# 1NC

### T-Reduce

#### 1] Interpretation – Reduce means to cancel.

Black’s Law 90 Black’s Law Dictionary 2ND ED. “Reduce” <https://dictionary.thelaw.com/reduce/> //Elmer

In Scotch law. **To rescind or annul**.

#### That means the Aff has to annul IP protections in their entirety, they can’t just modify it.

#### 2] Violation – They “delay enforcement” which is a modification, not a complete annulment

#### 3] Standards –

#### a] Neg Ground – Core Neg Generics like Innovation and Biotech Heg are predicated on scope of effect – minor modifications in how long a patent lasts for or what it effects allows the 1AR to minimize our links to zero which destroys being Neg on a Topic w/ very little Generic Ground.

#### b] Limits – Allowing Affs to make patent modifications explodes Aff ground by three-fold because for all four intellectual property protections for every medicine MULTIPLIED by different time modifications, different scope modifications which makes predictable preparation and in-depth clash impossible.

#### 4] TVA – eliminate the enforcement of all cannabis patents – solves their offense.

#### 5] Paradigm Issues –

#### a] Topicality is Drop the Debater – it’s a fundamental baseline for debate-ability.

#### b] Use Competing Interps – 1] Topicality is a yes/no question, you can’t be reasonably topical and 2] Reasonability invites arbitrary judge intervention and a race to the bottom of questionable argumentation.

#### c] No RVI’s - 1] Forces the 1NC to go all-in on Theory which kills substance education, 2] Encourages Baiting since the 1AC will purposely be abusive, and 3] Illogical – you shouldn’t win for not being abusive.

### T-Medicine

#### Interpretation – Marijuana isn’t a Medicine

Mosley 20, Mark. "Medical Marijuana Is a Dangerous Lie." Emergency Medicine News 42.8 (2020): 2-3. (Dr. Mark Mosley is an emergency medicine physician in Wichita, Kansas and is affiliated with Wesley Healthcare Center. He received his medical degree from University of Oklahoma College of Medicine and has been in practice for more than 20 years.)//Elmer

**Marijuana is not a medical drug.** It is a **slang term for** a **plant of the Cannabis family that contains more than 60 different cannabinoid substances and more than 80 biologically active compounds**. Using the term marijuana in place of THC would be like using willow tree in place of acetylsalicylic acid, the active ingredient in aspirin.

#### FDA and CDC definitions prove.

CDC ’18 (CDC; Centers for Disease Control and Prevention; 3-7-2018; “**Is marijuana medicine**?”; CDC; <https://www.cdc.gov/marijuana/faqs/is-marijuana-medicine.html>; Accessed: 9-4-2021; AU)

The marijuana plant has chemicals that may help symptoms for some health problems. More and more states are making it legal to use the plant as medicine for certain conditions. But there isn’t **enough research** to show that the whole plant works to treat or cure these conditions. Also, the U.S. Food and Drug Administration (FDA) **has not recognized** or **approved** the marijuana plant **as medicine**. Because marijuana is often smoked, it can damage your lungs and cardiovascular system (e.g., heart and blood vessels). These and other damaging effects on the brain and body could make marijuana more harmful than helpful as a medicine. Another problem with marijuana as a medicine is that the ingredients aren’t exactly the same from plant to plant. There’s no way to know what kind and how much of a chemical you’re getting.

#### **Violation – the resolution calls for reductions on IP protections for medicines, but the aff prevents future patents for cannabis-derived products.**

#### Vote neg for limits and ground. Expanding the definition of “medicine” to anything that could be used in a medical setting floods the neg with cases to prep for – everything from new methods of chemo to upgrading stethoscopes becomes topical.

#### At best – they’re extra-T since Cannabis isn’t intrinsically medicinal, it just has medicinal uses so they would reduce Recreational Marijuana patents too which isn’t topical and explodes limits.

Johnson 20 Ian Johnson 1-20-2020 "Cannabis Patents 2000 – 2019: Trends Following Legalization" <https://plantlaw.com/2020/01/20/cannabis-trends-medical-recreational/> (Registered Patent Agent, Plant & Planet Law Firm)//Elmer

These findings correspond to the overall increase in **cannabis-related patents** and demonstrate that the recreational patent sector is growing at an even greater rate than cannabis patents generally. This supports the theory that recreational markets and expansion of legal personal use of cannabis have resulted in an increase in patent activity in the industry. Again, publication totals are not necessarily the most accurate reflection of patent behavior by cannabis businesses. Therefore, it is useful to examine filing and provisional trends for recreational patents. These results are subject to the same 18-month delay problems noted above, and therefore actual and projected values are provided. Using actual filing data for 2017, there has been a 181% increase in filing activity since 2012. Using projected filing data for 2019, there has been a 257% increase in recreational filing activity since 2012. Using actual priority claims for 2017, there has been a 196% increase in provisional filing activity since 2012. Using projected priority claims for 2019, there has been a 289% increase in recreational provisional filing activity since 2012. The following charts demonstrate recreational filing trends from 2012 to 2019. Patents **that could be classified as recreational** **made up approximately 53% of all filings** between 2000 and 2011. However, **following legalization** the percent of patents and applications considered recreational has **increased to** approximately **77% of filings in 2018**. The chart below demonstrates the growth of the recreational sector’s share of cannabis patent activity.

#### C/A Paradigm Issues

### T-Vagueness

#### “Delay” is Vague – that’s a voting issue for Aff shiftiness since they can infinitely delay patent enforcement which wrecks Neg Ground

WEC No Date We Agree Contracting “(l) Certain **vague terms**: without undue **delay**” <https://weagree.com/drafting-principles/6-typical-drafting-habits-and-legalese/6-2-dos-and-donts/l-certain-vague-terms-without-undue-delay/> //Elmer

Many **contract provisions remain silent on the precise period of time** within which something has to happen. The alternative for immediate or prompt action, acting upon the occurrence of a fact or acting within 30 days after a notice was received, is to allow that an action must be undertaken without undue delay. There may be many reasons for this: the fact or event triggering an obligation (or a right) to act is itself vague; it is not foreseeable how much time is needed in order to take the required (or allowed) action effectively and efficiently, whereas an adequate preparation is anyhow desirable; when a triggering event occurs, there is probably no urgency to act immediately, in which case thoughtless action, merely to prevent that contractual rights lapse, should be discouraged (but also the opposite may be true); **not providing for any limitation in time creates too much uncertainty.**

