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### DA - Infrastructure

#### Infrastructure passes now with limited corporation support, but increased big Pharma backlash causes it to fail

Waldman 8/31 [Paul, opinion writer for the Plum Line blog. Before joining The Post, he worked at an advocacy group, edited an online magazine, taught at university and worked on political campaigns. He has authored or co-authored four books on media and politics, and his work has appeared in dozens of newspapers and magazines. He is also a senior writer at the American Prospect, “Opinion: Democrats, don’t knuckle under to corporations on the reconciliation bill”, 08-31-2021, Washington Post, https://www.washingtonpost.com/opinions/2021/08/31/democrats-dont-knuckle-under-corporations-reconciliation-bill/]//pranav

The infrastructure bill that passed the Senate and awaits action in the House was in some ways a model of bipartisanship, supported by some Republicans as well as all the chamber’s Democrats, and given a boost from traditionally Republican business groups. That wasn’t a surprise; big corporations need infrastructure to do business. If the government pays for better roads, a more resilient electrical grid and wider availability of broadband, it’ll probably help the bottom line. But what happens when the government suggests addressing Americans’ needs and asks those corporations to help pay for it? This is what happens: A torrent of political groups representing some of the country’s most influential corporations — including ExxonMobil, Pfizer, and the Walt Disney Company — is laying the groundwork for a massive lobbying blitz to stop Congress from enacting significant swaths of President Biden’s $3.5 trillion economic agenda. The emerging opposition appears to be vast, spanning drug manufacturers, big banks, tech titans, major retailers and oil-and-gas giants. In recent weeks, top Washington organizations representing these and other industries have started strategizing behind the scenes, seeking to battle back key elements in Democrats proposed overhaul to federal health care, education and safety net programs. This campaign will have lots of behind-the-scenes pressure: Together, these companies employ a group of lobbyists that are approximately equal in number to China’s People’s Liberation Army — as well as online and TV ads coming to a screen near you. So Democrats should now ask themselves: What are we doing here? As in, why did we decide to run for Congress? Because there are some moments that test your resolve, in which you have to ask what the purpose of public service is, and whether it’s more than just staying in your job for as long as possible. There are disagreements among Democrats about what should be in the final bill, and it’s almost certain that these corporations will have some success in stripping away some provisions they find threatening. There’s an increase in the corporate tax rate (though under every proposal, it would still be less than before the 2017 Republican tax cut). There’s money to boost Internal Revenue Service enforcement of existing tax laws, which the people who run corporations don’t like; an overstretched, overworked IRS that can’t manage to audit the super-rich is just how CEOs like things. Perhaps most threatening is the proposal to allow Medicare to negotiate prices for prescription drugs, as they are currently barred by law from doing. Democrats insist that change would pay for much of the trillions of dollars in new and beefed-up social programs this bill creates.

#### Big Pharma hates the plan – empirics – err neg our ev literally cites their press releases

PhRMA ’21 [The Pharmaceutical Research and Manufacturers of America (PhRMA) represents the country’s leading innovative biopharmaceutical research companies, which are devoted to discovering and developing medicines that enable patients to live longer, healthier and more productive lives. Since 2000, PhRMA member companies have invested nearly $1 trillion in the search for new treatments and cures, including an estimated $83 billion in 2019 alone, “PhRMA Statement on WTO TRIPS Intellectual Property Waiver”, 05-05-2021, https://www.phrma.org/coronavirus/phrma-statement-on-wto-trips-intellectual-property-waiver]//pranav

WASHINGTON, D.C. (May 5, 2021) – Pharmaceutical Research and Manufacturers of America (PhRMA) president and CEO Stephen J. Ubl made the following statement after the United States Trade Representative expressed support for a proposal to waive patent protections for COVID-19 medicines: “In the midst of a deadly pandemic, the Biden Administration has taken an unprecedented step that will undermine our global response to the pandemic and compromise safety. This decision will sow confusion between public and private partners, further weaken already strained supply chains and foster the proliferation of counterfeit vaccines. “This change in longstanding American policy will not save lives. It also flies in the face of President Biden’s stated policy of building up American infrastructure and creating jobs by handing over American innovations to countries looking to undermine our leadership in biomedical discovery. This decision does nothing to address the real challenges to getting more shots in arms, including last-mile distribution and limited availability of raw materials. These are the real challenges we face that this empty promise ignores. “In the past few days alone, we’ve seen more American vaccine exports, increased production targets from manufacturers, new commitments to COVAX and unprecedented aid for India during its devastating COVID-19 surge. Biopharmaceutical manufacturers are fully committed to providing global access to COVID-19 vaccines, and they are collaborating at a scale that was previously unimaginable, including more than 200 manufacturing and other partnerships to date. The biopharmaceutical industry shares the goal to get as many people vaccinated as quickly as possible, and we hope we can all re-focus on that shared objective.”

#### They lash out against infra and use COVID clout to kill it – they have public support, and a win now postpones reform indefinitely which turns case

Fuchs et al. 09/02 [Hailey Fuchsattended Yale University and was an inaugural Bradlee Fellow for The Washington Post, where she reported on national politics**,** Alice Ollstein is a health care reporter for POLITICO Pro, covering the Capitol Hill beat. Prior to joining POLITICO, she covered federal policy and politics for Talking Points Memo, Megan Wilson is a health care and influence reporter at POLITICO, “Drug industry banks on its Covid clout to halt Dems’ push on prices”, 09-02-2021, https://www.politico.com/news/2021/09/02/drug-prices-democrats-lobbying-508127]//pranav

As Democrats prepare a massive overhaul of prescription drug policy, major pharmaceutical companies are mounting a lobbying campaign against it, arguing that the effort could undermine a Covid fight likely to last far longer than originally expected. In meetings with lawmakers, lobbyists for the pharmaceutical industry have issued warnings about the reconciliation package now moving through both chambers of Congress that is set to include language allowing Medicare to negotiate the price of some drugs, which could generate billions of dollars in savings. In those conversations, K Street insiders say, lobbyists have explicitly mentioned that the fight against the coronavirus will almost certainly extend beyond the current surge of the Delta variant. And they’re arguing that now isn’t the time to hit the industry with new regulations or taxes, particularly in light of its successful efforts to swiftly develop vaccines for the virus. “For years, politicians have been saying that the federal government can interfere in the price of medicines and patients won’t suffer any harm,” said Brian Newell, a spokesperson for the Pharmaceutical Research and Manufacturers of America, or PhRMA, in a statement. “But in countries where this already happens, people experience fewer choices and less access to prescription medicines. Patients know if something sounds too good to be true, then it usually is.” The escalating warnings from the pharmaceutical industry are part of what is expected to be one of the more dramatic and expensive lobbying fights in recent memory, and a heightened repeat of the industry’s pushback to actions by former President Donald Trump to target drug prices. The proposal now under consideration in Democrats’ reconciliation package could save the federal government hundreds of billions of dollars by leveraging its ability to purchase prescription drugs, according to a report from the Congressional Budget Office. Without those funds, Democrats won’t be able to pay for the rest of the health care agenda they’ve promised to voters, including expansions of Medicare, Medicaid and Obamacare. But the plan has political power as more than a revenue raiser. Party leaders — from President Joe Biden to Senate Budget Chair Bernie Sanders (I-Vt.) — are touting it as one of the most important components of the $3.5 trillion package, with the potential to lower out-of-pocket health spending for tens if not hundreds of millions of people. Outside advocates have also zeroed in on it as the most consequential policy fight on the horizon. “This is the best chance that we have seen in a couple of decades to enact meaningful reforms to drug pricing policy in the United States that will lower the prices of prescription drugs, and it’s very clear that the drug companies are going all out to stop it,” said David Mitchell, founder of Patients for Affordable Drugs. “This is Armageddon for pharma.” Progressive Democrats and their outside allies believe they’re closer than they’ve been in decades to imposing some price controls, and worry that failure to do so this year will delay progress indefinitely given the possibility of the party losing one or more chambers of Congress in the 2022 midterms. In April, the House passed a fairly aggressive version — H.R. 3 (117) — though a handful of moderate Democrats friendly to the industry have threatened to block it when it comes back to the floor for a vote later this fall. Leadership has largely shrugged off this threat, banking on the fact that the most vulnerable frontline Democrats are vocally in favor of the policy, while most of the dissenters sit in safe blue districts. The Senate is designing its own version, outlined by Sen. Ron Wyden (D-Ore.) in June, as a middle ground between HR3 and the more narrow, bipartisan bill he and Sen. Chuck Grassley (R-Iowa) put forward last Congress. A senior Senate Democratic aide confirmed to POLITICO that the bill is nearly complete and that they’re in the process of shopping it around to undecided senators to make sure it has enough support to move forward in the 50-50 upper chamber. “It makes sense to get buy-in before releasing it rather than releasing it with fingers crossed and then tweaking it once members complain,” the aide said. But the reform push is coming at a time when the pharmaceutical industry is working hand-in-hand with government officials to combat the pandemic and enjoying a boost in public opinion as a result, even as drug costs continue to rise. The companies claim that fundamental changes to their bottom line — in addition to the Medicare provision, the reconciliation bill will likely raise corporate tax rate significantly, as high as 28 percent (a jump of 7 percentage points) — will threaten its current investments in research and development at a historically critical juncture. With the final draft of the bill expected in the coming weeks, the Pharmaceutical Research and Manufacturers of America, the lobbying arm of the pharmaceutical industry, is taking its case public. The group has recently spent at least seven figures on ads pressuring Congress not to change Medicare drug policy.

