of human global civilization as we know it."

### 2

#### India’s COVID crisis has killed Modi’s appetite for international adventurism, but increasing vaccine production reverses the trend.

Singh ’21 (Sushant; senior fellow with the Centre for Policy Research in India; 5-3-2021; “The **End** of Modi’s **Global Dreams**”; Foreign Policy; https://foreignpolicy.com/2021/05/03/india-vishwaguru-modi-second-wave-soft-power-self-sufficiency/; Accessed: 8-27-2021)

India’s prime minister advanced a **muscular foreign policy**, but his mishandling of the pandemic is an **embarrassing step back**. In December 2004, when an earthquake and tsunami struck Asia, then-Indian Prime Minister Manmohan Singh decided it was high time for India to stop accepting aid from other countries to deal with disasters and rely on itself instead. “We feel that we can cope with the situation on our own,” he said, “and we will take their help if needed.” It was a pointed political statement about India’s growing economic heft, and it wasn’t the last. Singh’s government offered aid to the United States in the wake of Hurricane Katrina in 2005 and to China after the 2008 Sichuan earthquake. Seen as a matter of national pride, an indicator of self-sufficiency, and a snub to nosy aid givers, the practice continued under Indian Prime Minister Narendra Modi despite pressure to change course during floods in the southern state of Kerala in 2018. Modi, who has consistently campaigned on **virulent nationalism** captured by the slogan “Atmanirbhar Bharat” (or self-reliant India), has been forced to abruptly change policy. Last week, with images of people dying on roads without oxygen and crematoriums for pet dogs being used for humans’ last rites as the second wave of the COVID-19 pandemic overwhelmed the country, his government accepted offers of help from nearly 40 other nations. Its diplomats have lobbied with foreign governments for oxygen plants and tankers, the arrival of medicines, and other supplies hailed on social media. “We have given assistance; we are getting assistance,” said Harsh Vardhan Shringla, the country’s top diplomat, to justify the embarrassing U-turn. “It shows an interdependent world. It shows a world that is working with each other.” The world may be working with each other, but it is not working for Modi in the **realm of foreign policy**. Rather, this is a moment of reckoning, triggered by the rampaging coronavirus. After seven years as prime minister, Modi’s **hyper-nationalistic** domestic agenda—including his ambition of making the country a “Vishwaguru” (or **master to the world**)—now lies in tatters. India, which has been envisaged since former U.S. President Donald Trump’s administration became the Quadrilateral Security Dialogue’s lynchpin and focused other efforts in the Indo-Pacific strategy to counter China, will have to work harder to justify that role. Meanwhile, China has redoubled its efforts in India’s neighborhood since the second wave began, strengthening its existing ties with South Asian countries and contrasting its strength and reliability with India’s limitations. No doubt, New Delhi will be able to regain a certain sense of normalcy in a few months, but the **mishandling of the pandemic** has dealt it a weaker hand in **ongoing backchannel talks with Islamabad** and border negotiations with Beijing. But even **longer-lasting damage** has been done to India’s soft power, which was already dented under Modi’s authoritarian regime. This is a big problem for the government as it was soft power that allowed New Delhi to assert itself for a seat at the global high table to begin with. Front page images and video clips of constantly burning pyres and dying patients may recede from the foreground with time, but rebuilding India’s diplomatic heft and geopolitical prominence will need more than the passage of months and years. It will take a concerted effort, and S. Jaishankar, Modi’s chosen man to be India’s foreign minister, has so far appeared unequal to the task. In March, when the second wave of the pandemic started unfolding in India, Jaishankar’s ministry was busy issuing official statements and organizing social media storms against popstar Rihanna and climate change activist Greta Thunberg. On Thursday, at the peak of the health crisis, Jaishankar’s focus in a meeting with all the Indian ambassadors to various global capitals was on countering the so-called “one-sided” narrative in international media, which said Modi’s government had failed the country by its “incompetent” handling of the second pandemic wave. Until recently, Jaishankar was also the most enthusiastic promoter of the government’s Vaccine Maitri (or “Vaccine Friendship”) program, under which New Delhi supplied around 66.4 million doses of the India-made AstraZeneca vaccine to 95 countries in packing boxes marked prominently with large pictures of Modi. These vaccines were either commercially contracted, given as bilateral grants, or transferred under the World Health Organization’s COVID-19 Vaccines Global Access (COVAX) scheme for poorer countries. Meanwhile, India’s own vaccination rollout has been **dismal**. Around 2 percent of Indians have been fully vaccinated, despite the country being the world’s biggest vaccine manufacturer—a misstep that has emerged as one of the key culprits for India’s uncontrolled second wave. Having exported doses in a quest for personal glory, Modi is now awaiting 20 million doses of AstraZeneca vaccines from the United States after abruptly reversing 16 years of policy, as indicated in its disaster management documents, against **accepting bilateral aid**. It is bad enough that India is getting help from traditional partners like the United States and Russia, but it is also accepting supplies coming from China, with which India’s relationship has been increasingly strained under Modi. And it must have been particularly galling to the prime minister that **even Pakistan** made an offer to help with medical supplies and equipment. So woeful is India’s situation that it has started importing 88,000 pounds of medical oxygen daily from the tiny Himalayan kingdom of Bhutan. Most Indians acknowledge their country was in an economic recession last year, and accepting bilateral aid is more of a compulsion than a choice. But how will they reconcile that with the fact that work on a $2 billion project to reconstruct a government office complex in the national capital, including building a new residence for Modi, continues unabated as an “essential service” during the pandemic? Modi boasted of having made India a **Vishwaguru** and personally enhancing national prestige through his numerous global trips. His ultranationalist supporters had started assuming India was already a **global power** in the same league as the United States and China. This feeling tied in with his domestic political positioning. Hindutva, or homogenized Hindu nationalism, was offered as the ideology that had made this supremacy possible. But now Modi’s supporters find their dreams of a **global power shattered.** They must instead confront the harsh reality of being citizens of a so-called “third world country,” which is dependent once again on the largesse of others. As the Indian economy continues to be hammered by the pandemic, there is little Modi can offer economically to his base. The edifice of **nationalist** pride, prestige, and **global respect** built by Modi on his so-called foreign-policy prowess has been demolished by the pandemic. The pandemic has hurt India in other ways too. Australia, a member of the Quadrilateral Security Dialogue (or Quad), has imposed a ban on its citizens from returning home, threatening five-year prison sentences, if they have spent time in India. In its first leaders’ summit in March, the grouping decided to provide a billion doses of the COVID-19 vaccine to the Indo-Pacific region by 2022. The vaccines were to be produced in India, funded by the United States and Japan, and distributed by Australia, in what was seen as the showpiece initiative to move the Quad away from its security-centric approach and soften its reputation as an anti-China grouping. With India struggling to produce vaccines for its own citizens hit by the pandemic, it is unlikely the Quad will be able to keep its scheme on schedule. In the bargain, New Delhi’s position as the lynchpin of the Quad stands considerably diminished. If India stumbles, the American dream of the Quad can never become a reality. Beijing has already moved in to take advantage of India’s misfortune to strengthen its ties with other South Asian countries. Last Tuesday, the Chinese foreign minister held a meeting with his counterparts from Afghanistan, Bangladesh, Nepal, Pakistan, and Sri Lanka for cooperation against COVID-19. India was absent from the meeting. And although Afghanistan, Bangladesh, Nepal, and Sri Lanka have received some vaccine supplies from India and expect more, these countries are now looking toward Beijing for doses after New Delhi failed to keep up its commercial and COVAX commitments. In the race between the two Asian giants to be an attractive and reliable partner in South Asia, India seems to have finished behind China. China has also pressed its advantage along its restive border with India. After an initial disengagement in Ladakh, India, China refused to pull back any further from other Indian-held territories it had moved into last summer. It stonewalled Indian attempts to discuss these areas in the last round of talks between the two sides, and it has constructed permanent military infrastructure and deployed troops close to the disputed border. If there were ever a time for India to demonstrate its strength, it would be now. But the second wave of COVID-19 has forced **the opposite**. A similar impact will be felt during New Delhi’s ongoing backchannel talks with Islamabad, where Pakistan will likely try to take **full advantage** of any **chinks in India’s armor**. India cannot afford to walk away from those talks as it has already been forced to engage with Islamabad due to its own inability to handle a two-front threat from China and Pakistan. An economy and a country ravaged by the pandemic makes the dual threat an even more **challenging proposition** for India—and hands Pakistan an unexpected advantage in the talks.