#### Independently vote Negative on Presumption since the Aff gets struck down for being void-for-vagueness

Singer 10 Bill Singer 9-13-2010 “Yo, Congress, Keep On Truckin' -- Can You Dig It?” <http://www.brokeandbroker.com/index.php?a=blog&id=554> (Bill Singer is a lawyer who represents securities-industry firms, individual registered persons, Wall Street whistleblowers, and defrauded public investors. For over three decades, Singer has represented clients before the American Stock Exchange, the New York Stock Exchange, the Financial Industry Regulatory Authority (formerly the NASD), the United States Securities and Exchange Commission, and in criminal investigations brought by various federal, state, and local prosecutors. Before entering the private practice of law, Singer was employed in the Legal Department of Smith Barney, Harris Upham & Co.; as a regulatory attorney with both the American Stock Exchange and the NASD (now FINRA); and as a Legal Counsel to Integrated Resources Asset Management. Singer was formerly Chief Counsel to the Financial Industry Association; General Counsel to the NASD Dissidents' Grassroots Movement; and General Counsel to the Independent Broker-Dealer Association. He was registered for a number of years as a Series 7 and Series 63 stockbroker.)//Elmer

All of which makes **it critical that** the **laws**, rules, and regulations of Wall Street be promulgated in an intelligible manner that **clearly sets forth** **what is allowed and what is prohibited**. What a provision was meant to say should be what it says -- there shouldn't be any guessing or uncertainty. Unfortunately, so much of what has been proposed as financial regulatory reform, and so much of what will likely emanate from the various agencies and commissions that will soon embark upon rulemaking, is vague. **If there is one thing** that **courts will not tolerate** **it is vagueness**. The **law books** are **filled with** agreements, contracts, rules, regulations, and **laws** **that have been struck down as void for vagueness**. I fear that much of FINREG may be headed for the same garbage can.

### Innovation DA

#### Strong current IP guarantees causes massive Pharma innovation.

* Answers Evergreening/Me-Too Drugs

Stevens and Ezell 20 Philip Stevens and Stephen Ezell 2-3-2020 "Delinkage Debunked: Why Replacing Patents With Prizes for Drug Development Won’t Work" <https://itif.org/publications/2020/02/03/delinkage-debunked-why-replacing-patents-prizes-drug-development-wont-work> (Philip founded Geneva Network in 2015. His main research interests are the intersection of intellectual property, trade, and health policy. Formerly he was an official at the World Intellectual Property Organization (WIPO) in Geneva, where he worked in its Global Challenges Division on a range of IP and health issues. Prior to his time with WIPO, Philip worked as director of policy for International Policy Network, a UK-based think tank, as well as holding research positions with the Adam Smith Institute and Reform, both in London. He has also worked as a political risk consultant and a management consultant. He is a regular columnist in a wide range of international newspapers and has published a number of academic studies. He holds degrees from the London School of Economics and Durham University (UK).)//Elmer