#### Big pharma always wins – independently kills aff solvency bc it causes the plan to be watered down so much that de facto monopolies can survive

Florko & Facher ‘19 [Nicholas Florko is a Stat News Washington correspondent and Lev Facher is Stat News health and life sciences writer, “How pharma, under attack from all sides, keeps winning in Washington”, 07-16-2019, Stat News, https://www.statnews.com/2019/07/16/pharma-still-winning/]//pranav

It does not seem to matter how angrily President Trump tweets, how pointedly House Speaker Nancy Pelosi lobs a critique, or how shrewdly health secretary Alex Azar drafts a regulatory change. The pharmaceutical industry is still winning in Washington. In the past month alone, drug makers and the army of lobbyists they employ pressured a Republican senator not to push forward a bill that would have limited some of their intellectual property rights, according to lobbyists and industry representatives. They managed to water down another before it was added to a legislative package aimed at lowering health care costs. Lobbyists also convinced yet another GOP lawmaker — once bombastically opposed to the industry’s patent tactics — to publicly commit to softening his own legislation on the topic, as STAT reported last month. Even off Capitol Hill, they found a way to block perhaps the Trump administration’s most substantial anti-industry accomplishment in the past two years: a rule that would have required drug companies to list their prices in television ads. To pick their way through the policy minefield, drug makers have successfully deployed dozens of lobbyists and devoted record-breaking sums to their federal advocacy efforts. But there is also a seemingly new strategy in play: industry CEOs have targeted their campaign donations this year on a pair of vulnerable Republican lawmakers — and then called on them not to upend the industry’s business model. In more than a dozen interviews by STAT with an array of industry employees, Capitol Hill staff, lobbyists, policy analysts, and advocates for lower drug prices, however, an unmistakable disconnect emerges. Even though Washington has stepped up its rhetorical attacks on the industry, and focused its policymaking efforts on reining in high drug prices, the pharmaceutical industry’s time-honored lobbying and advocacy strategies have kept both lawmakers and the Trump administration from landing any of their prescription-drug punches. “Big Pharma has replaced Big Tobacco as the most powerful brute in the ranks of Washington power brokers,” Sen. Dick Durbin (D-Ill.) said in a statement to STAT. Durbin, who recently saw the industry successfully oppose his proposal to curtail some of the industry’s patent maneuvering, added that, “Pharma’s billions allow them to continue to rip off American families and taxpayers.” The industry doesn’t get all the credit; it has also benefited from a fractured Congress and discord between President Trump’s most senior health care advisers. PhRMA, the drug industry’s largest lobbying group here, declined to comment for this article. But industry leaders have broadly argued against efforts to rein in the industry’s practices in terms of price hikes and patents, making the case that that could irreparably stifle medical innovation. The battle is far from over, and industry representatives and lobbyists are quick to hypothesize that the worst, for them, is yet to come. They point to several ongoing legislative initiatives, including in the Senate Finance Committee, that could take more concerted direct aim at their pricing strategies in Medicare. They’re waiting, too, to see if House Democrats can cut a drug pricing deal with the White House to empower Medicare to negotiate at least some drug prices. Another pending regulation, loathed by drug makers, might tie their pricing decisions in Medicare to an index of international prices. They’ve also bemoaned the Trump administration’s decision last week to abandon a policy change that would have ended drug rebates — which, the pharmaceutical industry has said, could have given drug makers more space to lower their prices voluntarily. “We’re getting killed!” one pharma lobbyist told STAT. Of course, the Trump administration’s supposedly devastating decision to abandon that proposal simply maintains the status quo. “Big Pharma has replaced Big Tobacco as the most powerful brute in the ranks of Washington power brokers.” n Valentine’s Day, Sen. Thom Tillis (R-N.C.) enjoyed a showering of love that is familiar in Washington: a flood of campaign contributions, many at the federal limit of $2,800 for a candidate or $5,000 for an affiliated political committee. One donation came from Pfizer’s CEO, Albert Bourla, who donated $5,000 to Tillis and another $10,000 to Sen. John Cornyn (R-Texas) and associated campaign committees. Another came from Kenneth Frazier, the top executive at Merck. The Tillis campaign committee eventually cashed checks from CEOs and other high-ranking executives at those companies as well as Amgen, Eli Lilly, Sanofi, and Bristol Myers-Squibb, plus two high-ranking officials at the advocacy group PhRMA. Six lobbyists at one firm that works with PhRMA, BGR, also combined to contribute $100,000 to a bevy of Republican lawmakers and the party’s campaign arms. Tillis raised an additional $64,500 from drug industry political action committees in the past quarter, according to disclosures released on Monday. A Pfizer spokeswoman declined to comment about Bourla’s contributions, and representatives for the other companies did not respond to STAT’s request for comment. Tills was one of few individual lawmakers — in many cases, the only one — to whom the executives had written personal checks during the current election cycle. While drug industry CEOs frequently contribute to political committees for congressional leadership, the breadth of executives who donated Tillis specifically is notable, particularly considering his outspoken role on pharmaceutical industry issues. While lobbyists pushed back on the notion that campaign contributions directly influence votes, the donations targeted so specifically to a particular candidate could be seen as a prime example of Washington’s system for rewarding loyalty and how industries protect their interests. The same PhRMA PAC that donated to Tillis has given generously in recent years: nearly $200,000 in the 2018 campaign cycle, roughly 58% of which was targeted toward Republicans. Drug industry PACs donated $10.3 million in total in that cycle, according to the Center for Responsive Politics. The figure two years before was even higher: a total of $12.2 million from industry-aligned PACs alone. It is no accident that the pharmaceutical industry has maintained its reputation among the nation’s most powerful lobbies, said Sheila Krumholz, the executive director of the Center for Responsive Politics, an organization that tracks political influence. “Their access and influence goes beyond this Congress or even the administration,” Krumholz said in an interview, adding that she “was struggling to think of evidence” it had waned. Pharma has a reputation here for winning on policy — often thanks to the lawmakers who are among the biggest recipients of the millions that drug corporations, employees, and the industry political arms donate each year. Even as the rhetoric has escalated, the industry has quietly worked to insulate itself from any major legislative changes. Take, for example, a recent about-face from Cornyn, the Texas Republican who took in some campaign cash alongside Tillis. As recently as February, Cornyn seemed to be positioning himself as a rare Republican figurehead for anti-pharma congressional wrath. At a widely publicized hearing before the Senate Finance Committee, he went head-to-head with AbbVie CEO Richard Gonzalez, pressing him to explain why the company had filed more than 100 patents on its blockbuster arthritis drug Humira. Cornyn introduced legislation soon after the skirmish to crack down on patent “thicketing,” a term for a drug company tactic to accumulate tens, if not hundreds, of patents to shield a drug from potential generic competition. Pharma sprung into action. They recruited congressional allies, including Tillis, to pressure Cornyn to significantly rework the bill, and they succeeded. The version of the bill that eventually cleared the Senate Judiciary Committee was stripped of language that would have empowered the Federal Trade Commission to go after patent thicketing. Instead, the bill limited how many patents a drug maker could assert in a patent lawsuit. The new version of the bill lost “a lot of teeth” and “solves a narrower problem in a narrow way,” advocates told STAT when the change was first introduced. It is far from the only example of the industry’s aggressive interventions to water down legislation. “In lots of ways they’re like the [National Rifle Association], because they have an incredible power to squash out any negative opinion, nor to feel any of the ill effects of those things,” said Pallavi Damani Kumar, an American University crisis communications professor who once worked in media relations for drug manufacturers. “It just speaks to how incredibly savvy they are.” Pharmaceutical industry lobbyists also successfully fought to keep another anti-drug industry patent proposal from Sen. Bill Cassidy (R-La.) and Dick Durbin (D-Ill.) out of a bipartisan drug pricing package moving through the Senate HELP Committee. The legislation would have allowed the FDA to approve cheaper versions of drugs, even when the more expensive product was protected by certain patents. Cassidy’s proposal never even made it into the HELP package. As the lobbyist who bemoaned the withdrawal of the rebate rule put it, Cassidy “simmered down” in the face of industry pressure. In recent weeks, the industry had targeted Cassidy in particular, in recent weeks, for fear he would break with many of his GOP colleagues to support a cap on some price hikes for drugs purchased under Medicare, a proposal so far pushed only by Democrats. “Sen. Cassidy doesn’t care what lobbyists think — he is going to do what’s best for patients,” said Ty Bofferding, a Cassidy spokesman. “Sen. Cassidy fought for the committee to include the REMEDY Act in the package, despite strong opposition from the pharmaceutical industry.” The committee eventually included half the bill’s provisions, he added, as well as four other pieces of legislation meant to prevent the industry from taking advantage of the patent system. The drug industry also notched a win by watering down another proposal in that package from Sen. Susan Collins (R-Maine) that would have blocked drug makers from suing over patents they didn’t disclose to the FDA. The version of the bill that actually made it into the package doesn’t block drug makers from suing, but instead directs the FDA to create a public list of companies that fail to disclose their patents. “This change is a big win for drug makers,” Michael Carrier, a Rutgers University professor and expert on patent gaming, told STAT. “Shaming is something drug makers don’t seem worried about.” Matthew Lane, the executive director of the Coalition Against Patent Abuse, likewise added that the altered bill “doesn’t seem to be doing much anymore.” Not all of the pharma-endorsed changes, however, are self-serving. Patent experts and federal regulators too had raised concerns with some of the bill being proposed. Cornyn’s patent bill was particularly controversial. “These provisions encourage ‘fishing expeditions’ by zealous bureaucrats, politically motivated by the popularity of efforts to reduce drug prices and garner the political benefits of being seen to be pursuing these ends,” Kevin Noonan, a patent lawyer at McDonnell Boehnen Hulbert & Berghoff wrote in a recent blog post, referring to the original Cornyn bill. Drug-pricing advocates said lobbyists have even managed to convince lawmakers to introduce some legislation they say has explicitly favored the drug industry, including intellectual property-focused legislation that would allow drug makers to patent human genes. That particular bill would “undo the bipartisan effort underway to fix pharma’s exploitation of the patent system,” said the Coalition Against Patent Abuse. And they were far from the only group raising concerns. The American Civil Liberties Union and more than 150 other groups wrote to lawmakers last month opposing the bill. Pharma’s list of policy victories goes on: Drug companies and allied patient groups forced the Trump administration to back off a proposal to make relatively minor changes to Medicare’s so-called protected classes policy. Currently, Medicare is required to cover all drugs for certain conditions, including depression and HIV. The Trump administration proposed in November that private Medicare plans should be able to remove certain drugs in those classes from their formularies, if the drugs were just new formulations of a cheaper, older version of the same drug, or when a drug spiked in price. But drug industry opposition helped convince the administration to spike that effort. A week ago, the industry struck its biggest blow yet. Three of the country’s largest pharmaceutical companies —Amgen, Eli Lilly, and Merck — prevailed in a lawsuit to strike down a Trump administration requirement that they disclose list prices in television advertisements. The lack of congressional action — despite the Democratic enthusiasm and bipartisan appetite — is still further evidence of industry’s ability to stave off defeat. As the dozens of Democrats running for president ramp up their anti-pharma rhetoric, both Trump and progressives have begun to fret that Washington’s efforts have proven to be all bark and no bite. With two weeks remaining before the August recess and an escalating 2020 campaign, some advocates fear that the window for bold action is closing quickly. “It’s appalling that we are six months into this Congress and we haven’t seen meaningful legislation passed on American’s number one issue for this congress,” said Peter Maybarduk, who leads drug-pricing initiatives for the advocacy group Public Citizen. “Congress needs to get its act together.”