#### **Revitalized risk-taking risks Indo-Pak confrontations – those go nuclear.**

Roblin ‘20 [Sebastien; university instructor for the Peace Corps in China, master’s degree in conflict resolution from Georgetown University; 3-16-2020; "Yes a Pakistani-Indian Nuclear War Would Kill People All Over the Planet"; National Interest; https://nationalinterest.org/blog/buzz/yes-pakistani-indian-nuclear-war-would-kill-people-all-over-planet-133642; accessed 3-17-2020]

Such assessments are not only shockingly callous but shortsighted. In fact, several studies have modeled the global impact of a “limited” ten-day nuclear war in which India and Pakistan each exchange fifty 15-kiloton nuclear bombs equivalent in yield to the Little Boy uranium bomb dropped on Hiroshima. Their findings concluded that spillover would in no way be “limited,” directly impacting people across the globe that would struggle to locate Kashmir on a map. And those results are merely a conservative baseline, as India and Pakistan are estimated to possess over 260 warheads. Some likely have yields exceeding 15-kilotons, which is relatively small compared to modern strategic warheads. Casualties Recurring terrorist attacks by Pakistan-sponsored militant groups over the status of India’s Muslim-majority Jammu and Kashmir state have repeatedly led to threats of a conventional military retaliation by New Delhi. Pakistan, in turn, maintains it may use nuclear weapons as a first-strike weapon to counter-balance India’s superior conventional forces. Triggers could involve the destruction of a large part of Pakistan’s military or penetration by Indian forces deep into Pakistani territory. Islamabad also claims it might authorize a strike in event of a damaging Indian blockade or political destabilization instigated by India. India’s official policy is that it will never be first to strike with nuclear weapons—but that once any nukes are used against it, New Dehli will unleash an all-out retaliation. The Little Boy bomb alone killed around 100,000 Japanese—between 30 to 40 percent of Hiroshima’s population—and destroyed 69 percent of the buildings in the city. But Pakistan and India host some of the most populous and densely populated cities on the planet, with population densities of Calcutta, Karachi and Mumbai at or exceeding 65,000 people per square mile. Thus, even low-yield bombs could cause tremendous casualties. A 2014 study estimates that the immediate effects of the bombs—the fireball, over-pressure wave, radiation burns etc.—would kill twenty million people. An earlier study estimated a hundred 15-kiloton nuclear detonations could kill twenty-six million in India and eighteen million in Pakistan—and concluded that escalating to using 100-kiloton warheads, which have greater blast radius and overpressure waves that can shatter hardened structures, would multiply death tolls four-fold. Moreover, these projected body counts omit the secondary effects of nuclear blasts. Many survivors of the initial explosion would suffer slow, lingering deaths due to radiation exposure. The collapse of healthcare, transport, sanitation, water and economic infrastructure would also claim many more lives. A nuclear blast could also trigger a deadly firestorm. For instance, a firestorm caused by the U.S. napalm bombing of Tokyo in March 1945 killed more people than the Fat Man bomb killed in Nagasaki. Refugee Outflows The civil war in Syria caused over 5.6 million refugees to flee abroad out of a population of 22 million prior to the conflict. Despite relative stability and prosperity of the European nations to which refugees fled, this outflow triggered political backlashes that have rocked virtually every major Western government. Now consider likely population movements in event of a nuclear war between India-Pakistan, which together total over 1.5 billion people. Nuclear bombings—or their even their mere potential—would likely cause many city-dwellers to flee to the countryside to lower their odds of being caught in a nuclear strike. Wealthier citizens, numbering in tens of millions, would use their resources to flee abroad. Should bombs beginning dropping, poorer citizens many begin pouring over land borders such as those with Afghanistan and Iran for Pakistan, and Nepal and Bangladesh for India. These poor states would struggle to supports tens of millions of refugees. China also borders India and Pakistan—but historically Beijing has not welcomed refugees. Some citizens may undertake risky voyages at sea on overloaded boats, setting their sights on South East Asia and the Arabian Peninsula. Thousands would surely drown. Many regional governments would turn them back, as they have refugees of conflicts in Vietnam, Cambodia and Myanmar in the past. Fallout Radioactive fallout would also be disseminated across the globe. The fallout from the Chernobyl explosion, for example, wounds its way westward from Ukraine into Western Europe, exposing 650,000 persons and contaminating 77,000 square miles. The long-term health effects of the exposure could last decades. India and Pakistan’s neighbors would be especially exposed, and most lack healthcare and infrastructure to deal with such a crisis. Nuclear Winter Studies in 2008 and 2014 found that of one hundred bombs that were fifteen-kilotons were used, it would blast five million tons of fine, sooty particles into the stratosphere, where they would spread across the globe, warping global weather patterns for the next twenty-five years. The particles would block out light from the sun, causing surface temperatures to decrease an average of 2.7 degrees Fahrenheit across the globe, or 4.5 degrees in North American and Europe. Growing seasons would be shortened by ten to forty days, and certain crops such as Canadian wheat would simply become unviable. Global agricultural yields would fall, leading to rising prices and famine. The particles may also deplete between 30 to 50 percent of the ozone layer, allowing more of the sun’s radiation to penetrate the atmosphere, causing increased sunburns and rates of cancer and killing off sensitive plant-life and marine plankton, with the spillover effect of decimating fishing yields.

### 3

#### Counterplan text: The member nations of the World Trade Organization, except for the Republic of India, ought to reduce intellectual property protections for medicines during pandemics.

### 4

#### Counterplan Text: The United States federal government ought to

#### establish a global leadership role in production and distribution of COVID-19 vaccines and treatments by engaging in talks with NATO and the G-7

#### expand support of COVAX including at minimum

#### vaccinating one billion people around the globe by November 2021

#### encourage public-private partnerships and facilitate overseas licensing agreements without reducing intellectual property rights.