The **Current System** Has **Produced a Tremendous Amount of Life-Sciences Innovation** The frontier for biomedical innovation is seemingly limitless, and the challenges remain numerous—whether it comes to diseases that afflict millions, such as cancer or malaria, or the estimated 7,000 rare diseases that afflict fewer than 200,000 patients.24 And while certainly citizens in developed and developing nations confront differing health challenges, those challenges are increasingly converging. For instance, as of this year, analysts expect that **noncommunicable** diseases such as cardiovascular disease and diabetes will account for 70 percent of natural fatalities **in developing countries**.25 Citizens of low- and middle-income countries bear 80 percent of the world’s death burden from cardiovascular disease.26 Forty-six percent of Africans over 25 suffer from hypertension, more than anywhere else in the world. Similarly, 85 percent of the disease burden of cervical cancer is borne by individuals living in low- and middle-income countries.27 To develop treatments or cures for these conditions, novel biomedical innovation **will be needed from everywhere**. Yet tremendous progress has been made in recent decades. To tackle these challenges, the global pharmaceutical industry invested over **$1.36 trillion in R&D** in the decade from 2007 to 2016—and it’s expected that annual R&D investment by the global pharmaceutical industry will reach $181 billion by 2022.28 In no small part due to that investment, **943 new active substances have been introduced** globally over the prior 25 years.29 The U.S. Food and Drug Administration (FDA) has approved more than **500 new medicines since 2000** alone. And these medicines are getting to more individuals: Global medicine use **in 2020 will reach 4.5 trillion doses**, up 24 percent from 2015.30 Moreover, there are an estimated 7,000 new medicines under development globally (about half of them in the United States), with 74 percent being potentially first in class, meaning they use a new and unique mechanism of action for treating a medical condition.31 In the United States, over 85 percent of all drugs sold are generics (only 10 percent of U.S. prescriptions are filled by brand-name drugs).32 And while some assert that biotechnology companies focus too often on “me-too” drugs that compete with other treatments already on the market, the reality is many drugs currently under development are meant to tackle some of the **world’s most intractable diseases**, **including cancer and Alzheimer’s**.33 Moreover, such arguments miss that many of the drugs developed in recent years have in fact been first of their kind. For instance, in 2014, the FDA approved **41 new medicines** (at that point, the most since 1996) many of which were first-in-class medicines.34 In that year, 28 of the 41 drugs approved were considered biologic or specialty agents, and 41 percent of medicines approved were intended to treat rare diseases.35 Yet even when a new drug isn’t first of its kind, it can still produce benefits for patients, both through **enhanced clinical efficacy** (for instance, taking the treatment as a pill rather than an injection, with a superior dosing regimen, **or better treatment** for some individuals who don’t respond well to the original drug) and by generating competition that exerts downward price pressures. For example, a patient needing a cholesterol drug has a host of statins from which to choose, which is important because some statins produce harmful side effects for some patients. Similarly, patients with osteoporosis can choose from Actonel, Boniva, or Fosomax. Or take for example Hepatitis C, which until recently was an incurable disease eventually requiring a liver transplant for many patients. In 2013, a revolutionary new treatment called Solvadi was released that boosted cure rates to 90 percent. This was followed in 2014 by an improved treatment called Harvoni, which cures the Hepatitis C variant left untouched by Solvadi. Since then, an astonishing six new treatments for the disease have received FDA approval, opening up a wide range of treatment options that take into account patients’ liver and kidney status, co-infections, potential drug interactions, previous treatment failures, and the genotype of HCV virus.36 “If you have to have Hepatitis C, now is the time to have it,” as Douglas Dieterich, a liver specialist at the Icahn School of Medicine at Mount Sinai Hospital in New York, told the Financial Times. “We have these marvellous drugs we can treat you with right now, without side effects,” he added. “And this time next year, we’ll have another round of drugs available.”37 Moreover, the financial potential of this new product category has led to multiple competing products entering the market in quick succession, in turn placing downward pressure on prices.38 As Geoffrey Dusheiko and Charles Gore write in The Lancet, “The market has done its work for HCV treatments: after competing antiviral regimens entered the market, competition and innovative price negotiations have driven costs down from the initially high list prices in developed countries.”39 As noted previously, opponents of the current market- and IP-based system contend patents enable their holders to exploit a (temporary) market monopoly by inflating prices many multiples beyond the marginal cost of production. But rather than a conventional neoclassical analysis, an analysis based on “innovation economics” finds it is exactly this “distortion” that is required for innovation to progress. As William Baumol has pointed out, “Prices above marginal costs and price discrimination become the norm rather than the exception because … without such deviations from behaviour in the perfectly competitive model, innovation outlays and other unavoidable and repeated sunk outlays cannot be recouped.”40 Or, as the U.S. Congressional Office of Technology Assessment found, “Pharmaceutical R&D is a risky investment; therefore, high financial returns are necessary **to induce companies to invest** in researching new chemical entities.”41 This is also why, in 2018, the U.S. Congressional Budget Office estimated that because of high failure rates, biopharmaceutical **companies would need to earn a 61.8 percent rate of return on their successful new drug R&D projects in order to match a 4.8 percent after-tax rate of return on their investment**s.42 Indeed, **it’s the ability to recoup fixed costs, not just marginal** costs, through mechanisms such as patent protection that lies at the heart of all innovation-based industries and indeed all innovation and related economic progress. If companies could not find a way to pay for their R&D costs, and could only charge for the costs of producing the compound, **there would be no new drugs developed**, just as there would be no new products developed in any industry. Innovating in the life sciences remains expensive, risky, difficult, and uncertain. Just 1 in 5,000 drug candidates make it all the way from discovery to market.43 A 2018 study by the Deloitte Center for Health Solutions, “Unlocking R&D productivity: Measuring the return from pharmaceutical innovation 2018,” found that “the average cost to develop an asset [an innovative life-sciences drug] including the cost of failure, has increased in six out of eight years,” and that the average cost to create a new drug has risen to $2.8 billion.44 Related research has found the development of new drugs requires years of painstaking, risky, and expensive research that, for a new pharmaceutical compound, takes an average of 11.5 to 15 years of research, development, and clinical trials, at a cost of $1.7 billion to $**3.2 billion**.45 IP rights—including patents, copyrights, and data exclusivity protections—give innovators, whether in the life sciences or other sectors, the **confidence** to undertake the risky and expensive process of innovation, secure in the knowledge they’ll be able to capture a share of the gains from their efforts. And these gains are often only a small fraction of the true value created. For instance, Yale University economist William Nordhaus estimated inventors capture just 4 percent of the total social gains from their innovations; the rest spill over to other companies and society as a whole.46 Without adequate IP protection, private investors would never find it viable to fund advanced research because lower-cost copiers would be in a position to undercut the legitimate prices (and profits) of innovators, even while still generating substantial profits on their own.47 As the report “Wealth, Health and International Trade in the 21st Century” concludes, “Conferring robust intellectual property rights is, in the pharmaceutical and other technological-development contexts, **in the global public’s long-term interests.** Without adequate mechanisms for directly and indirectly securing the private and public funding of medicines and vaccines, research and development communities across the world will lose future benefits that would far outweigh the development costs involved.”48 Put simply, the current market- and IP-based life-sciences innovation system is producing life-changing biomedical innovation. As Jack Scannell, a senior fellow at Oxford University’s Center for the Advancement of Sustainable Medical Innovation has explained, “I would guess that one can buy today, at rock bottom generic prices, a set of small-molecule drugs that has greater medical utility than the entire set available to anyone, anywhere, at any price in 1995.” He continued, “Nearly all the generic medicine chest was created by firms who invested in R&D to win future profits that they tried pretty hard to maximize; short-term financial gain building a long-term common good.”49 For example, on September 14, 2017, the FDA approved Mvasi, the first biosimilar for Roche’s Avastin, a breakthrough anticancer drug when it came out in the mid-1990s for lung, cervical, and colorectal cancer.50 In other words, a medicine to treat forms of cancer that barely existed 20 years ago is now available as a generic drug today. It’s this dynamic that enables us to imagine a situation wherein drugs to treat diseases that aren’t available anywhere at any price today (for instance, treatments for Alzheimer’s or Parkinson’s) might be available as generics in 20 years. But that will only be the case if we preserve (and improve where possible) a life-sciences innovation system that is generally working. The current system does not require wholesale replacement by a prize-based system that—notwithstanding a meaningful success here or there—has produced nowhere near a similar level of novel biomedical innovation.

#### **Reducing IP protections chills future investment – even the perception of wavering commitment scares off companies.**

Grabowski et al. ’15 (Harry; Professor Emeritus of Economics at Duke, and a specialist in the intersection of the pharmaceutical industry and government regulation of business; February 2015; “The Roles Of Patents And Research And Development Incentives In Biopharmaceutical Innovation”; Health Affairs; <https://www.healthaffairs.org/doi/10.1377/hlthaff.2014.1047>; Accessed: 8-31-2021; AU)