#### Infra’s k2 stopping existential climate change – warming is incremental and every change in temperature is vital

Higgins 8/16 [Trevor, Senior Director, Domestic Climate and Energy, “Budget Reconciliation Is the Key to Stopping Climate Change”, 08-16-2021, https://www.americanprogress.org/issues/green/news/2021/08/16/502681/budget-reconciliation-key-stopping-climate-change/]//pranav

The United States is suffering acutely from the chaotic changes in climate that scientists now directly attribute to the burning of fossil fuels and other human activity. The drought, fires, extreme heat, and floods that have already killed hundreds this summer across the continent and around the world are a tragedy—and a warning of worsening instability yet to come. However, this week, the Senate initiated an extraordinary legislative response that would set the world on a different path. Enacting the full scope of President Joe Biden’s Build Back Better agenda would put the American economy to work leading a global transition to clean energy and stabilizing the climate. A look at what’s coming next through the budget reconciliation process reveals a ray of hope that is easy to miss amid the fitful negotiations of recent months: At long last, Congress is on the verge of major legislation that would build a more equitable, just, and inclusive clean energy economy. This is our shot to stop climate change. Building a clean energy future must start now Until the global economy stops polluting the air and instead starts to draw down the emissions of years past, the world will continue to heat up, blundering past perilous tipping points that threaten irreversible and catastrophic consequences. Stemming the extent of warming at 1.5 degrees Celsius rather 2 degrees or worse will reduce the risk of crossing such tipping points or otherwise exceeding the adaptive capacity of human society. Every degree matters. Stabilizing global warming at 1.5 degrees Celsius starts with cutting annual greenhouse gas emissions in the United States to half of peak levels by 2030. This isn’t about temporary offsets or incremental gains in efficiency—it’s about the rapid adoption of scalable solutions that will work throughout the world to eliminate global net emissions by 2050 and sustain net-negative emissions thereafter. Building this better future will tackle climate change, deliver on environmental justice, and create good jobs. It will give us a shot to stop the planet from continuously warming. It will alleviate the concentrated burdens of fossil fuel pollution, which are concentrated in systemically disadvantaged, often majority Black and brown communities. It will empower American workers to compete in the global clean energy economy of the 21st century. There is no time to lose in the work of building a clean energy future.

### DA – Counterfeits

#### The counterfeit medicine market is attracting new suppliers, but new technologies are evolving to crack down on counterfeits – it’s prevalence is tentative

Hallie B Forcinio 21 [Hallie Forcinio is BioPharm International's packaging editor, editorhal@sbcglobal.net . PharmTech, 2-2-2021, "Countering Counterfeiters and Diverters," https://www.pharmtech.com/view/countering-counterfeiters-and-diverters]//anop