#### The CP solves vaccine distribution and re-vitalizes American influence BUT US leadership is key.

Gayle et Al 21 Helene Gayle, Gordon LaForge, and Anne-Marie Slaughter 3-19-2021 "American Can-and Should-Vaccinate the World" <https://archive.is/wtVC2#selection-1369.0-1369.54> (Helene D. Gayle, MD, MPH, has been president and CEO of The Chicago Community Trust, one of the nation’s oldest and largest community foundations, since October 2017. Under her leadership, the Trust has adopted a new strategic focus on closing the racial and ethnic wealth gap in the Chicago region. For almost a decade, Dr. Gayle was president and CEO of CARE, a leading international humanitarian organization. An expert on global development, humanitarian, and health issues, she spent 20 years with the Centers for Disease Control, working primarily on HIV/AIDS.)//Elmer

After a virtual “Quad summit” last Friday, the leaders of the United States, India, Japan, and Australia announced that they would cooperate to deliver **one billion vaccine doses** in the Indo-Pacific, directly countering China’s lead in distributing vaccines to the region. The agreement brings together Indian manufacturing and U.S., Japanese, and Australian financing, logistics, and technical assistance to help immunize hundreds of millions of people by the end of 2022. Headlines over the weekend proclaimed that the administration of U.S. President Joe Biden was preparing to catch up in global vaccine diplomacy. Yesterday the administration took a further step in this direction, leaking to reporters that it would lend four million AstraZeneca doses to Mexico and Canada. These initiatives come not a moment too soon. In tackling the worst global crisis of a lifetime, the United States has so far been upstaged. Russia and China have aggressively marketed and distributed their vaccines to foreign countries, largely **to advance foreign policy goals**. Russia is using the jab to **bolster** its **image** and investment prospects and to drive a **wedge between EU countries**. China is donating doses to gain leverage **in territorial disputes** and expand its influence under the Belt and Road Initiative. Both Moscow and Beijing have moved to undercut the United States **in its own backyard by supplying vaccines to Latin America**. The Biden administration is right to want to take the lead in vaccinating the world, for a host of reasons both self-interested and altruistic. But it should not fall into the trap of trying to beat Russia and China at their own game—handing out vaccines to specific countries based on their geostrategic importance and the amount of attention they are receiving from rival powers. Rather, Biden should pursue **abroad the sort of “all in” unity** approach that he has proclaimed at home. His administration should focus less on strategic advantage than on vaccinating the largest number of people worldwide in the shortest amount of time. In so doing, the United States would concentrate on what the world’s peoples have in common—susceptibility to this and many other viruses—regardless of the nature of their governments. ALL IN AND ALL OUT The United States has successfully mobilized its own and international resources to respond to regional crises in the past. In 2003, President George W. Bush started the U.S. President’s Emergency Plan for AIDS Relief, the largest global health program focused on a single disease in history. PEPFAR brought together U.S. agencies, private companies, and local civil society groups to help sub-Saharan Africa and Southeast Asia get the AIDS crisis under control, saving millions of lives. In 2004, a tsunami in the Indian Ocean caused more than 220,000 deaths and billions in damage, and the United States led an urgent, similarly inclusive humanitarian relief and recovery effort that rescued victims, hastened reconstruction, and built lasting goodwill in South and Southeast Asia. Biden can improve on Bush’s precedent by going global, and he has already taken steps toward doing so. Under President Donald Trump, the United States refused to participate in the COVID-19 Vaccine Global Access (COVAX) Facility, an international partnership that aims to guarantee COVID-19 vaccine access for the entire world. The Biden administration reversed this stance immediately and contributed $4 billion, making the United States the largest donor to the effort. Still, even if COVAX meets the ambitious target of delivering two billion doses to developing nations by the end of 2021, it will be able to vaccinate only 20 percent of those countries’ populations. Just imagine, however, what could happen if Washington were to treat COVID-19 as **the equivalent** of the enemy in a world war or the pandemic as a global version of the regional AIDS and Ebola epidemics of years past. Imagine, in other words, what all-out mobilization would look like if the United States treated the COVID-19 pandemic like the global threat that it is. Washington would lead a multilateral, whole-of-society effort **to help COVAX vaccinate** the world. The government would activate the military and call upon allies in the G-7 and NATO for a major assistance operation that speeds the **flow of vaccine supplies** and **strengthens delivery systems**. As it has pledged to do in the Quad summit deal, the U.S. government would use the State Department, U.S. Agency for International Development (USAID), Centers for Disease Control and Prevention (CDC), and other civilian agencies and development programs to help countries with their national vaccination programs. And it would enlist companies, nonprofits, and civil society organizations to help increase vaccine production, raise funding, and provide technical assistance to foreign counterparts. The U.S. government should undertake exactly such an effort, right now: **an all-out response for an all-in global vaccination campaign.** Such a campaign would advance **U.S. economic and security interests** and reboot American global leadership after years of decline. Rather than perpetuate the transactional, friend-by-friend vaccine diplomacy of China and Russia, a U.S.-led vaccine effort could invigorate a new multilateralism that is more pragmatic and inclusive than the twentieth-century international order and better adapted to tackling twenty-first-century global threats. Washington would do well to remember that if COVID-19 does come back, authoritarian governments will be able to lock down their populations more quickly and effectively than democracies will, so even in competitive terms, America’s best bet really is to eradicate the novel coronavirus. The United States has a momentous opportunity to prove both that democracy can deliver and that **American ideals truly are universal**. By offering a model of global cooperation that draws on a far wider range of resources than any one government can provide, the United States can lead a vaccine effort that builds on the strengths of its open and pluralist society. President Biden would demonstrate unequivocally that the United States is not only “back” but looking—and leading—far ahead. THE CASE FOR GOING REALLY BIG The COVID-19 pandemic is the most extensive humanitarian and economic catastrophe of modern times. Though it lacks the cataclysmic impact of a natural disaster, its toll is far worse and more widespread. A reported 2.6 million have died from COVID-19, though that is certainly an undercount; one analysis of premature and excess mortality estimates 20.5 million years of life have been lost. According to the World Bank, the pandemic pushed as many as 124 million into extreme poverty in 2020, the first year of increase in two decades. The Economist estimates that two years of COVID-19 will cost the world $10.3 trillion—a downturn the World Bank says is twice as deep as the Great Recession. Ultimately, the only way to arrest, let alone reverse, this collapse is global vaccination. The Biden administration learned an important lesson from the government’s response to the 2008 financial crisis: do not be afraid to go big. The American Rescue Plan does just that, funneling $1.9 trillion into many different parts of the economy. The administration should heed the same advice when it comes to vaccinating the world. An all-out effort will have the **greatest and quickest impact** on the fight against COVID-19—and the impact it will have is squarely in America’s self-interest. The United States has much to gain from an accelerated recovery of the global economy. A study from the Eurasia Group estimated that vaccinating low- and middle-income nations would generate at least $153 billion for the United States and nine other developed economies in 2021 and up to $466 billion by 2025. Even if the United States vaccinates its entire population, its economic recovery will still drag so long as its trading partners don’t have full access to the vaccine and the pandemic continues. As Biden has said, “We’re not going to be ultimately safe until the world is safe.” Moreover, today’s pandemic will not be the last. The partnerships and public health infrastructure that the United States builds to inoculate the world from this coronavirus will also defend it against the next deadly pathogen or health threat. Protecting the nation against disease cannot be separated from protecting the world.

#### Waiving IP rights undercuts the perception of American medical innovation superiority which allows China and Russia to expand influence – a unilaterally-led global effort jumpstarts Vaccine Diplomacy in the face of Chinese and Russian weakness.