Patents and other forms of **intellectual property** **protection** play **essential roles** in encouraging innovation in biopharmaceuticals. As part of the “21st Century Cures” initiative, Congress is reviewing the policy mechanisms designed to accelerate the discovery, development, and delivery of new treatments. Debate continues about how best to balance patent and intellectual property incentives to encourage innovation, on the one hand, and generic utilization and price competition, on the other hand. We review the current framework for accomplishing these dual objectives and the important role of patents and regulatory exclusivity (together, the patent-based system), given the lengthy, costly, and risky biopharmaceutical research and development process. We summarize existing targeted incentives, such as for orphan drugs and neglected diseases, and we consider the pros and cons of proposed voluntary or mandatory alternatives to the patent-based system, such as prizes and government research and development contracting. We conclude that patents and regulatory exclusivity provisions are likely to remain the core approach to providing incentives for biopharmaceutical research and development. However, prizes and other voluntary supplements could play a useful role in addressing unmet needs and gaps in specific circumstances. Technological innovation is widely recognized as a key determinant of economic and public health progress. 1,2 Patents and other forms of intellectual property protection are generally thought to play essential roles in encouraging innovation in biopharmaceuticals. This is because the process of developing a new drug and bringing it to market is **long, costly, and risky**, and the costs of imitation are low. After a new drug has been approved and is being marketed, its **patents protect it** from competition from chemically identical entrants (or entrants infringing on other patents) for a period of time. **For firms** to have an **incentive** to **continue to invest** in innovative development efforts, they must have an **expectation** that they can **charge enough** during this period to **recoup** costs and make a profit. After a drug’s patent or patents expire, **generic rivals** can enter the market at **greatly reduced development cost** and prices, providing added consumer benefit but **eroding** the **innovator drug** company’s revenues. The Drug Price Competition and Patent Term Restoration Act of 1984 (commonly known as the Hatch-Waxman Act) was designed to balance innovation incentives and generic price competition for new drugs (generally small-molecule chemical drugs, with some large-molecule biologic exceptions) by extending the period of a drug’s marketing exclusivity while providing a regulatory framework for generic drug approval. This framework was later changed to encompass so-called biosimilars for large-molecule (biologic) drugs through the separate Biologics Price Competition and Innovation Act of 2009. Other measures have been enacted to provide research and development (R&D) incentives for antibiotics and drugs to treat orphan diseases and neglected tropical diseases. Discussion continues about whether current innovation incentives are optimal or even adequate, given evolving public health needs and scientific knowledge. For instance, the House Energy and Commerce Committee recently embarked on the “21st Century Cures” initiative, 3 following earlier recommendations by the President’s Council of Advisors on Science and Technology on responding to challenges in “propelling innovation in drug discovery, development, and evaluation.” 4 In this context, we discuss the importance of patents and other forms of intellectual property protection to biopharmaceutical innovation, given the unique economic characteristics of drug research and development. We also review the R&D incentives that complement patents in certain circumstances. Finally, we consider the pros and cons of selected voluntary (“opt-in”) or mandatory alternatives to the current patent- and regulatory exclusivity–based system (such as prizes or government-contracted drug development) and whether they could better achieve the dual goals of innovation incentives and price competition. The essential rationale for patent protection for biopharmaceuticals is that long-term benefits in the form of continued future innovation by pioneer or brand-name drug manufacturers outweigh the relatively short-term restrictions on imitative cost competition associated with market exclusivity. Regardless, the entry of other branded agents remains an important source of therapeutic competition during the patent term. Several economic characteristics make patents and intellectual property protection **particularly important** to **innovation incentives** for the biopharmaceutical industry. 5 The R&D process often takes more than a decade to complete, and according to a recent analysis by Joseph DiMasi and colleagues, per new drug approval (including failed attempts), it involves more than a **billion** dollars in out-of-pocket costs. 6 Only approximately one in eight drug candidates survive clinical testing. 6 As a result of the high risks of failure and the high costs, research and development must be funded by the **few successful, on-market products** (the top quintile of marketed products provide the dominant share of R&D returns). 7,8 Once a new drug’s patent term and any regulatory exclusivity provisions have expired, competing manufacturers are allowed to sell generic equivalents that require the investment of only several million dollars and that have a high likelihood of commercial success. **Absent intellectual property protections** that allow marketing exclusivity, innovative firms would be **unlikely** to make the costly and risky investments needed to bring a new drug to market. Patents confer the right to exclude competitors for a limited time within a given scope, as defined by patent claims. However, **they do not guarantee demand**, nor do they prevent competition from nonidentical drugs that treat the same diseases and fall outside the protection of the patents. New products may enter the same therapeutic class with common mechanisms of action but different molecular structures (for example, different statins) or with differing mechanisms of action (such as calcium channel blockers and angiotensin receptor blockers). 9 Joseph DiMasi and Laura Faden have found that the time between a first-in-class new drug and subsequent new drugs in the same therapeutic class has been dramatically reduced, from a median of 10.2 years in the 1970s to 2.5 years in the early 2000s. 10 Drugs in the same class compete through quality and price for preferred placement on drug formularies and physicians’ choices for patient treatment. Patents play an **essential role** in the economic “ecosystem” of **discovery and investment** that has developed since the 1980s. Hundreds of start-up firms, often backed by venture capital, have been launched, and a robust innovation market has emerged. 11 The value of these development-stage firms is largely determined by their proprietary technologies and the candidate drugs they have in development. As a result, the **strength of intellectual property protection** plays a **key role** in funding and partnership opportunities for such firms. Universities also play a key role in the R&D ecosystem because they conduct basic biomedical research supported by sponsored research grants from the National Institutes of Health (NIH) and the National Science Foundation (NSF). The Patent and Trademark Law Amendments Act of 1980 (commonly known as the Bayh-Dole Act) gave universities the right to retain title to patents and discoveries made through federally funded research. This change was designed to encourage technology transfer through industry licensing and the creation of start-up companies. Universities received only 390 patents for their discoveries in 1980, 12 compared to 4,296 in 2011, with biotechnology and pharmaceuticals being the top two technology areas (accounting for 36 percent of all university patent awards in 2012). 13

#### Cannabis wipes out superbugs and kills developing mutations, but further research and investments are required.

Sample ’20 [Ian; journalist at New Scientist and worked at the Institute of Physics as a journal editor, PhD in biomedical materials; 1-19-2020; "Cannabis compound could be weapon in fight against superbugs", Guardian; https://www.theguardian.com/society/2020/jan/19/cannabis-compound-could-be-weapon-in-fight-against-superbugs, accessed 4-16-2021]

A compound made by cannabis plants has been found to wipe out drug-resistant bacteria, raising hopes of a new weapon in the fight against superbugs. Scientists screened five cannabis compounds for their antibiotic properties and found that one, cannabigerol (CBG), was particularly potent at killing methicillin-resistant Staphylococcus aureus (MRSA), one of the most common hospital superbugs. Tests in the lab showed that CBG, which is not psychoactive, killed common MRSA microbes and “persister” cells that are especially resistant to antibiotics and that often drive repeat infections. The compound also cleared up hard-to-shift “biofilms” of MRSA that can form on the skin and on medical implants. Having seen how effective the substance was against bacteria in the lab, the researchers decided to test CBG’s ability to treat infections in animals. In a study that has not yet been published, they found that CBG cured mice of MRSA infections as effectively as vancomycin, a drug widely considered to be the last line of defence against drug-resistant microbes. The study is under review at the ACS Infectious Diseases journal. Eric Brown, a microbiologist who led the work at McMaster University in Hamilton, Ontario, said cannabinoids were “clearly great drug-like compounds”, but noted it was early days in assessing the compounds for use in the clinic. “There is much work to do to explore the potential of the cannabinoids as antibiotics from the safety standpoint,” he said. Antibiotic resistance has become a major threat to public health. England’s former chief medical officer Dame Sally Davies has said the loss of effective antibiotics would lead to “apocalyptic scenarios”, with patients dying from routine infections and many operations becoming too risky to perform. In the study, the researchers describe how the rapid global spread of drug resistance, caused by microbes developing mutations that protect them against antibiotics, has driven an urgent need to explore new sources of drugs. Among antibiotics in use today, the newest date back to discoveries made more than 30 years ago.