The never-ending battle against counterfeit pharmaceutical products has become fiercer with the pandemic. With product protection a constant concern, the market for anticounterfeiting technologies is strong, regulatory efforts are ongoing, and authentication and anticounterfeiting technologies are evolving. As a result, the anticounterfeiting packaging market is projected to grow at a 7.8% compound annual growth rate to $189.9 billion in 2026 (1). A major driver for this growth is the expanding use of e-commerce platforms, which make it easy to set up shop to sell fraudulent products and are largely unregulated. A study by Local Circles noted that approximately 20% of all products sold on e-commerce sites are counterfeit (1). Anticounterfeiting laws and regulations, such as the European Union’s Falsified Medicine Directive and the US’s Drug Supply Chain Security Act (DSCSA), safeguard prescription drugs available from pharmacies. “However, pharmaceutical manufacturers should be aware that these measures alone will not guarantee a product’s integrity and authenticity,” says Gene Dul, president of Schreiner MediPharm US. He says, “Only additional counterfeit-proof authenticity features can provide a comprehensive approach against fraud, misuse, and tampering.” Unfortunately, the coronavirus pandemic has increased the opportunities for counterfeiting. “In a survey issued by IDC in June 2020, 70% of companies agreed that their supply chain is ‘very vulnerable’ to suffering more problems if the COVID-19 crisis lasted more than a couple of months longer, and 75% of companies agreed that the COVID-19 pandemic has ‘greatly increased/will greatly increase’ problems with diversion, theft, and counterfeiting of critical products such as test kits, vaccines, and antivirals,” reports Aimee Genzler, vice-president, Corporate & Brand Communications at TraceLink, the study sponsor (2). In fact, in anticipation of a spike in counterfeiting, the US Immigration and Customs Enforcement Homeland Security Investigations (HSI) has launched Operation Stolen Promise 2, to halt the production, distribution, and sale of illicit COVID-19 treatments and vaccines. HSI reported that its agents have seized illicit proceeds and goods, made arrests, and shut down fraudulent websites (3), including the seizure of two domain names in December 2020 (4). The proliferation of counterfeit goods stems in part from the shift to e-commerce, which has been accelerated by stay-at-home orders and advisories and reduced access to physical retail pharmacies. “The emergence of on-line pharmacies poses a significant threat of escalation in counterfeit pharmaceuticals and underscores the urgent need for on-dose countermeasures,” reports Peter Wong, chief operating officer at TruTag Technologies, which recently entered a partnership with Colorcon to provide advanced security coatings for on-dose use. “Counterfeiters are opportunistic,” explains John Pitts, key account manager for Antares Vision, noting, “COVID-19 provided the ‘perfect storm’ for the counterfeiters: panic in consumers; product shortages from the brand name ethical providers; desire and, in many cases, requirement to purchase via e-commerce; and lack of and often conflicting information from the media and authorities.” Joe Farrell, life sciences expert at Loftware, concurs, “It seems clear that whenever there are high-value pharmaceutical products, there will be people trying to profit illegally. The fact that the COVID-19 vaccines need to be shipped in stringent cold storage containers with radio frequency identification (RFID) temperature sensors along with specialized transportation methods will make it more difficult for counterfeiters to enter the supply chain, but not impossible.” With COVID-19 vaccines now rolling out in limited quantities, demand will outstrip supply in the coming months. “This will create a ripe environment for unscrupulous parties to offer fake product,” says Wong, noting, “Distribution of the COVID-19 vaccine is designed to go to many more points of dispensing than for a normal pharmaceutical drug, as governments seek to deliver vaccinations broadly and as quickly as possible while maintaining demanding cold-chain requirements. These logistical requirements will create higher than normal transition points in the overall supply chain, which in turn create increase opportunities for diversion, adulteration, and fake product to reach the patient.” Counterfeiting countermeasures The pharmaceutical industry has been on the leading edge of anticounterfeiting and brand protection efforts for many years. “Anticounterfeit solutions are usually tailor-made according to the needs of the brand owner,” says Paavo Sillanpää, senior business manager, Pharma at UPM Raflatac. A diverse strategy considering threat scenario and product is needed. “Most pharma companies have a multi-layered approach,” notes Farrell. The most common physical solutions are tamper-evident labels and packaging materials, designs that prevent the placement of a counterfeit product into the original packaging, serialization, and overt and covert authentication methods such as holograms, invisible markers, and taggants. “Ideally, multi-level security concepts should be used that are individually tailored to a specific use case, combining analog and digital features, which can be verified by different stakeholders within the supply chain,” says Dul. There is heightened interest in tools and technologies that go beyond the package to protect patients, such as on-dose solutions. In addition, says Wong, “the industry is increasing its public awareness campaigns of the problem of fake and unsafe medicine in an effort to educate consumers about the dangers of unauthentic drug products.” As a result, Pitts predicts an increased focus on consumer engagement. He notes, “Enabling the end consumer and the dispenser to authenticate their products is powerful on so many levels. It makes counterfeiting more difficult, provides vital and real-time data to the consumer, and can offer the manufacturer feedback.” Labeling technologies Labeling plays an important role in the fight against counterfeit products. As the passport for moving products through the global supply chain, it contains any track-and-trace or authentication information. “In the label business, we have seen an increased interest in various tamper-evident (TE) solutions and holograms,” reports Sillanpää. One new product from UPM Raflatac combines heat resistance, advanced adhesion, and conformability. Designed primarily for the European market where cartoned blister packaging is common, the heat-resistant TE label won’t shrink in heat tunnels used to produce multipacks. UPM Raflatac has also introduced sustainable TE labeling. It’s produced from Forest Film, which Sillanpää says is “the world’s first wood-based plastic labeling material.” Benefits include performance equivalent to traditional plastic film label materials and the ability to help pharmaceutical brands achieve sustainability goals. Demand for more sustainable products extends to RFID and near-field communication (NFC) tags. Eco-friendly RFID and NFC tags from Identiv feature paper-based transponder inlays that reduce polyethylene terephthalate content, resulting in a repulpable substrate (5). RFID technology is integral to the Cap-Lock plus RFID cap adapter and label combination from Schreiner MediPharm. The label-integrated RFID inlay provides digital proof of integrity and first-opening evidence for syringes as well as product authentication. Dul explains, “The adapter is placed on top of the syringe’s primary closure and interlinked with it to equalize the diameter differences of the syringe body and closure. The label wraps around the syringe body and cap adapter and—once opened—provides irreversible tamper evidence due to an integrated perforation.” Printing and tagging technologies Magnetic ink is another potential anticounterfeiting tool. Technology from Inspectron relies on a proprietary reader, track-and-trace software, and magnetic ink, long used on checks to facilitate automated sorting. The magnetic ink is used to print a barcode, which is detectable even if it’s not visible to the eye. That means the code, which may be serialized, can be hidden on the inside of a carton or under a label and still be read. The current reader works from a distance of up to 2 mm, but units with longer read ranges are under development. “However, longer read ranges require bigger codes,” notes Nathalie Muller, head of Innovation at Inspectron. Although the first commercial application of the technology inkjets the codes on paper to enable identification of diverted product, Muller says, the permanent magnetic codes could be printed on plastic or glass containers and potentially support tasks like vial tracking. Also under development is a hybrid one- and two-dimensional barcode that would hold more data. On-dose technology enables authentication at the product level. Edible microparticles coupled with the Smart Medicine solution from TruTag Technologies confirms product authenticity and can help boost patient adherence and outcomes. A new Pharma Mobile App allows patients to scan each dose with their smartphone, authenticate it, and record that it was taken. If desired, the record of the dose can be shared with healthcare providers. The system also can link to other product information. In April 2020, FDA accepted molecular tagging technology from Applied DNA Sciences into its Emerging Technology Program (6). The company says that its technology is a multilayered platform that gives both the dose and the packaging an immutable identity for authentication. On Nov. 30, 2020, AlpVision launched its Alpvision COVID-19 Initiative to protect COVID-19-related therapeutics and vaccines against counterfeiting. Under the program, AlpVision provides pharmaceutical companies and their suppliers with the tools to deploy its Cryptoglyph digital security feature on their packaging. Invisible to the human eye, the Cryptoglyph feature can be authenticated via smartphone. Adopting the technology does not change the production process or involve additional consumables. In addition, the smartphone applications connect to AlpVision’s Brand Monitoring System, a centralized server platform that enables real-time monitoring of product authentication activities. AlpVision plans to provide this service for free until the World Health Organization declares the pandemic has ended (7). Software tools Physical technologies are common anticounterfeiting tools, but counterfeit and diversion prevention also relies on software. Farrell reports, “At Loftware, we are being asked for help in getting the correct information onto the label. It’s important to have an enterprise labeling solution that integrates with a company’s sources of data to make sure the correct approved information is automatically applied to the labels. This includes languages, barcodes, regulatory symbology, and regional product information. You also need a labeling solution that can aid with approving, managing, and promoting electronic information for use [data] to help speed the process for a faster time to market for these critical products.” Although not specifically an anticounterfeiting product, Loftware Spectrum software integrates with serialization solutions and ensures labeling is consistent, accurate, and contains the right serialized data and barcodes. “The use of global templates in an enterprise solution also helps our life sciences customers to globally standardize on the look of their supply chain labels to help identify counterfeited products,” he explains. The scalable Track My Way platform from Antares Vision offers single-unit, batch, and custom traceability; provides direct consumer engagement; and can extend from raw materials tracking to end-of-life package disposal/recycling. Geolocation functionality can track the harvesting of the raw materials, packaging locations, the movement of products through the supply chain, and the point-of-sale location. In April 2020, TraceLink released an anticounterfeiting tool called Smart Distribution Tracking. By integrating the Internet of Things with product serialization, Smart Distribution Tracking provides full track-and-trace visibility for the secure delivery of vaccines, test kits, and high-value products. Another software tool, the Summit Authentication Platform from Microtrace Solutions, is a customized system consisting of a self-authenticating, encrypted barcode; a Spectral Taggant; and a handheld detector plus a smartphone mobile app. “Our Spectral Taggant is a chemistry formulated into an ink that, when printed, is a highly secure ‘signature’ or ‘fingerprint,’” explains Brian Brogger, president at Microtrace Solutions. This signature can be authenticated instantly via the handheld spectrometer or smartphone without an Internet connection. For vaccines and therapeutics, the barcode and Spectral Taggant can be applied to security labels. The mobile app is then able to verify that the barcode was genuinely issued and the Spectral Taggant verifies that the barcode has not been copied. The system also can provide real-time reporting and analysis. The latest release of the Systech Brand Protection Suite from Systech International, the software solutions division of Markem-Imaje, delivers a fully integrated solution to combat counterfeiters, identifies product diversion, meets regulatory compliance, and provides analytics. The centerpiece of the suite, the company’s non-additive e-Fingerprint technology, turns any existing barcode into a unique, digital identifier to provide end-to-end visibility and actionable information as a product moves through the supply chain. New functions include the ability to push unique responses and content to users and smartphone authentication of e-Fingerprinted products. Responses can be tailored to the user, location, time, and safety of the product, and include photos or other information. A new analytics platform, Systech Insight, offers a series of Information on Demand dashboards and an analytics data pool (8).