Sasse 5-17 Ben Sasse 5-17-2021 "U.S. Can Stop the Pandemic and Counter China" <https://archive.is/NOKMj#selection-4197.0-4265.96> (Ben Sasse has a bachelor's degree in government from Harvard University, a Master of Arts in liberal studies from St. John's College and master's and doctoral degrees in American history from Yale University. He taught at the University of Texas and served as an assistant secretary in the U.S. Department of Health and Human Services.)//Elmer

Covid-19 exploded in part because the Chinese Communist Party was apathetic about other nations’ health and covered up the pandemic during its initial months by lying to and through international public-health organizations. The vaccines that will now beat Covid-19 should likewise **spread rapidly world-wide because the U.S. cares for the health of our neighbors around the globe**. The world should know that this virus grew deadlier because of a **tyrannical system’s paranoia**, and the life-saving remedy is emerging from the **innovative power of democratic capitalism**. Washington is late **to vaccine diplomacy** but not too late. The framing of every new program as a “Marshall Plan” for this or that is overused, but this is a genuine **once-in-a-generation opportunity** to show the world **what U.S. leadership looks** like. Covid-19 came from China. The most effective vaccines against it come from the United States of America. The U.S. should set a goal of vaccinating more than one billion people around the world by Thanksgiving—and **without dumping intellectual property**, a foolish act with perverse consequences. Consider both the idealist and realist cases for stepping into this global leadership role. This terrible virus has wrought a continuing humanitarian crisis. A second wave is devastating India: Hospitals are full, oxygen tanks are scarce, and makeshift crematoriums are struggling to keep up. As the virus sweeps through remote villages, bodies are washing up on the shores of the Ganges River. As a country dedicated to the principle that all are created equal, the U.S. won’t turn our back on these men, women and children. Now the two realist cases: First, all available data indicate the vaccines developed by the U.S. pharmaceutical industry—the result of years of research, accelerated by the public-private Operation Warp Speed—**are by far the best** in the world. But most people and nations don’t know that. Instead the Chinese Communist Party has exploited the suffering of the developing world to advance its own interests. In its usual mafioso fashion, Beijing has made delivery of vaccines contingent on the recipient nation’s breaking diplomatic ties with Taiwan, or agreeing to use Huawei—China’s tech giant/espionage agency—to provide 5G internet service. China has charged astronomical prices for garbage vaccines. The second realist case for vaccine diplomacy is the danger that the virus will mutate to evade vaccines. America’s vaccines can stop this—they’ve proved effective against all known global strains—but it’s a race against time. Unfortunately, the Biden administration wants to surrender America’s Covid-19 vaccine technology **to anyone who wants it—including China**. That is the substance of the May 5 announcement that the U.S. will enter into negotiations at the World Trade Organization to waive the Agreement on Trade-Related Aspects of International Property Rights for Covid vaccine technology. This would do little to speed the distribution of effective vaccines, but it would create **substantial disincentives to invest in innovation**.

The mRNA technology at the heart of our vaccines is the result of decades of American investment and labor, and it’s a leg up on the next global health crisis. Ceding this advantage to the Chinese Communist Party all but guarantees that we will **lose the next vaccine race**, and that **Beijing will have the upper hand abroad.** China’s corrupt leadership won’t need to hack our databases; they’ll simply use our freely surrendered technological advances **to undermine us abroad**. There’s a better way. America can vaccinate a billion people around the globe. It’s going to take work and investment. The administration should make vaccine diplomacy the State Department’s top budget priority and begin working with pharmaceutical companies on cost-sharing agreements. We need to encourage public-private partnerships and facilitate overseas licensing agreements to enable American pharmaceutical companies to export vaccines **without surrendering their legal rights**. We need to encourage donations from America’s unused vaccine supply. Getting personal protective equipment, oxygen and ventilators into doctors’ hands abroad is saving lives every day, so we should expand exports of these and related items. Likewise, we should break open the supply-chain bottleneck that is thwarting the delivery of cargo. **The developing world lacks vaccine manufacturing, storage and distribution capacities—and none of these problems are solved by an IP giveaway**. A U.S. public-private program to **advance vaccine diplomacy** will help more people **more quickly**. These vaccines must be accompanied by a message that reaches from heads of state to remote villages. The State Department can spearhead an information blitz that reminds government leaders every vaccine dose taken from the Chinese Communist Party has dangers and strings attached, but America offers an immediate solution. It’s not only party leaders and heads of state who need to understand the benefits. When the U.S. fights famine, we send bags of rice with the American flag. When the U.S. fights Covid-19, every Band-Aid and bag of cotton balls needs to be stamped with Old Glory. Every person who accepts an American vaccine should know exactly where it came from. In less than a year, American physicians, scientists and pharmaceutical companies confronted an extremely potent virus, created multiple effective vaccines, and produced enough of them to inoculate the majority of our 330 million citizens. This extraordinary achievement is a testament to American innovation and to our system of free competition, targeted private-public partnership and robust legal protections. The Chinese alternative—a system of state-sponsored mismanagement, deception and coercion—has shown itself to be not only a failure, but a failure big enough to infect the globe. The message is simple: Americans are here to help. Uncle Sam, not Chairman Xi, can end Covid-19.

### 5

#### Counterplan Text: Member states of the World Trade Organization ought to:

#### - should establish a major prize for companies and institutions that collaborate to produce a successful [treatment for new infectious diseases] with all grant recipients obliged to donate to a common patent pool governed by a Patent Pool authority in accordance with the recommendations of the Goozner evidence.

#### - vest the office of the Vice President, or domestic equivalent, with the power to coordinate national biodefense response, establish a White House Biodefense Coordination Council, commit funding to support state, tribal, territorial, and local health departments, implement a national bio-surveillance program that incorporates animal data

#### Drug Prizes Plank solves the Aff and Patent Pooling Plank solves Access – an approach that utilizes IP is key.

Goozner 6, Merrill. "Innovation in biomedicine: can stem cell research lead the way to affordability?." PLoS medicine 3.5 (2006): e126. (Director of the Integrity in Science Project, Center for Science in the Public Interest)//Elmer