#### Only CBD solves superbugs.

Stevens ’21 [Kylie; reporter covering medical breakthrough by Researchers at University of Queensland’s Institute for Molecular Bioscience and the peer-reviewed Communications Biology journal; 1-19-2021; Mail Online; https://www.dailymail.co.uk/news/article-9165415/Medical-breakthrough-revealed-cannabis-kill-superbugs-save-10million-lives-year.html, accessed 4-16-2021; RG]

Laboratory studies have shown synthetic cannabidiol, the main nonpsychoactive component of cannabis better known as CBD can kill bacteria in diseases such as gonorrhea, a sexually transmissible infection. The research has been hailed as a potential world medical breakthrough, amid predictions drug-resistant infections could result in 10 million deaths worldwide a year by 2050 unless an alternate treatment is found. The research, recently published in the Communications Biology journal is part of a collaboration between Queensland researchers and Botanix Pharmaceuticals, which lead to the first new class of antibiotics for resistant bacteria in 60 years. 'This is the first time CBD has been shown to kill some types of Gram-negative bacteria. These bacteria have an extra outer membrane, an additional line of defence that makes it harder for antibiotics to penetrate,' Institute for Molecular Bioscience director Dr Mark Blaskovich said in a statement. Researchers also discovered cannabidiol is effective in killing off superbug MRSA found in golden staph bacteria. It may also be used to treat infected diabetic ulcers and wounds. 'Cannabidiol showed a low tendency to cause resistance in bacteria even when we sped up potential development by increasing concentrations of the antibiotic during 'treatment,' Dr Blaskovich added. 'We think that cannabidiol kills bacteria by bursting their outer cell membranes, but we don't know yet exactly how it does that, and need to do further research.'

### Infrastructure DA

#### Biden’s infrastructure bill will pass through reconciliation but absolute Dem Unity is key.

* Turns Structural Violence

Pramuk and Franck 8-25 Jacob Pramuk and Thomas Franck 8-25-2021 "Here’s what happens next as Democrats try to pass Biden’s multitrillion-dollar economic plans" <https://www.cnbc.com/2021/08/25/what-happens-next-with-biden-infrastructure-budget-bills-in-congress.html> (Staff Reporter at CNBC)//Elmer

WASHINGTON — **House Democrats just patched up a party fracture** **to take a critical step forward with a mammoth economic agenda**. But the **path ahead could get trickier** as party leaders try to thread a legislative needle to pass more than $4 trillion in new spending. **In** the **coming weeks**, **Democrats** **aim to approve** a $1 trillion bipartisan **infrastructure** plan and up to $3.5 trillion in investments in social programs. Passing both **will require a heavy lift**, as leaders will need to **satisfy** **competing demands of centrists** wary of spending **and progressives** who want to reimagine government’s role in American households. The House is leaving Washington **until Sept. 20** after taking key steps toward pushing through the sprawling economic plans. The chamber on Tuesday approved a $3.5 trillion budget resolution and advanced the infrastructure bill, as House Speaker Nancy Pelosi, D-Calif., promised centrist Democrats to take up the bipartisan plan by Sept. 27. The Senate already passed the infrastructure legislation, so **a final House vote would send it to Biden’s desk for his** signature. Now that both chambers have passed the budget measure, **Democrats can move without Republicans** to push through their spending plan **via reconciliation**. Party leaders want committees to write their pieces of the bill by Sept. 15 before budget committees package them into one massive measure that can move through Congress. Committees could start marking up legislation in early September. Party leaders **face a challenge** in coming up with a bill that will satisfy centrists who want to trim back the $3.5 trillion price tag and progressives who consider it the minimum Congress should spend. As **one defection in the Senate** — **and four in the House** — **would sink legislation,** **Democrats have to satisfy a diverse range of views** to pass their agenda. “We write a bill with the Senate because it’s no use doing a bill that’s not going to pass the Senate, in the interest of getting things done,” Pelosi told reporters on Wednesday. Given the magnitude of the legislation, passing it quickly could prove difficult. To appease congressional progressives who have prioritized passage of the budget bill, Democrats could move to pass both proposals at about the same time. While Pelosi gave a Sept. 27 target date to approve the infrastructure plan, the commitment is not binding. Still, she noted Wednesday that Congress needs to pass the bill before surface transportation spending authorization expires Sept. 30. “We have long had an eye to having the infrastructure bill on the President’s desk by the October 1, the effective date of the legislation,” she wrote in a separate letter to Democrats on Wednesday. Democrats say the bills combined will provide a jolt to the economy and a lifeline for households. Supporters of the Democratic spending plan, including Pelosi and Senate Budget Committee Chair Bernie Sanders, I-Vt., have cast it as the biggest expansion of the U.S. social safety net in decades. “This is a truly historic opportunity to pass the **most transformative** and consequential **legislation for families** in a century, and will stand alongside the New Deal and Great Society as pillars of **economic security**,” Pelosi wrote to colleagues Wednesday. The plan would **expand Medicare**, **paid leave** and child care, extend enhanced household tax credits and encourage **green energy adoption**, **while hiking taxes on corporations and the wealthy**. Democrats hope to sell a wave of new support for families as they campaign to keep control of Congress in next year’s midterms. Those elections, though, have helped to generate staunch opposition on the other side of the aisle. The GOP has cited the trillions in new spending and the proposed reversal of some of its 2017 tax cuts in trying to take down the Democratic budget bill. Republicans and some Democrats have in recent weeks said that another $4.5 trillion in fiscal stimulus could not only boost economic growth but have the adverse effect of fueling inflation.

#### Pharma backlashes to the Plan – they’re aggressive lobbyists and will do anything to preserve patent rights.

* Turns Case – Waters down the Plan due to lobbying
* Optional Card – still thinking on if its necessary [note from Elmer]

Huetteman 19 Emmarie Huetteman 2-26-2019 “Senators Who Led Pharma-Friendly Patent Reform Also Prime Targets For Pharma Cash” <https://khn.org/news/senators-who-led-pharma-friendly-patent-reform-also-prime-targets-for-pharma-cash/> (former NYT Congressional correspondent with an MA in public affairs reporting from Northwestern University’s Medill School)//Elmer