#### **IP protection prevents and quickly stops spread counterfeit medicines – multiple warrants**

FIFARMA 21, [FIFARMA is the Latin American Federation of the Pharmaceutical Industry created in 1962. We represent 16 research-based biopharmaceutical companies and 11 local associations dedicated to discovering and developing innovative, quality and safe health products and services that improve the lives of patients in Latin America and the Caribbean and advocate for patient-centric, sustainable health systems characterized by high regulatory standards and ethical principles. (Apr 22, 2021), "This is how we fight counterfeit medicines with Intellectual Property," https://fifarma.org/en/this-is-how-we-fight-counterfeit-medicines-with-intellectual-property/]//anop

In addition to functioning as a tool to maintain constant innovation in the industry, IP helps reducing counterfeit medicines because medicines have better technologies and ingredients are more difficult to copy. This means that, through market incentives, the industry manages to have high quality infrastructure, new technology and trained personnel, to create specialized and specific medicines and therapies, which is why they are difficult to replicate. On the other hand, political will functions as another important axis, as it must prosecute those who are making counterfeit medicines. This is achieved through a constant conversation between industry and governments. Therefore, it will be absolutely clear how to identify the authenticity of medicines. In short, IP allows quality standards to be clearer and stricter, and regulators to have greater knowledge and traceability of each product that enters the market. Through IP, you can establish a record of all products globally, which makes it easier to find possible counterfeit medicines. Consequently, the best way to fight counterfeit medicines is through accessing the best quality medicines and for this to happen, an ecosystem between countries, regulators and industry is needed. This ecosystem shall take into account the structural deficiencies of each country and addresses them in a holistic manner, to provide the best quality medicines. In the end, with the Intellectual Property associated with the creation of the product, there are also associated standards of transparency and detailed information that every regulatory agency can access. Moreover, the value chains will receive all this information in order to be aware of the appearance of products that are not registered with the standards of a product protected by IP. Also, IP helps to combat counterfeit medicines internationally, since there are laws that cover all member countries of the United Nations and punish more severely those who commit this crime. Likewise, these laws provide countries with the necessary mechanisms to take concrete action once a counterfeit medicine is discovered. This, of course, must go hand in hand with the political will of each country, because only with collaboration between different actors will it be possible to prosecute the entire chain of counterfeit medicines. Plus, IP owners can receive electronic notifications worldwide more quickly and can take direct communication actions. In a nutshell, IP allows the industry to show the public almost immediately that there is a counterfeit medicine in a country or that a website is selling counterfeit medicines. This is because legally infringing a product protected by IP allows action to be taken to prosecute the counterfeit products. This is especially important for those consumers or small organizations that do not have access to information like a hospital or public health center has. However, it is necessary to involve other actors of the health system so that information about counterfeit medicines reaches remote regions or places, which do not have an internet connection. On the other hand, thanks to IP, the industry is creating specialized safety technology in order for each country to easily identify a drug that comes with a brand but does not belong to that brand. The industry has also used mobile laboratories to test samples of suspected medicines and report them quickly to the value chain. Thus, technology is becoming an important element in fighting this problem. Counterfeit medicines have a wide range of negative effects for different actors and especially for the people who fall victim of them. However, more and more governments and industries are creating concrete actions to pursue the entire chain of counterfeiters, as this is the only way to eradicate the problem all together. The tools to combat counterfeiting exist, the important thing is that actors know how to use them for the benefit of the greatest number of people in the world.

#### Pharmaceutical counterfeiting is increasingly used to support terrorism – used for funding and mediums of attacks

née Lybecker 18, Kristina M.L. Acri [Kristina M. L. Acri née Lybecker is an Associate Professor of Economics in the Department of Economics and Business at Colorado College in Colorado Springs, CO. (February 2018), "Pharmaceutical Counterfeiting: Endangering Public Health, Society and the Economy" Fraser Institute, https://www.fraserinstitute.org/sites/default/files/pharmaceutical-counterfeiting-endangering-public-health-society-and-the-economy.pdf]//anop

Pharmaceutical counterfeiting is linked to numerous forms of organized crime: drug trafficking, money laundering, and terrorism (Lybecker, 2016; Pfizer, 2007; Redpath, 2012; Criminal Intelligence Service Canada, 2006; UNODC, 2017). As reported by Redpath (2012: 7), “not only have groups such as the Russian mafia, Colombian drug cartels, Chinese triads and Mexican drug gangs all become heavily involved in producing and trafficking counterfeit drugs over the past decade, but mounting evidence also points to the direct involvement of Hezbollah and al Qaeda.” *Given the profitability of the endeavor, it is not surprising that pharmaceutical counterfeiting is increasingly a source of funding for terrorist groups* (Lybecker, 2016; Pfizer, 2007; Redpath, 2012). Moreover, by their very nature, organized criminal operations are well suited to the intricacies of pharmaceutical counterfeiting. “Criminal organisations have the advantage of huge resources, international networks and skilled labour. They can move with a speed that often confounds the authorities. Counterfeit versions of the antiviral drug Tamiflu were available on fake internet pharmacy sites, like the one posing as the ‘Canadian Pharmacy,’ within weeks of the [World Health Organization] declaration of H1N1 as a pandemic” (Redpath 2012: 8). While anecdotal evidence of the link is quite plentiful, the clandestine nature of the business as well as the secrecy maintained by law enforcement make it virtually impossible to either completely understand or measure the extent of the trade. A 2014 INTERPOL study provides perspective on pharmaceutical crime and organized criminal groups. INTERPOL’s Medical Product Counterfeiting and Pharmaceutical Crime Sub-Directorate has prepared an analysis of available data, dating from 2008 to 2014, to establish the extent of organized criminal groups (OCGs) activity in the realm of pharmaceutical crime (INTERPOL, 2014).5 According to the report, a recent Europol threat assessment concludes that there are “a wide variety of actors, operating within the pharmaceutical crime arena, encompassing both OCGs and individual criminals, both of which are involved at any point in the supply chain.” The report points to the involvement of both traditionally structured hierarchical crime groups in addition to highly organized, yet generally informal, networks of illicit online pharmacies and finally, small groups of three to ten members. The INTERPOL study, as well as those from other agencies, provides some perspective on the involvement of organized criminal groups in Canada. Numerous investigations in the US, Canada, and Sweden have linked the Hell’s Angels to the production and distribution of counterfeit medicines, in particular ED medications and steroids (INTERPOL, 2014). • Fake oxycontin pills containing fentanyl were responsible for more than 50 deaths in Alberta in 2015. The counterfeit pills are also responsible for three deaths in Saskatchewan (Partnership for Safe Medicines, 2015b). • In November 2013, Canadian authorities began an organized crime investigation named “Project Forseti,” targeting the Hells Angels and the Fallen Saints (Customs Today Report, 2015). In January of 2015, police in Saskatchewan and Alberta, Canada seized guns and drugs, including significant amounts of counterfeit oxycontin. A United Nations Interregional Crime and Justice Research Institute (UNICRI) study suggests that criminal networks use routes and methods to transport counterfeit medicines that are similar to those used to traffic in drugs, firearms, and people (UNICRI, 2012). Evidence suggests that organized criminal gangs involved in the production of synthetic drugs are able to easily access the materials and expertise needed to also produce counterfeit medicines. In both Europe and Southeast Asia, authorities cite evidence of “criminal manufacturers of amphetamine-type substances [that] have been involved in the production and distribution of counterfeit medicines” (INTERPOL, 2014).