Jumping into the Pool **CIRM** and other stem cell funders **can become catalysts for cutting** **through** this **patent thicket.** They can **require** that **all grant recipients** **agree to donate the exclusive license** to any insights, materials, and technologies that they patent **to a common patent pool** supervised by a new, nonprofit organization set up for that purpose. A patent pool **serves as a one-stop shop where investigators can obtain no-cost or low-cost licenses for subsequent research**. Patent pools have been successfully used in other high-technology industries such as consumer electronics and software to facilitate the development of new technologies that either require common standards or rest on a common base of basic research. **Several patent law firms and close observers of medical research have suggested that patent pools can work in biomedicine** [9,10]. There is already some official interest in the patent pool approach, at least for early stage research. The CCST report to CIRM suggested mechanisms such as broad-use licenses could be used to facilitate the sharing of software, databases, and other research tools (see page 14 in [2]). The UK Stem Cell Initiative, a public–private partnership, included a call for a new UK Stem Cell Cooperative “to maximize the cross-fertilization between those involved in the subdisciplines of UK stem cell research” (see page 8 in [8]). But the stem cell patent pool needs to reach beyond the early stages of research if it is going to maximize the chances of this targeted research campaign eventually producing therapeutic results. As researchers move further down the development trail, the pool can serve as a clearinghouse for all researchers in the public or private sector to gain permissions for pursuing the next stage of their research at minimal transaction costs, including time. Moreover, the pool authority can act as an agent for resolving challenges that will inevitably arise as the research progresses, including enforcing ethical standards. For instance, the pool authority in cooperation with the FDA can set common standards for cell line preparations as research moves toward the critical clinical trial phase. And the pool should have the scale to leverage the cooperation of existing patent holders whose IP predates formation of the pool or whose future research will be funded by other governments, nonprofits, or private firms. The **pool can** also **influence accessibility** **to the fruits of downstream research**. **As a condition for obtaining a pool license**, **any researcher would** **have to contribute any IP** that results from using the pool license **back into the pool.** In the software world, this is known as open-source licensing, which was used successfully to develop the still-evolving Linux computer operating system and which is being pursued in agricultural biotechnology (R. Jefferson, personal communication; [11]). There is one major stumbling block for the use of an open-source patent pool to facilitate stem cell research. Unlike software or even agriculture biotechnology—where the end products are relatively low cost, and the costs of development are relatively evenly distributed throughout the development process—biomedical research costs escalate once a therapeutically useful product reaches clinical trials. Applied research can take five to ten years from the start of human safety experiments. While the costs of pharmaceutical research are less than the drug industry claims, the investment required can run into the tens or even hundreds of millions of dollars. As a result, this developmental research has almost always been funded by the private sector [12]. (There are, of course, many exceptions to this rule: the early HIV/AIDS medications, many cancer drugs, some vaccines, and the development of several rare-disease therapies have been entirely funded by government agencies.) The private sector's price for taking these late-stage risks is exclusive rights to the technology. Its reward, if successful, is the right to charge whatever the health-care marketplace will bear. A prize system, coupled with an open-source patent pool, is entirely consistent with the existing IP system. **Inventors** and their institutions **would retain the IP rights** to their inventions. Any **revenues generated** from the prize could be **shared** with the inventor **and reinvested** in research and education. Though the rights to the invention would be turned over to the pool, the technology-transfer officials at an institution would still have an incentive (their share of the prize) to aggressively pursue its use by downstream scientists in the public or private sectors if they feel their invention is not being properly utilized. Division of the prize could be based on mandatory arbitration among patent holders [14]. Or it could be based on the value of the research contracts that led to the underlying IP and were invested in clinical trials.

Basing the prize on investment would weight its distribution toward the parties that conducted the final phases of research—usually private-sector firms—since the trials are generally the most expensive part of therapeutic development. Governments can finance the prizes using tax-exempt bonds since a prize will only be awarded for success. At that point, the bonds can be repaid by a surcharge on each use of the new therapy as it rapidly diffuses through the health-care system. Once the prize has been awarded for a successfully developed stem cell therapy, the pool authority can grant licenses to one or more generic manufacturing firms, which can then compete to sell the therapy to health-care providers and the public on a cost-plus basis [15]. Wouldn't the surcharge to finance the prize, when added to the cost-plus production by generic manufacturers, add up to the same high prices for medicines generated by the current system? Not at all. This “shared prize model,” calibrated to the true cost of research and development, eliminates the 30%–40% of pharmaceutical industry revenue generated by wasteful marketing costs. The prize provides no rewards for industry research and development that goes to develop medicines that duplicate the action of medicines already on the market. Financing the prize with tax-exempt bonds ensures that the surcharge will be based on the lowest-cost capital available. Conclusion By combining a patent pool, an open-source model of IP development, and a shared prize system for developing stem cell therapies, the California state stem cell program can point the way to a new medical innovation system for the 21st century. This model could be used by all advanced industrial economies grappling with how to pay for the rising cost of the new medical technologies sought by their ill and aging populations.

#### Coordination plank solves disease

* MCM = medical countermeasure

Lieberman and Ridge 15 Joseph I. Lieberman, Chair & former US senator from Connecticut, and Thomas J. Ridge ‘15, Chair & Former United States Secretary of Homeland Security, “A National Blueprint for Biodefense: Leadership and Major Reform Needed to Optimize Efforts A Bipartisan Report of the Blue Ribbon Study Panel on Biodefense,” Blue Ribbon Study Panel on Biodefense, October 2015

The Challenge of Leadership Simply put, the Nation does not afford the biological threat the same level of attention as it does other threats: There is no centralized leader for biodefense. There is no comprehensive national strategic plan for biodefense. There is no all-inclusive dedicated budget for biodefense. The Nation lacks a single leader to control, prioritize, coordinate, and hold agencies accountable for working toward common national biodefense. This weakness precludes sufficient defense against biological threats. A leader must, therefore, take charge of our Nation’s response to biological crises, as well as day-to-day activities in the absence of such crises. Leadership of biodefense should be institutionalized at the White House with the Vice President. This office alone can be imbued with the authority of the President to coordinate agencies, budgets, and strategies across the government in a way that no other position can. The Need for Leadership to Achieve Coordination and Accountability Inter-governmental and multi-disciplinary efforts are needed to adequately defend the Nation against biological threats. Centralized, effective leadership is necessary to direct and harmonize these efforts, but because this is lacking, biodefense activities are insufficiently coordinated. This problem can largely be resolved through the leadership of the Vice President and the establishment of a White House Biodefense Coordination Council. The coordination problem is exacerbated by the lack of a comprehensive biodefense strategy and a unified approach to budgeting, both vital to any strategic interagency effort. Congressional oversight efforts are hampered by the lack of these important components, insufficient awareness of the threat, and inadequate oversight among committees. These challenges could be alleviated in part through regular and in-depth intelligence briefings for Members of Congress, and implementation of joint congressional oversight agendas. The **lack of coordination** at the highest levels impacts a variety of downstream areas of critical importance, including: **intelligence** activities; full consideration of the interrelationships among animal, environmental, and human health; coordination of MCM development; **attribution of bioterrorist acts**; and environmental decontamination and remediation. These critical areas demand better integration and clear prioritization, aligned with funding and investment, in order to inform stakeholders across the biodefense spectrum and enable them to execute a strategy once it is developed. The Need for Leadership to Elevate Collaboration U.S. biodefense is not, nor should it be, a solely federal function. The impact of biological events, while felt nationally, will be addressed locally. The federal government must aid in strengthening state, local, territorial, and tribal biodefense capabilities and increase the support and access provided to them far beyond current levels. Rapid and accurate identification of a pathogen moving through humans, animals, or the environment is absolutely necessary, yet significant advances in such identification remain elusive. The federal government must implement a nationally integrated biosurveillance capability, dramatically improve environmental biosurveillance, and substantially augment collection and incorporation of animal data into human biosurveillance systems. The Nation must also demonstrate support for emergency services through improved training, enhanced personal protection, and better intelligence sharing. We must commit reasonable viii and sustained levels of financial support to state, local, territorial, and tribal health departments. The federal government must also increase support to hospitals, through tighter management of Hospital Preparedness Program funds, development of Centers for Medicare and Medicaid Services incentives, and accreditation of select hospitals as biodefense specialty centers. Public-private partnerships are fundamental