Early last year, as lawmakers vowed to curb rising drug prices, Sen. Thom Tillis was named chairman of the Senate Judiciary Committee’s subcommittee on intellectual property rights, a committee that had not met since 2007. As the new gatekeeper for laws and oversight of the nation’s patent system, the North Carolina Republican signaled he was determined to make it easier for American businesses to benefit from it — a welcome message to the drugmakers who already leverage patents to block competitors and keep prices high. Less than three weeks after introducing a bill that would make it harder for generic drugmakers to compete with patent-holding drugmakers, Tillis opened the subcommittee’s first meeting on Feb. 26, 2019, with his own vow. “From the United States Patent and Trademark Office to the State Department’s Office of Intellectual Property Enforcement, no department or bureau is too big or too small for this subcommittee to take interest,” he said. “And we will.” In the months that followed, tens of thousands of dollars flowed from pharmaceutical companies toward his campaign, as well as to the campaigns of other subcommittee members — including some who promised to stop drugmakers from playing money-making games with the patent system, like Sen. John Cornyn (R-Texas). Tillis received more than $156,000 from political action committees tied to drug manufacturers in 2019, more than any other member of Congress, a new analysis of KHN’s Pharma Cash to Congress database shows. Sen. Chris Coons (D-Del.), the top Democrat on the subcommittee who worked side by side with Tillis, received more than $124,000 in drugmaker contributions last year, making him the No. 3 recipient in Congress. No. 2 was Sen. Mitch McConnell (R-Ky.), who took in about $139,000. As the Senate majority leader, he controls what legislation gets voted on by the Senate. Neither Tillis nor Coons sits on the Senate committees that introduced legislation last year to lower drug prices through methods like capping price increases to the rate of inflation. Of the four senators who drafted those bills, none received more than $76,000 from drug manufacturers in 2019. Tillis and Coons spent much of last year working on significant legislation that would expand the range of items eligible to be patented — a change that some experts say would make it easier for companies developing medical tests and treatments to own things that aren’t traditionally inventions, like genetic code. They have not yet officially introduced a bill. As obscure as patents might seem in an era of public **outrage** **over** drug prices, the fact that **drugmakers** gave most **to** the **lawmakers working to change the patent system** belies how important securing **the exclusive right to market a drug, and keep competitors at bay, is to their bottom line**. “**Pharma will fight to the death to preserve patent rights**,” said Robin Feldman, a professor at the UC Hastings College of the Law in San Francisco who is an expert in intellectual property rights and drug pricing. “Strong patent rights are central to the games drug companies play to extend their monopolies and keep prices high.” Campaign contributions, closely tracked by the Federal Election Commission, are among the few windows into how much money flows from the political groups of drugmakers and other companies to the lawmakers and their campaigns. Private companies generally give money to members of Congress to encourage them to listen to the companies, typically through lobbyists, whose activities are difficult to track. They may also communicate through so-called dark money groups, which are not required to report who gives them money. Over the past 10 years, the **pharmaceutical industry** has **spent** about $**233 million per year on lobbying**, according to a new study published in JAMA Internal Medicine. That is more than any other industry, including the oil and gas industry. Why Patents Matter Developing and testing a new drug, and gaining approval from the Food and Drug Administration, can take years and cost hundreds of millions of dollars. Drugmakers are generally granted a six- or seven-year exclusivity period to recoup their investments. But drugmakers have found ways to extend that period of exclusivity, sometimes accumulating hundreds of patents on the same drug and blocking competition for decades. One method is to patent many inventions beyond a drug’s active ingredient, such as patenting the injection device that administers the drug. Keeping that arrangement intact, or expanding what can be patented, is where lawmakers come in. Lawmakers Dig In Tillis’ home state of North Carolina is also home to three major research universities and, not coincidentally, multiple drugmakers’ headquarters, factories and other facilities. From his swearing-in in 2015 to the end of 2018, Tillis received about $160,000 from drugmakers based there or beyond. He almost matched that four-year total in 2019 alone, in the midst of a difficult reelection campaign to be decided this fall. He has raised nearly $10 million for his campaign, with lobbyists among his biggest contributors, according to OpenSecrets. Daniel Keylin, a spokesperson for Tillis, said Tillis and Coons, the subcommittee’s top Democrat, are working to overhaul the country’s “antiquated intellectual property laws.” Keylin said the bipartisan effort protects the development and access to affordable, lifesaving medication for patients,” adding: “No contribution has any impact on how [Tillis] votes or legislates.” Tillis signaled his openness to the drug industry early on. The day before being named chairman, he reintroduced a bill that would limit the options generic drugmakers have to challenge allegedly invalid patents, effectively helping brand-name drugmakers protect their monopolies. Former Sen. Orrin Hatch (R-Utah), whose warm relationship with the drug industry was well-known, had introduced the legislation, the Hatch-Waxman Integrity Act, just days before his retirement in 2018. At his subcommittee’s first hearing, Tillis said the members would rely on testimony from private businesses to guide them. He promised to hold hearings on patent eligibility standards and “reforms to the Patent Trial and Appeal Board.” In practice, the Hatch-Waxman Integrity Act would require generics makers challenging another drugmaker’s patent to either take their claim to the Patent Trial and Appeal Board, which acts as a sort of cheaper, faster quality check to catch bad patents, or file a lawsuit. A study released last year found that, since Congress created the Patent Trial and Appeal Board in 2011, it has narrowed or overturned about 51% of the drugmaker patents that generics makers have challenged. Feldman said the drug industry “went berserk” over the number of patents the board changed and has been eager to limit use of the board as much as possible. Patent reviewers are often stretched thin and sometimes make mistakes, said Aaron Kesselheim, a Harvard Medical School professor who is an expert in intellectual property rights and drug development. Limiting the ways to challenge patents, as Tillis’ bill would, does not strengthen the patent system, he said. “You want overlapping oversight for a system that is as important and fundamental as this system is,” he said. As promised, Tillis and Coons also spent much of the year working on so-called Section 101 reform regarding what is eligible to be patented — “a very major change” that “would overturn more than a century of Supreme Court law,” Feldman said. Sean Coit, Coons’ spokesperson, said lowering drug prices is one of the senator’s top priorities and pointed to Coon’s support for legislation the pharmaceutical industry opposes. “One of the reasons Senator Coons is leading efforts in Congress to fix our broken patent system is so that life-saving medicines can actually be developed and produced at affordable prices for every American,” Coit wrote in an email, adding that “his work on Section 101 reform has brought together advocates from across the spectrum, including academics and health experts.” In August, when much of Capitol Hill had emptied for summer recess, Tillis and Coons held closed-door meetings to preview their legislation to stakeholders, including the Pharmaceutical Research and Manufacturers of America, or PhRMA, the brand-name drug industry’s lobbying group. “We regularly engage with members of Congress in both parties to advance practical policy solutions that will lower medicine costs for patients,” said Holly Campbell, a PhRMA spokesperson. Neither proposal has received a public hearing. In the 30 days before Tillis and Coons were named leaders of the revived subcommittee, drug manufacturers gave them $21,000 from their political action committees. In the 30 days following that first hearing, Tillis and Coons received $60,000. Among their donors were PhRMA; the Biotechnology Innovation Organization, the biotech lobbying group; and five of the seven drugmakers whose executives — as Tillis laid out a pharma-friendly agenda for his new subcommittee — were getting chewed out by senators in a different hearing room over patent abuse. Cornyn Goes After Patent Abuse Richard Gonzalez, chief executive of AbbVie Inc., the company known for its top-selling drug, Humira, had spent the morning sitting stone-faced before the Senate Finance Committee as, one after another, senators excoriated him and six other executives of brand-name drug manufacturers over how they price their products. Cornyn brought up AbbVie’s more than 130 patents on Humira. Hadn’t the company blocked its competition? Cornyn asked Gonzalez, who carefully explained how AbbVie’s lawsuit against a generics competitor and subsequent licensing deal was not what he would describe as anti-competitive behavior. “I realize it may not be popular,” Gonzalez said. “But I think it is a reasonable balance.” A minute later, Cornyn turned to Sen. Chuck Grassley (R-Iowa), who, like Cornyn, was also a member of the revived intellectual property subcommittee. This is worth looking into with “our Judiciary Committee authorities as well,” Cornyn said, effectively threatening legislation on patent abuse. The next day, Mylan, one of the largest producers of generic drugs, gave Cornyn $5,000, FEC records show. The company had not donated to Cornyn in years. By midsummer, every drug company that sent an executive to that hearing had given money to Cornyn, including AbbVie. Cornyn, who faces perhaps the most difficult reelection fight of his career this fall, ranks No. 6 among members of Congress in drugmaker PAC contributions last year, KHN’s analysis shows. He received about $104,000. Cornyn has received about $708,500 from drugmakers since 2007, KHN’s database shows. According to OpenSecrets, he has raised more than $17 million for this year’s reelection campaign. Cornyn’s office declined to comment. On May 9, Cornyn and Sen. Richard Blumenthal (D-Conn.) introduced the **Affordable Prescriptions for Patients Act,** which proposed to define two tactics used by drug companies to make it easier for the Federal Trade Commission to **prosecute** them: “**product-hopping**,” when drugmakers withdraw older versions of their drugs from the market to push patients toward newer, more expensive ones, and “**patent-thicketing**,” when drugmakers amass a series of patents to drag out their exclusivity and slow rival generics makers, who must challenge those patents to enter the market once the initial exclusivity ends. **PhRMA opposed the bill.** **The next day, it gave Cornyn $1,000**. Cornyn and Blumenthal’s bill would have been “very tough on the techniques that pharmaceutical companies use to extend patent protections and to keep prices high,” Feldman said. “The **pharmaceutical industry lobbied tooth and nail against it**,” she said. “And **when the bill finally came** out of committee, the strongest provisions — the **patent-thicketing provisions — had been stripped**.” In the months after the bill cleared committee and waited to be taken up by the Senate, Cornyn blamed Senate Democrats for blocking the bill while trying to secure votes on legislation with more direct controls on drug prices. The Senate has not voted on the bill.