#### Terrorism escalates to nuclear war

Ayson 10 (Robert Ayson. Robert Ayson is Professor of Strategic Studies at Victoria University of Wellington, New Zealand, where he works closely with the Centre for Strategic Studies. “After a Terrorist Nuclear Attack: Envisaging Catalytic Effects”. 6-21-2010. Studies in Conflict and Terrorism. <https://www.tandfonline.com/doi/abs/10.1080/1057610X.2010.483756?journalCode=uter20>) **//TruLe**

But these two nuclear worlds—a non-state actor nuclear attack and a catastrophic interstate nuclear exchange—are not necessarily separable. It is just possible that some sort of terrorist attack, and especially an act of nuclear terrorism, could precipitate a chain of events leading to a massive exchange of nuclear weapons between two or more of the states that possess them. In this context, today’s and tomorrow’s terrorist groups might assume the place allotted during the early Cold War years to new state possessors of small nuclear arsenals who were seen as raising the risks of a catalytic nuclear war between the superpowers started by third parties. These risks were considered in the late 1950s and early 1960s as concerns grew about nuclear proliferation, the so-called n+1 problem. It may require a considerable amount of imagination to depict an especially plausible situation where an act of nuclear terrorism could lead to such a massive inter-state nuclear war. For example, in the event of a terrorist nuclear attack on the United States, it might well be wondered just how Russia and/or China could plausibly be brought into the picture, not least because they seem unlikely to be fingered as the most obvious state sponsors or encouragers of terrorist groups. They would seem far too responsible to be involved in supporting that sort of terrorist behavior that could just as easily threaten them as well. Some possibilities, however remote, do suggest themselves. For example, how might the United States react if it was thought or discovered that the fissile material used in the act of nuclear terrorism had come from Russian stocks,40 and if for some reason Moscow denied any responsibility for nuclear laxity? The correct attribution of that nuclear material to a particular country might not be a case of science fiction given the observation by Michael May et al. that while the debris resulting from a nuclear explosion would be “spread over a wide area in tiny fragments, its radioactivity makes it detectable, identifiable and collectable, and a wealth of information can be obtained from its analysis: the efficiency of the explosion, the materials used and, most important … some indication of where the nuclear material came from.”41 Alternatively, if the act of nuclear terrorism came as a complete surprise, and American officials refused to believe that a terrorist group was fully responsible (or responsible at all) suspicion would shift immediately to state possessors. Ruling out Western ally countries like the United Kingdom and France, and probably Israel and India as well, authorities in Washington would be left with a very short list consisting of North Korea, perhaps Iran if its program continues, and possibly Pakistan. But at what stage would Russia and China be definitely ruled out in this high stakes game of nuclear Cluedo? In particular, if the act of nuclear terrorism occurred against a backdrop of existing tension in Washington’s relations with Russia and/or China, and at a time when threats had already been traded between these major powers, would officials and political leaders not be tempted to assume the worst? Of course, the chances of this occurring would only seem to increase if the United States was already involved in some sort of limited armed conflict with Russia and/or China, or if they were confronting each other from a distance in a proxy war, as unlikely as these developments may seem at the present time. The reverse might well apply too: should a nuclear terrorist attack occur in Russia or China during a period of heightened tension or even limited conflict with the United States, could Moscow and Beijing resist the pressures that might rise domestically to consider the United States as a possible perpetrator or encourager of the attack? Washington’s early response to a terrorist nuclear attack on its own soil might also raise the possibility of an unwanted (and nuclear aided) confrontation with Russia and/or China. For example, in the noise and confusion during the immediate aftermath of the terrorist nuclear attack, the U.S. president might be expected to place the country’s armed forces, including its nuclear arsenal, on a higher stage of alert. In such a tense environment, when careful planning runs up against the friction of reality, it is just possible that Moscow and/or China might mistakenly read this as a sign of U.S. intentions to use force (and possibly nuclear force) against them. In that situation, the temptations to preempt such actions might grow, although it must be admitted that any preemption would probably still meet with a devastating response. As part of its initial response to the act of nuclear terrorism (as discussed earlier) Washington might decide to order a significant conventional (or nuclear) retaliatory or disarming attack against the leadership of the terrorist group and/or states seen to support that group. Depending on the identity and especially the location of these targets, Russia and/or China might interpret such action as being far too close for their comfort, and potentially as an infringement on their spheres of influence and even on their sovereignty. One far-fetched but perhaps not impossible scenario might stem from a judgment in Washington that some of the main aiders and abetters of the terrorist action resided somewhere such as Chechnya, perhaps in connection with what Allison claims is the “Chechen insurgents’ … long-standing interest in all things nuclear.”42 American pressure on that part of the world would almost certainly raise alarms in Moscow that might require a degree of advanced consultation from Washington that the latter found itself unable or unwilling to provide. There is also the question of how other nuclear-armed states respond to the act of nuclear terrorism on another member of that special club. It could reasonably be expected that following a nuclear terrorist attack on the United States, bothRussia and China would extend immediate sympathy and support to Washington and would work alongside the United States in the Security Council. But there is just a chance, albeit a slim one, where the support of Russia and/or China is less automatic in some cases than in others. For example, what would happen if the United States wished to discuss its right to retaliate against groups based in their territory? If, for some reason, Washington found the responses of Russia and China deeply underwhelming, (neither “for us or against us”) might it also suspect that they secretly were in cahoots with the group, increasing (again perhaps ever so slightly) the chances of a major exchange. If the terrorist group had some connections to groups in Russia and China, or existed in areas of the world over which Russia and China held sway, and if Washington felt that Moscow or Beijing were placing a curiously modest level of pressure on them, what conclusions might it then draw about their culpability.

### Framework

#### The role of the ballot is to evaluate the desirability of the consequences of a topical plan. Prefer—

[1] Weighability—scenarios can be weighed through impact calc, but resistance methods can’t vecause you can’t weigh opposition to structures of inequality—that freezes actions because there’s no way to decide between multiple actions

[2] Anything else is self serving and arbitrary because it’s not tied to the res—only the resolution is given to both debaters at the same time to prepare so their framework is not a stasis for preparation – outweighs because it’s a pre-req to clash

#### **Evaluating consequences is good—creates meaningful discussion instead of hostile exchange**

Bracey 06, Christopher A [Christopher Alan Bracey is an American law professor and former litigator. In 2017, he serves as a law professor at the George Washington University Law School and Vice Provost for Faculty Affairs at the George Washington University. He is a leading scholar on race, inequality, and the law.]. “The Cul De Sac of Race Preference Discourse.” SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, September 1, 2006. https://papers.ssrn.com/abstract=2018352.~Anop

Second, reducing conversation on race matters to an ideological contest allows opponents to elide inquiry into whether the results of a particular preference policy are desirable. Policy positions masquerading as principled ideological stances create the impression that a racial policy is not simply a choice among available alternatives, but the embodiment of some higher moral principle. Thus, the “principle” becomes an end in itself, without reference to outcomes. Consider the prevailing view of colorblindness in constitutional discourse. Colorblindness has come to be understood as the embodiment of what is morally just, independent of its actual effect upon the lives of racial minorities. This explains Justice Thomas’s belief in the “moral and constitutional equivalence” between Jim Crow laws and race preferences, and his tragic assertion that “Government cannot make us equal [but] can only recognize, respect, and protect us as equal before the law.”281 For Thomas, there is no meaningful difference between laws designed to entrench racial subordination and those designed to alleviate conditions of oppression. Critics may point out that colorblindness in practice has the effect of entrenching existing racial disparities in health, wealth, and society. But in framing the debate in purely ideological terms, opponents are able to avoid the contentious issue of outcomes and make viability determinations based exclusively on whether racially progressive measures exude fidelity to the ideological principle of colorblindness. Meaningful policy debate is replaced by ideological exchange, which further exacerbates hostilities and deepens the cycle of resentment.282

#### That is the only egalitarian metric---anything else collapses cooperation on collective action crises and makes extinction inevitable