to any efforts toward development, distribution, and dispensing of MCM. We must produce a MCM response framework that is predicated on non-federal input, collaboration, and implementation, and that allows for pre-deployment of stockpiles. Finally, the federal government must lead efforts to secure vulnerable pathogen data. The Need for Leadership to Drive Innovation The innovative process of scientific discovery is inherently fraught with uncertainty. Yet biodefense efforts urgently call for a much greater focus on innovation than ever before – because biological threats are imminent, biological vulnerabilities have existed for too long, and the complexity of the threat requires equally complex solutions. Biodefense also requires sustained prioritization and funding to ensure that success realized thus far is maintained, and that opportunity and innovation are pursued. We must revolutionize the development of MCM for emerging infectious diseases, fully fund and incentivize the MCM enterprise, and remove **bureaucratic hurdles to MCM** innovation. We must develop a system for environmental detection that leverages the ingenuity of industry and meets the growing threat. We must overhaul the Select Agent Program to enable a secure system that simultaneously encourages participation by the scientific community. Finally, we must help lead the international community toward the establishment of a fully functional and agile global public health response apparatus. Conclusions We have reached a critical mass of biological crises. Myriad biological threats, vulnerabilities, and consequences have collectively and dramatically increased the risk to the Nation. They have also, we believe, garnered the attention of enough people who understand the threat is real, want to mobilize and take action, and can provide for effective national biodefense. Leadership moves America forward. A central and authoritative leader – who, by recommendation of this report, is the Vice President – can foster substantial progress in biodefense. Once installed as this leader, the Vice President (and the interagency team of experts who will work to realize the strategic vision of the Executive and Legislative Branches) can also foster substantial progress, much of it in the near term. This is especially true for coordinating federal activities, forging intersectoral partnerships, and revolutionizing the ways in which we approach this mission space. Dramatic improvements are within our reach if we follow a national blueprint for biodefense, establish leadership, and engage in major reform efforts that build on the good work that is already in place.

### Case

#### Reject 1AR theory- A] 7-6 time skew means it’s endlessly aff biased B] I don’t have a 3nr which allows for endless extrapolation C] 1AR theory is skewed to the aff because they have a 2ar judge psychology warrant which is also a reason why they shouldn’t get 2ar weighing

#### Infinite abuse claims are wrong- A] Spikes solve-you can just preempt paradigms in the 1AC B] Functional limits- 1nc is only 7 minutes long

#### Reasonability on 1AR shells – 1AR theory is very aff-biased because the 2AR gets to line-by-line every 2NR standard with new answers that never get responded to– reasonability checks 2AR sandbagging by preventing really abusive 1NCs while still giving the 2N a chance.

#### DTA on 1AR shells - They can blow up a blippy 20 second shell to 3 min of the 2AR while I have to split my time and can’t preempt 2AR spin which necessitates judge intervention and means 1AR theory is irresolvable so you shouldn’t stake the round on it.

#### Underview did not have a warrant- just asserted a short 1AR = those paradigm issues

### 1NC – AT: Hegemony Advantage [Link Turn]

Presumption- people can misunderstand what an oandemic is

#### That solves the Case – China has the vaccine production capacity to vaccinate the world.

Mallapaty 6-9 Smriti Mallapaty 6-9-2021 "China is vaccinating a staggering 20 million people a day" <https://www.nature.com/articles/d41586-021-01545-3> (She has a master of science degree in environmental technology from Imperial College London.)//Elmer

For more than a week, an average of about **20 million people** have been vaccinated against COVID-19 **every day in China**. At this rate, the nation would have fully vaccinated the entire UK population in **little more than six days**. China now accounts for more than half of the 35 million or so people around the world receiving a COVID-19 shot each day. Zoltán Kis, a chemical engineer in the Future Vaccine Manufacturing Research Hub at Imperial College London, doesn’t know of “anything **even close to those production scales**” for a vaccine. “The manufacturing efforts required in China to reach this high production throughput are tremendous,” he says. The majority of doses are of one of two vaccines, both of which have been approved for emergency use worldwide by the World Health Organization (WHO). CoronaVac — produced by Beijing-based company Sinovac — showed an efficacy of 51% against symptoms of COVID-19 in clinical trials, and much higher protection against severe disease and death. The second jab was developed in Beijing by state-owned firm Sinopharm and has demonstrated an efficacy of 79% against symptomatic disease and hospitalization. Supplying vaccines to the world China’s current vaccine production rate could potentially **make a significant dent in global demand**, says Kis; that would be “**a huge step in reducing the health-care and economic burden of the COVID-19 pandemic**”. China has already supplied 350 million doses of the two vaccines to more than 75 nations, and WHO approval should now trigger the further distribution of both vaccines to low-income countries. “China’s vaccination campaign got off to a slow start, but has rapidly picked up pace,” says Rongjun Chen, a biomaterials scientist also at the Future Vaccine Manufacturing Research Hub. As recently as mid-April, China was administering only about five million doses a day. According to an official at China’s National Health Commission, the nation aims to produce some three billion doses of COVID-19 vaccines in 2021 — and up to **five billion per year after that**. To achieve such high production rates, many things need to go according to plan across the entire production and distribution chain, from sourcing raw materials to manufacturing active ingredients, filling vials and distributing doses to vaccination centres, says Kis. “It is crucial that everything arrives at the right location at the right time.”

#### 1] Non-Unique Status Quo solves it – Biden cranked up Vaccine Diplomacy in the wake of China’s Failures – this also answers their China Rise U/Q

Wee and Lee 8-20 Sui-Lee Wee and Steven Lee Myers 8-20-2021 "As Chinese Vaccines Stumble, U.S. Finds New Opening in Asia" https://www.nytimes.com/2021/08/20/business/economy/china-vaccine-us-covid-diplomacy.html (Sui-Lee Wee is a China correspondent for The New York Times. She was part of the team that won the 2021 Pulitzer in public service for coverage of the coronavirus pandemic)//Elmer

SINGAPORE — The arrival of the **Chinese vaccines** was supposed to help stop the spread of the coronavirus in Southeast Asia. Instead, **countries** across the region are **quickly turning elsewhere** to look for shots. Residents in Thailand vaccinated with one dose of China’s Sinovac are now given the AstraZeneca shot three to four weeks later. In Indonesia, officials are administering the Moderna vaccine as a booster to health care workers who had received two doses of Sinovac. Malaysia’s health minister said the country would stop using Sinovac once its supply ran out. Even Cambodia, one of China’s strongest allies, has started using AstraZeneca as a booster for its frontline workers who had taken the Chinese vaccines. Few places benefited from China’s vaccine diplomacy as much as Southeast Asia, a region of more than 650 million that has struggled to secure doses from Western drugmakers. Several of these countries have recorded some of the fastest-growing number of cases in the world, underscoring the desperate need for inoculations. China, eager to build good will, stepped in, promising to provide more than 255 million doses, according to Bridge Consulting, a Beijing-based research company. Half a year in, however, that campaign has lost some of its luster. Officials in several countries have raised doubts about the efficacy of Chinese vaccines, especially against the more transmissible Delta variant. Indonesia, which was early to accept Chinese shots, was recently the epicenter of the virus. Others have complained about the conditions that accompanied Chinese donations or sales. The setback to China’s vaccine campaign has created a diplomatic opening for the United States when relations between the two countries are increasingly fraught, in part because of the coronavirus. China has criticized the American handling of the crisis at home and even claimed, with no evidence, that the pandemic originated in a military lab at Fort Detrick, Md., not in Wuhan, where the first cases emerged in late 2019. **As more countries turn away from Chinese shots**, **vaccine aid from the U**nited **S**tates **offers** an **opportunity to restore relations** **in a region that** American officials **have** mostly **ignored for years while China extended its influence**. The **Biden** administration has **dispatched** a crowd of **senior officials,** including Vice President Kamala Harris, who is scheduled to arrive on Sunday to visit Singapore and Vietnam. It has **also**, at last, **made its own vaccine pledges to Southeast Asia**, **emphasizing** that the **American contribution of** roughly **23 million shots** as of this week **comes with “no strings attached,”** an implicit reference to China. **Several countries** in the region have been **eager to receive** the **more effective, Western doses.**