#### They choose Infrastructure as backlash – they bill costs Pharma millions – lobbyists can derail the Agenda.

Brennan 8-2 Zachary Brennan 8-2-2021 "How the biopharma industry is helping to pay for the bipartisan infrastructure bill" <https://endpts.com/how-the-biopharma-industry-is-helping-to-pay-for-the-bipartisan-infrastructure-bill/> (Senior Editor at Endpoint News)//Elmer

Senators on Sunday finalized the text of **a massive, bipartisan infrastructure bill** that contains little **that might** **impact the biopharma industry** other than two ways the legislators are planning to pay for the $1.2 trillion deal. On the one hand, senators are **seeking to** further **delay** a **Trump-era Medicare** Part D **rule** **related to drug rebates**, this time until 2026. Senators claim the rule could end up saving about $49 billion (and that number increased this week to $51 billion), but the PBM industry has attacked it as it would remove rebates from a safe harbor that provides protection from federal anti-kickback laws. The **pharmaceutical industry**, however, is in favor of the rule and **opposes this latest delay** as it continues to point its finger at the PBM industry for the rising cost of out-of-pocket expenses. Debra DeShong, EVP of public affairs at PhRMA, said via email: Despite railing against high drug costs on the campaign trail, lawmakers are threatening to gut a rule that would provide patients meaningful relief at the pharmacy. If it is included in the infrastructure package, this proposal will provide health insurers and drug middlemen a windfall and turn Medicare into a piggybank to fund projects that have nothing to do with lowering out-of-pocket costs for medicines. This would be an unconscionable move that robs patients of the prescription drug savings they deserve to help fill potholes and fund other infrastructure projects. The **other provision** **in the infrastructure bill**, which is estimated to save about $3 billion, **would save money for Medicare** **on discarded medications** from large, single-use drug vials. **Manufacturers will be required to pay refunds** for such discarded drugs, and each manufacturer will be subject to periodic audits on the refunds issued. If manufacturers don’t comply, HHS can fine them the refund amount that they would have paid plus 25%. Drugs that will be excluded from these refund payments include radiopharmaceuticals or imaging agents, as well as those that require filtration during the drug preparation process. So do these two pay-fors mean that the pharma industry is getting off without any serious drug pricing reforms? Not quite, according to Alex Lawson, executive director of Social Security Works. Lawson told Endpoints News in an interview that he still fully expects major drug pricing reforms to make their way through Congress between now and the end of September as Sen. Ron Wyden (D-OR) refines his plan, part of an early fall spending package. Senate Majority Leader Chuck Schumer has promised both the infrastructure and spending package will pass before the Senate leaves for August recess. At the very least in terms of drug pricing provisions, expect to see a combination of the Wyden bill he co-wrote with Sen. Chuck Grassley (R-IA) last year, alongside further Medicare negotiations, Lawson said. “Talk is still optimistic,” Lawson said on the prospects of a drug pricing deal getting done, while noting that **pharmaceutical** company **lobbyists** are **swarming Capitol Hill** at the moment because of **not just drug pricing plans**, but **tax provisions** and the **TRIPS waiver** that the biopharma industry is worried about. “These are **challenges to their entire existence**, **so they’re willing to protect them at any cost**,” Lawson said, noting the target for drug pricing is about $500 billion in savings. As the House has jetted off to enjoy what might be an abbreviated summer recess, the Senate has just this week to get its work done, unless its recess is cut short too. “There’s a **real possibility** that **the whole thing blows up** and we get nothing on either side,” Lawson said.