Khan 18 (Risalat, activist and entrepreneur from Bangladesh passionate about addressing climate change, biodiversity loss, and other existential challenges. He was featured by The Guardian as one of the “young climate campaigners to watch” (2015). As a campaigner with the global civic movement Avaaz (2014-17), Risalat was part of a small core team that spearheaded the largest climate marches in history with a turnout of over 800,000 across 2,000 cities. After fighting for the Paris Agreement, Risalat led a campaign joined by over a million people to stop the Rampal coal plant in Bangladesh to protect the Sundarbans World Heritage forest, and elicited criticism of the plant from Crédit Agricolé through targeted advocacy. Currently, Risalat is pursuing an MPA in Environmental Science and Policy at Columbia University as a SIPA Environmental Fellow, “5 reasons why we need to start talking about existential risks,” https://www.weforum.org/agenda/2018/01/5-reasons-start-talking-existential-risks-extinction-moriori/)

Infinite future possibilities I find the story of the Moriori profound. It teaches me two lessons. Firstly, that human culture is far from immutable. That we can struggle against our baser instincts. That we can master them and rise to unprecedented challenges. Secondly, that even this does not make us masters of our own destiny. We can make visionary choices, but the future can still surprise us. This is a humbling realization. Because faced with an uncertain future, the only wise thing we can do is prepare for possibilities. Standing at the launch pad of the Fourth Industrial Revolution, the possibilities seem endless. They range from an era of abundance to the end of humanity, and everything in between. How do we navigate such a wide and divergent spectrum? I am an optimist. From my bubble of privilege, life feels like a rollercoaster ride full of ever more impressive wonders, even as I try to fight the many social injustices that still blight us. However, the accelerating pace of change amid uncertainty elicits one fundamental observation. Among the infinite future possibilities, only one outcome is truly irreversible: extinction. Concerns about extinction are often dismissed as apocalyptic alarmism. Sometimes, they are. But repeating that mankind is still here after 70 years of existential warning about nuclear warfare is a straw man argument. The fact that a 1000-year flood has not happened does not negate its possibility. And there have been far too many nuclear near-misses to rest easy. As the World Economic Forum’s Annual Meeting in Davos discusses how to create a shared future in a fractured world, here are five reasons why the possibility of existential risks should raise the stakes of conversation: 1. Extinction is the rule, not the exception More than 99.9% of all the species that ever existed are gone. Deep time is unfathomable to the human brain. But if one cares to take a tour of the billions of years of life’s history, we find a litany of forgotten species. And we have only discovered a mere fraction of the extinct species that once roamed the planet. In the speck of time since the first humans evolved, more than 99.9% of all the distinct human cultures that have ever existed are extinct. Each hunter-gatherer tribe had its own mythologies, traditions and norms. They wiped each other out, or coalesced into larger formations following the agricultural revolution. However, as major civilizations emerged, even those that reached incredible heights, such as the Egyptians and the Romans, eventually collapsed. It is only in the very recent past that we became a truly global civilization. Our interconnectedness continues to grow rapidly. “Stand or fall, we are the last civilization”, as Ricken Patel, the founder of the global civic movement Avaaz, put it. 2. Environmental pressures can drive extinction More than 15,000 scientists just issued a ‘warning to humanity’. They called on us to reduce our impact on the biosphere, 25 years after their first such appeal. The warning notes that we are far outstripping the capacity of our planet in all but one measure of ozone depletion, including emissions, biodiversity, freshwater availability and more. The scientists, not a crowd known to overstate facts, conclude: “soon it will be too late to shift course away from our failing trajectory, and time is running out”. In his 2005 book Collapse, Jared Diamond charts the history of past societies. He makes the case that overpopulation and resource use beyond the carrying capacity have often been important, if not the only, drivers of collapse. Even though we are making important incremental progress in battles such as climate change, we must still achieve tremendous step changes in our response to several major environmental crises. We must do this even while the world’s population continues to grow. These pressures are bound to exert great stress on our global civilization. 3. Superintelligence: unplanned obsolescence? Imagine a monkey society that foresaw the ascendance of humans. Fearing a loss of status and power, it decided to kill the proverbial Adam and Eve. It crafted the most ingenious plan it could: starve the humans by taking away all their bananas. Foolproof plan, right? This story describes the fundamental difficulty with superintelligence. A superintelligent being may always do something entirely different from what we, with our mere mortal intelligence, can foresee. In his 2014 book Superintelligence, Swedish philosopher Nick Bostrom presents the challenge in thought-provoking detail, and advises caution. Bostrom cites a survey of industry experts that projected a 50% chance of the development of artificial superintelligence by 2050, and a 90% chance by 2075. The latter date is within the life expectancy of many alive today. Visionaries like Stephen Hawking and Elon Musk have warned of the existential risks from artificial superintelligence. Their opposite camp includes Larry Page and Mark Zuckerberg. But on an issue that concerns the future of humanity, is it really wise to ignore the guy who explained the nature of space to us and another guy who just put a reusable rocket in it? 4. Technology: known knowns and unknown unknowns Many fundamentally disruptive technologies are coming of age, from bioengineering to quantum computing, 3-D printing, robotics, nanotechnology and more. Lord Martin Rees describes potential existential challenges from some of these technologies, such as a bioengineered pandemic, in his book Our Final Century. Imagine if North Korea, feeling secure in its isolation, could release a virulent strain of Ebola, engineered to be airborne. Would it do it? Would ISIS? Projecting decades forward, we will likely develop capabilities that are unthinkable even now. The unknown unknowns of our technological path are profoundly humbling. 5. 'The Trump Factor' Despite our scientific ingenuity, we are still a confused and confusing species. Think back to two years ago, and how you thought the world worked then. Has that not been upended by the election of Donald Trump as US President, and everything that has happened since? The mix of billions of messy humans will forever be unpredictable. When the combustible forces described above are added to this melee, we find ourselves on a tightrope. What choices must we now make now to create a shared future, in which we are not at perpetual risk of destroying ourselves? Common enemy to common cause Throughout history, we have rallied against the ‘other’. Tribes have overpowered tribes, empires have conquered rivals. Even today, our fiercest displays of unity typically happen at wartime. We give our lives for our motherland and defend nationalistic pride like a wounded lion. But like the early Morioris, we 21st-century citizens find ourselves on an increasingly unstable island. We may have a violent past, but we have no more dangerous enemy than ourselves. Our task is to find our own Nunuku’s Law. Our own shared contract, based on equity, would help us navigate safely. It would ensure a future that unleashes the full potential of our still-budding human civilization, in all its diversity. We cannot do this unless we are humbly grounded in the possibility of our own destruction. Survival is life’s primal instinct. In the absence of a common enemy, we must find common cause in survival. Our future may depend on whether we realize this.

Extinction First –

[a] Forecloses future improvement – we can never improve society because our impact is irreversible

[b] Turns suffering – mass death causes suffering because people can’t get access to resources and basic necessities

[c] Moral uncertainty – if we’re unsure about which interpretation of the world is true – we ought to preserve the world to keep debating about it

#### [d] war turns suffering – underprivileged groups would be first to be drafted – aff actively cosigns people to fight in wars for a country that’s immoral

### Advantage

**The pharmaceutical industry is more powerful than you think – they’ll privatize the modern nation-state before losing their patents**

**Preciado 08.** Paul Preciado (Spanish philosopher, queer theorist, and king), 2008, “Testo Junkie,” translated by Bruce Benderson, I have a pdf, if you need it, sean!

Contemporary biodrag activism is confronted, fifty years after Agnes, with a new set of violent neoliberal economic and politic strategies, including the privatization of the health system, government deregulation, deep cuts in social spending, and the militarization of social life. In the present context, it’s possible to imagine (at least) two tracks of development for the pharmacopornographic economy in the face of which different modes of activism could be articulated. The first is the preservation of theological-humanist political states that regulate the action of the neoliberal (meaning free trade, either democratic or totalitarian in the context of globalization) pharmacopornographic economy. Current pharmacopornographic corporations would function as free market tentacles inside contemporary nation-states (which would continue to see themselves as sovereign and patriarchal) and would negotiate with them to determine the directives for the production, use, and consumption of chemical prostheses and semiotic gender and sex codes. The second transformation is one into an abstract deterritorialized nation-state of the pharmacopornographic industry. We could also be witnessing a process of privatization of contemporary nation-states, which would be progressively absorbed by the pharmacopornographic industry. This would be the strategy employed by the pharmacopornographic companies to escape pre-1970s regulations imposed by states (to avoid the gradual transformation of pharmaceutical patents into generics, the more or less severe regulation of the production and distribution of pornographic audiovisual material, and attempts to abolish prostitution), as these companies engage in the political direction of new national entities (via the FDA; the International Monetary Fund; the European Union; and the governments of the United States, China, or India) and purchase state institutions (for example, the Department of Health or Department of Justice or the prison-industrial complex) and put them to work to their benefit, refilling such archaic institutions with new content whose only objective would be increasing consumption and pharmacopornographic profits.