Although they remain far outnumbered by Chinese shots, they present an attractive alternative. China’s “early head-start advantage has lost its magic already,” said Hoang Thi Ha, a researcher with the Asean Studies center of the ISEAS-Yusof Ishak Institute in Singapore. For most of the year, many developing countries in Southeast Asia did not have much of a choice when it came to vaccines. They struggled to acquire doses, many of which were being made by richer nations that have been accused of hoarding them. China sought to fill those needs. The country’s foreign minister, Wang Yi, traveled through the region in January, promising to help fight the pandemic. In April, he declared that Southeast Asia was a priority for Beijing. About a third of the 33 million doses that China has distributed free worldwide were sent to the region, according to the figures provided by Bridge Consulting. Much of Beijing’s focus has been directed at the more populous countries, such as Indonesia and the Philippines, and its longstanding allies like Cambodia and Laos. Indonesia was China’s biggest customer in the region, buying 125 million doses from Sinovac. The Philippines obtained 25 million Sinovac shots after the president, Rodrigo Duterte, said he had turned to Xi Jinping, China’s top leader, for help. Cambodia received more than 2.2 million of China’s Sinopharm doses. It has inoculated roughly 41 percent of its population, achieving the second-highest vaccination rate in the region, after Singapore. Then, signs started emerging that the Chinese vaccines were not as effective as hoped. Indonesia found that 10 percent of its health care workers had become infected with Covid-19 as of July, despite being fully vaccinated with the Sinovac shot, according to the Indonesian Hospital Association. In July, a virologist at Chulalongkorn University in Bangkok said a study of people who had received two doses of the Sinovac vaccine showed that their level of antibodies, 70 percent, was “barely efficacious” against the Alpha variant of the coronavirus, first detected in Britain, or against the Delta variant, first detected in India. The governments in both Indonesia and Thailand decided that they had to make a switch to other vaccines, like those provided by the United States, Britain and Russia. “Now that they have more choices, they can make other decisions,” said Nadège Rolland, senior fellow at the National Bureau of Asian Research in Washington. “I don’t think it’s politically motivated. I think it’s pragmatic.” Yaowares Wasuwat, a noodle seller in Thailand’s Bangsaen Chonburi Province, said that she hoped to get the AstraZeneca vaccine for her second shot after being inoculated with Sinovac, but that she would take whatever was available. “I have nothing to lose,” she said. “The economy is so bad, we are gasping for air. It’s like dying while living, so just take whatever protection we can.” China’s early moves in the region stand in marked contrast with the United States, which was **slow to provide assistance**. The calculus **has now changed** under President Biden. Both Lloyd J. Austin III, the American secretary of defense, and Antony J. Blinken, the secretary of state, had meetings with top officials in Southeast Asia in recent weeks. They **noted** the **donations of roughly 20 million shots**. After Mr. Austin visited the Philippines, Manila restored a defense agreement that had been stuck in limbo for more than a year after Mr. Duterte threatened to terminate it. The agreement, which would continue to allow American troops and equipment to be moved in and out of the Philippines, could thwart China’s goal to push the American military out of the region.

#### Pre-empting the 1AR push on Latin America Key to LIO – this card doesn’t say it so don’t give it to them – Southeast Asia is more important to check back China’s rise since it’s in China’s own backyard.

#### Biden is shipping Vaccines to Latin America – post-dates yours by a Month.

Gramer 7-9 Robbie Gramer 7-9-2021 "U.S. Blunts China's Vaccine Diplomacy in Latin America" <https://archive.is/IGWnF#selection-1029.0-1069.263> (diplomacy and national security reporter at Foreign Policy.)//Elmer

The **U**nited **S**tates is **ramping up** the delivery of **coronavirus vaccines to Latin America** in a move aimed at addressing the region’s public health crisis, but the **endeavor could** also **curb China’s efforts to wield its vaccine exports for geopolitical influence.** U.S. President Joe Biden declared the United States would **export** up to **80 million vaccines** to other countries, and in recent weeks, his administration announced a slew of deliveries to countries in Central and South America—including initial shipments of 2.5 million vaccine doses to Colombia, 2 million doses to Peru, 3 million doses to Brazil, 1 million doses to Paraguay, 1.5 million doses to Honduras, and 1.35 million doses to Mexico. The flurry of announcements **signal** the **U**nited **S**tates is **turning a corner in vaccine diplomacy in Latin America** after lagging behind both Russia and China for months in early vaccine exports to the region. “All in, when you look at what the United States has been sharing, Latin America has been by far the largest beneficiary. And this is just the beginning,” said Juan Gonzalez, senior director for the Western Hemisphere on the White House National Security Council.

#### 3] Turn – LISTEN this Aff is not Vaccine Diplomacy – Vaccine Diplomacy is hoarding production in one country then distributing it to other countries so they are reliant on a Country which establishes diplomatic ties, the Affs thesis is off-shoring Vaccine Production to other countries so they’re no longer reliant on the US since they can produce Vaccines themselves – here’s the ending of 1AC Carlman and Carl

1AC Carman and Carl 6-15 Ezequiel Carman and Joseph Carl 6-15-2021 "A U.S. vaccine diplomacy strategy for Latin America and the Caribbean" <https://theglobalamericans.org/2021/06/a-u-s-vaccine-diplomacy-strategy-for-latin-america-and-the-caribbean/> (Ezequiel Carman is an Argentine lawyer and global health and trade policy consultant. Previously, he served as a legal advisor to the Ministry of Justice of Buenos Aires, an assistant professor of international public law at the Universidad Católica Argentina, and a research assistant at the O’Neill Institute for National and Global Health Law. Joseph Carl is a graduate of Liberty University, where he studied international relations and strategic international studies. He has worked for the U.S. Department of State and the Heritage Foundation.)//re-cut by Elmer