#### IP protection is needed to increase vaccine production.

Silverman ND, Rachel Silverman. [Policy Fellow, CGD.] “Would Exempting COVID-19 Vaccines from Intellectual Property Rights Improve Global Access and Equity?”, Center for Global Development, No Date. //recut WW DL

I agree that the current imperative is to scale existing vaccines as quickly as possible while maintaining strict safety and quality standards. But for the premise of this debate to be true, there would need to be additional manufacturers who could and would stand ready to manufacture additional vaccines if not thwarted by IP restrictions. I see no evidence that is currently the case—and, to the contrary, believe taking an antagonistic posture toward IP may actually slow or **compromise** **production**. Innovator companies are under enormous commercial and geopolitical pressure to scale as quickly as possible to meet enormous, immediate demand. Their profit-driven interest, in this case, is aligned with the **global imperative** to **increase production**. To do so, they are already cooperating widely with competitors and generic manufacturers, including via voluntary licenses, contracted production, and proactive technology transfer. Diluting that **commercial incentive** may reduce their interest in pursuing the **voluntary horizontal collaborations** that are already **driving scale**. It is also not clear that any additional generic manufacturers are “standing by” ready to produce. Under existing TRIPS flexibilities, countries can already issue compulsory licenses to produce vaccines without permission from the patent-holder. None have done so. Voluntary licensing and technology transfer from originator companies can help increase long-term manufacturing capacity, especially if paired with public investment; originators also have an interest in enforcing safety and quality control standards while doing so, which is especially important in the context of widespread vaccine hesitancy. Their cooperation is important for both speed and quality, and so far they seem willing to play ball. To be clear, I am not arguing that IP protections always serve the public good; nor am I necessarily ruling out a future scenario in which IP becomes a major challenge for global access. But all evidence suggests the current constraint to global access is capacity, not legal strictures.

#### Demolishing patent rights hinders incentives – IPRs were working

**Glassman 5/6**, Amanda. “Big Pharma Is Not the Tobacco Industry.” Biden's TRIPS Waiver Decision Will Undermine Medical Innovation, Barrons, 6 May 2021, www.barrons.com/articles/big-pharma-is-not-the-tobacco-industry-51620315693.

Big Pharma offers an easy punching bag. To some extent, the hostility is understandable. Pharmaceutical companies make their money by selling lifesaving innovations that they alone control. When prices are too high, people are forced into poverty to pay for medicine, or they get sick and die for lack of access. Pharma companies too often use dirty tactics to extend patent exclusivity and prevent competition; they also lobby aggressively to defend their financial interests, even at the expense of the public interest. But here is the crux of the problem: The pharmaceutical industry is not the tobacco industry. They are not merchants of death. The companies are amoral and exist to make money, but their business is not fundamentally immoral. Big Pharma (mostly) develops and sells products that people need to survive and thrive. Their products improve health and welfare. Fights over access to medicines are possible because medicines exist in the first place—medicines that were usually developed by Big Pharma. And yes, the pharmaceutical industry benefits from public subsidy and publicly financed foundational research. But the companies also put their own capital at risk to develop new products, some of which offer enormous public benefits. In fact, several of them did just that in the pandemic: invested their own money to develop patented manufacturing technologies in record time. Those technologies are literally saving the world right now. Public funding supported research and development, but companies also brought their own proprietary ingenuity and private investments to bear toward solving the world’s singular, collective challenge. Their reward should be astronomical given the insane scale of the health and economic benefits these highly efficacious vaccines produce every day. Market incentives sent a clear signal that further needed innovation—greater efficacy, single doses, more-rapid manufacturing, updated formulations, fast boosters, and others—would be richly rewarded. Market incentives could also have been used to lubricate supply lines and buy vaccines on behalf of the entire world; with enough money, incredible things can happen. But activist lobbying to waive patents—a move the Biden administration [endorsed yesterday](https://www.barrons.com/articles/u-s-to-back-waivers-for-covid-19-vaccine-patents-51620300821?mod=article_inline)—sends exactly the opposite signal. It says that the most important, valuable innovations will be penalized, not rewarded. It tells innovators, don’t bother attacking the most important global problems; instead, throw your investment dollars at the next treatment for erectile disfunction, which will surely earn you a steady return with far less agita. It is worth going back to first principles. What problem are we trying to solve? We have highly efficacious vaccines that we would like to get out to the entire world as quickly as possible to minimize preventable disease and deaths, address atrocious inequities, and enable the reopening of society, trade, and commerce. Hundreds of millions of people have been plunged into poverty over the past year; in the developing world, the pandemic is just getting started. What is the quickest way to get this done? Vaccine manufacturing [is not just a recipe](https://blogs.sciencemag.org/pipeline/archives/2021/02/02/myths-of-vaccine-manufacturing); if you attack and undermine the companies that have the know-how, do you really expect they’ll be eager to help you set up manufacturing elsewhere? Is the plan to march into [Pfizer](https://www.barrons.com/quote/PFE) and force its staff to redeploy to Costa Rica to build a new factory? Do the U.S. administration or activists care that this decision could take years to negotiate at the World Trade Organization, and will likely be litigated for years thereafter? Does it make sense to eliminate the incentive for private companies to invest in vaccine R&D or in the response to the next health emergency? And if the patent waiver is only temporary and building a factory takes months or years, will anyone bother to do so, even if they could? No, none of it makes sense. Worse still, we could solve the policy problem more easily by harnessing market incentives for the global good by ponying up cash to vaccinate the entire world. No confiscation necessary. The big problem is that countries have not bought enough vaccine to inoculate most of their populations. [Covax](https://www.barrons.com/articles/seth-berkley-vaccine-manufacturers-need-to-step-up-on-affordability-51606502785?mod=article_inline), buying on behalf of 91 lower-income countries, is only collecting enough funding to cover 20% of their population. In many parts of the world, such as the Middle East, sub-Saharan Africa and some countries in Latin America, we see [very low levels](https://openknowledge.worldbank.org/bitstream/handle/10986/35454/How-to-End-the-COVID-19-Pandemic-by-March-2022.pdf?sequence=1&isAllowed=y) of vaccine prepurchasing. We have seen this week that the government of India had not ordered enough vaccine to cover its own population, for example, resulting in export bans on its domestic vaccine manufacturers; nor has it approved the [Pfizer vaccine](https://www.reuters.com/world/india/pfizer-says-it-told-india-there-no-safety-concern-with-its-covid-19-vaccine-2021-05-03/). Our collective focus instead must be to make the market: to set up advance purchase agreements to establish demand via country cooperation, Covax, and the multilateral development banks. Voluntary licensing was also working. [AstraZeneca](https://www.barrons.com/quote/AZN) has done extensive tech transfer, and its vaccine is now being made in South Korea, Belgium, the Netherlands, Argentina, India, and Brazil. With a clear long-term demand trajectory from governments all over the world, coordinated and led by Covax or the U.S. government, incentives for voluntary licensing and technology transfer could have worked. The value of the Pfizer patent is—was?—in the hundreds of billions. The [value of Pfizer and Moderna](https://www.barrons.com/articles/moderna-pfizer-covid-19-vaccine-stock-51620312826?mod=article_inline) as companies in the United States is far more than that. But the cost to just buy vaccine with public monies would come to maybe $50-75 billion, no big deal given the [$16 trillion](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7604733/#:~:text=The%20estimated%20cumulative%20financial%20costs,loss%20would%20be%20nearly%20%24200%2C000.) we’ve lost in economic damage to date. So why use scarce political capital on a contentious and mostly symbolic measure with major short- and long-term downsides? It is feel-good posturing over substance; “principle” over practicality. To even write this essay, I feel the need to defend my bona fides and independence. I have long advocated that payers negotiate medicine and vaccine prices based on value and affordability; I have called out extortionate “rare disease” pricing that uses human lives as hostages. I abhor the opioid peddlers and U.S. lobbying that blocks use of cost-effectiveness as a criterion for government purchase. My organization also declines funding from the pharmaceutical industry because we work on these issues. I am a Democrat. I sincerely, deeply hope I am wrong. And, even so, I am convinced that this policy is a grave error that will permanently erode innovation to tackle the world’s most important problems, and, worse, excuse U.S. inaction and lack of leadership on Covid-19 around the world.