A forward-thinking strategy To this point, the U.S. has been significantly outpaced by China and Russia when it comes to building and strengthening relations with its Latin American and Caribbean neighbors. The dynamic surrounding COVID-19 vaccine distribution is evocative of another era of recent history when the U.S. abandoned the suffering of the developing world for the sake of profit-maximizing pharmaceutical companies. With Latin America and the Caribbean being the region hardest hit in the world by the COVID-19 pandemic—much as Africa was at the height of the AIDS pandemic—the U.S. is only undermining its moral standing and regional influence by failing to more readily extend a helping hand. As the war against COVID-19 reaches a détente in the U.S., the Biden administration should make this issue a top priority. First, the U.S. needs to aggressively push its Western partners to back the IP patent waiver at the WTO in order to push forward a patent proposal that will help increase vaccine production capacity worldwide. Doing so will demonstrate to the world that Washington has the political will to defy the wishes of the powerful pharmaceutical industry and and re-establish its leadership role among the Western powers. Second, **in order to counter its** **geopolitical rivals** and restore its moral standing, the **Biden** administration **will need to be more “present” in** regional vaccine distribution, demonstrated through a vigorous campaign of **public diplomacy**. Unlike their American counterparts, Chinese and Russian diplomatic officials are always present whenever a new shipment of their vaccines enter a given country. These arrivals have frequently been met with fanfare and attention from the Latin American press—coverage that, in turn, helps to shape public opinion regarding Sino-Russian influence and elevate the political stature of the two revisionist powers among the Latin American electorate. **Adopting this strategy would help convey the message that vaccines are coming from the American people**, **rather than from faceless multinational corporations**, and help rebuild moral standing for the U.S. among Latin American and Caribbean citizenries. **Public-private partnerships** with these companies would allow the U.S. to obtain more accountability with respect to international vaccine distribution; previous agreements have proven successful in achieving similar public perceptions of transparency and accountability. Finally, **Washington needs to ramp up its vaccine donations to countries** in Latin America and the Caribbean, prioritizing the distribution of Johnson & Johnson (J&J) and AstraZeneca doses for the sake of efficiency and efficacy. (Pfizer and Moderna’s vaccines require expensive cold chain infrastructure for their transport, the capacity for which many regional providers lack.) A prompt, strong showing of U.S. leadership in each of these areas will undoubtedly help boost Washington’s moral standing and counter rival influences in Latin America and the Caribbean.

### 1NC – AT: COVID Advantage

#### Top-Level:

#### 1] A vaccine waiver greenlights counterfeit medicine – independently turns Case by increasing vaccine hesitancy.

Conrad 5-18 John Conrad 5-18-2021 "Waiving intellectual property rights is not in the best interests of patients" <https://archive.is/vsNXv#selection-5353.0-5364.0> (president and CEO of the Illinois Biotechnology Innovation Organization in Chicago.)//Elmer

The Biden's administration's support for India and South Africa's proposal before the World Trade Organization to temporarily waive anti-COVID vaccine patents to boost its supply will fuel the **development of counterfeit vaccines and weaken the already strained global supply chain**. The proposal will not increase the effective number of COVID-19 vaccines in India and other countries. The manufacturing standards to produce COVID-19 vaccines are **exceptionally complicated**; it is unlike any other manufacturing process. To ensure patient safety and efficacy, only manufacturers with the **proper facilities and training should produce the vaccine, and they are**. Allowing a temporary waiver t

hat permits compulsory licensing to allow a manufacturer to export counterfeit vaccines will **cause confusion and endanger public health**. For example, between 60,000 and 80,000 children in Niger with fatal falciparum malaria were treated with a counterfeit vaccine containing incorrect active pharmaceutical ingredients, resulting in more than **100 fatal infections.** Beyond the patients impacted, counterfeit drugs erode public confidence in health care systems and the pharmaceutical industry. Vaccine hesitancy is a rampant threat that feeds off of the distribution of misinformation. Allowing the production of vaccines from improper manufacturing facilities further opens the door for antivaccine hacks to stoke the fear fueling **vaccine hesitance**.

#### 2] Lack of key supplies

Tepper 21 James Tepper, 4/10 [James Tepper, (James M. Tepper is an American neuroscientist currently a Board of Governors Professor of Molecular and Behavioral Neuroscience and Distinguished Professor at Rutgers University and an Elected Fellow of the American Association for the Advancement of Science.)]. "Global Covid vaccine rollout threatened by shortage of vital components." Guardian, 4-1-2021, Accessed 8-8-2021. https://www.theguardian.com/world/2021/apr/10/global-covid-vaccine-rollout-threatened-by-shortage-of-vital-components // duongie

Vaccine-makers around the world face shortages of vital components including large plastic growbags, according to the head of the firm that is manufacturing a quarter of the UK’s jab supply. Stan Erck, the chief executive of Novavax – which makes the second vaccine to be grown and bottled entirely in Britain – told the Observer that the shortage of 2,000-litre bags in which the vaccine cells were grown was a significant hurdle for global supply. His warning came as bag manufacturers revealed that some pharmaceutical firms were waiting up to 12 months for the sterile single-use disposable plastic containers, which are used to make medicines of all kinds, including the Pfizer, Moderna and Novavax Covid-19 vaccines. But Erck and his British partners said they were confident they had enough suppliers to avoid disruption to the supply of Novavax. The vaccine is waiting for approval from the Medicines and Healthcare products Regulatory Agency (MHRA) but the first of 60 million doses ordered by the government are already in production in Teesside. The Fujifilm Diosynth Biotechnologies factory began growing the first cells for the Novavax vaccine in Billingham, County Durham this month and in a few weeks they will fill the bioreactor bag, ready to be transported to GlaxoSmithKline’s plant at Barnard Castle to be put into vials for distribution. “The first hurdle is showing it works and we don’t have that hurdle any more,” Erck said. But he added there were others still to overcome. “There’s the media that the cells have to grow in,” Erck said. “You grow them in these 2,000-litre bags, which are in short supply. Then you pour it out and you have to filter it, and the filters are in short supply. The little things count.” Novavax almost ran out of bags at one of its 20 factories earlier this year, but there had been no delays for the UK operation, according to Martin Meeson, global chief executive of Fujifilm Diosynth. “We started working on our part of the supply chain in summer last year,” he said. “We had to accelerate some of the investment here, but the commitment we made last summer to start manufacturing in February has been fulfilled.” Production of coronavirus vaccines is being ramped up. Production of coronavirus vaccines is being ramped up. Photograph: Christophe Archambault/AP Both Meeson and Erck said the UK’s vaccine taskforce had been helpful in sorting out supply issues so far, but other countries and other medical supplies might be affected. ABEC makes bioreactor bags at two plants in the US and two in Fermoy and Kells in Ireland, and delivered six 4,000-litre bags to the Serum Institute in India last year for its Covid vaccines. Brady Cole, vice-president of equipment solutions at ABEC, said: “We are hearing from our customer base of lead times that are pushing out to nine, 10, even 12 months to get bioreactor bags. We typically run out at 16 weeks to get a custom bioreactor bag out to a customer.” He said ABEC was still managing to fulfil orders at roughly that rate. “The bag manufacturing capacity can’t meet demand right now,” he added. “And on the component side, the tubes and the instruments and so forth that also go into the bag assembly – those lead times are also starting to get stretched as well. But the biggest problem we see is it really is just the ability to get bags in a reasonable amount of time.” ABEC expanded its factories last year and has now started making 6,000-litre bags, which are roughly the size of a minibus. Other firms including MilliporeSigma, part of German company Merck, have also been expanding their manufacturing facilities. American firm Thermo Fisher Scientific expects it will finish doubling its capacity this year. The US government has also blocked exports of bags, filters and other components so it can supply more Pfizer vaccines for Americans. Adar Poonawalla, the chief executive of the Serum Institute of India, said the restrictions were likely to cause serious bottlenecks. Novavax is hoping to avoid delays and “vaccine nationalism” by operating on four continents, with 20 facilities in nine countries. “One year ago, we had exactly zero manufacturing capacity,” Erck said. “We’re self-sufficient. The two main things we need to do are done in the UK. And in the EU we have plants in Spain and the Czech Republic and fill-and-finish in Germany and the Netherlands.” There was no need for vaccines to cross borders to fulfil contracts, he said. The Oxford/AstraZeneca vaccine was hit by a delay to a delivery of 5 million doses from India and a problem with a batch made in Britain, and the company has been dragged into a lengthy row between the UK and the EU over vaccine exports.