#### Democrat Senators in Big Pharma’s pocket derails the Plan.

Sirota 8-23 David Sirota 8-23-2021 "Dem Obstructionists Are Bankrolled By Pharma And Oil" <https://www.dailyposter.com/dem-obstructionists-are-bankrolled-by-pharma-and-oil/> (an American journalist, columnist at The Guardian, and editor for Jacobin. He is also a political commentator and radio host based in Denver. He is a nationally syndicated newspaper columnist, political spokesperson, and blogger)//Elmer

The **small group of conservative Democratic lawmakers** that has been **threatening to** help Republicans **halt** **Democrats’ budget package** have **raked in more than $3 million from donors in the pharmaceutical** and fossil fuel **industries** that could see reduced profits if the plan passes. As the House reconvenes today to tackle the budget reconciliation process, nine Democrats legislators have been promising to kill their party’s $3.5 trillion budget bill until Congress first passes a separate, smaller infrastructure spending measure, which has garnered some Republican support and which some environmental advocates say would exacerbate the climate crisis. Indeed, an ExxonMobil lobbyist was recently caught on tape saying the company had worked to strip climate measures out of the infrastructure bill. “**We will vote against a budget resolution** if the infrastructure package isn’t brought up first,” Democratic **Rep**. Josh **Gottheimer** **told** the Washington Post this weekend, **though** the American Prospect reported on Sunday that “**several**” of the **legislators** now **indicated they could back down**. **In the narrowly divided House**, **obstructionism from these** conservative Democrats **could decouple the infrastructure** and budget **measures** from one another. Many believe that would kill the latter by letting conservative Democrats in the Senate such as Kyrsten Sinema (D-Ariz.) and Joe Manchin (D-W.Va.) get the infrastructure bill they want without having to provide the votes necessary to enact the much larger and more progressive budget measure. “If we were to pass the bipartisan [infrastructure] bill first, then we lose leverage,” Democratic Rep. Ritchie Torres (NY) told the Wall Street Journal. Along with Gottheimer, the eight other Democrats who have threatened to obstruct the budget bill are Carolyn Bordeaux (Ga.), Ed Case (Hawaii), Jim Costa (Calif.), Henry Cuellar (Texas), Jared Golden (Maine), Vicente Gonzalez (Texas), Kurt Schrader (Ore.), and Filemon Vela (TX). The U.S. Chamber of Commerce — Washington’s most powerful corporate lobby group — has been airing digital ads thanking the nine Democrats for their maneuvers. Eight of the nine Democrats represent congressional districts won by President Joe Biden, who supports the reconciliation package. Big Pharma’s Big Allies The reconciliation bill is still being negotiated, and many Democratic lawmakers — including those in key swing districts — are pushing for it to include long-promised legislation to allow Medicare to use its enormous purchasing power to negotiate lower prices for prescription drugs. The **pharmaceutical industry** has **aggressively lobbied against the initiative**, which the Congressional Budget Office has estimated would save Medicare $345 billion in medicine costs. The nine House Democrats threatening to derail the reconciliation bill have raked in nearly $1.2 million from donors in the pharmaceutical and health products industries, according to data compiled by OpenSecrets. Among them are two of the Democratic Party’s **top recipients of health care industry money**: **Gottheimer** ($228,186) **and Schrader** ($614,830). Schrader’s third biggest career donor is Pfizer’s political action committee, and his former chief of staff is now a registered lobbyist for the Pharmaceutical Researchers and Manufacturers Association, the pharmaceutical industry’s main lobbying group. Both Gottheimer and Schrader signed a letter earlier this year slamming Democratic leaders’ legislation to lower prescription drug prices. Eight out of the nine Democrats threatening to kill the budget bill also declined to sponsor Democrats’ standalone legislation to let Medicare negotiate lower drug prices. In the Senate, Sinema’s renewed threat to vote down a final reconciliation bill came after she received $519,000 from donors in the pharmaceutical and health products industries.

#### Infrastructure reform solves Existential Climate Change – it results in spill-over.

USA Today 7-20 7-20-2021 "Climate change is at 'code red' status for the planet, and inaction is no longer an option" <https://www.usatoday.com/story/opinion/todaysdebate/2021/07/20/climate-change-biden-infrastructure-bill-good-start/7877118002/> //Elmer

**Not long ago**, **climate change** for many Americans **was** like **a distant bell**. News of starving polar bears or melting glaciers was tragic and disturbing, but other worldly. Not any more. **Top climate scientists** from around the world **warned of a "code red for humanity**" in a report issued Monday that says severe, human-caused global warming is become unassailable. Proof of the findings by the United Nations' Intergovernmental Panel on Climate Change is a now a factor of daily life. Due to **intense heat waves and drought**, 107 wildfires – including the largest ever in California – are now raging across the West, consuming 2.3 million acres. Earlier this summer, hundreds of people died in unprecedented triple-digit heat in Oregon, Washington and western Canada, when a "heat dome" of enormous proportions settled over the region for days. Some victims brought by stretcher into crowded hospital wards had body temperatures so high, their nervous systems had shut down. People collapsed trying to make their way to cooling shelters. Heat-trapping greenhouse gases Scientists say the event was almost **certainly made worse and more intransigent by human-caused climate change**. They attribute it to a combination of warming Arctic temperatures and a growing accumulation of heat-trapping greenhouse gases caused by the burning of fossil fuels. The **consequences of** what mankind has done to the atmo**sphere are now inescapable**. Periods of **extreme heat** are projected to **double** in the lower 48 states by 2100. **Heat deaths** are far **outpacing every other form of weather killer** in a 30-year average. A **persistent megadrought** in America's West continues to create tinder-dry conditions that augur another devastating wildfire season. And scientists say **warming oceans** are **fueling** ever **more powerful storms**, evidenced by Elsa and the early arrival of hurricane season this year. Increasingly severe weather is causing an estimated $100 billion in damage to the United States every year. "It is honestly surreal to see your projections manifesting themselves in real time, with all the suffering that accompanies them. It is heartbreaking," said climate scientist Katharine Hayhoe. **Rising seas** from global warming Investigators are still trying to determine what led to the collapse of a Miami-area condominium that left more than 100 dead or missing. But one concerning factor is the corrosive effect on reinforced steel structures of encroaching saltwater, made worse in Florida by a foot of rising seas from global warming since the 1900s. The clock is ticking for planet Earth. While the U.N. report concludes some level of severe climate change is now unavoidable, there is still a window of time when far more catastrophic events can be mitigated. But mankind must act soon to curb the release of heat-trapping gases. Global **temperature** has **risen** nearly **2 degrees** Fahrenheit since the pre-industrial era of the late 19th century. Scientists warn that in a decade, it could surpass a **2.7**-degree increase. That's **enough** warming **to cause catastrophic climate changes**. After a brief decline in global greenhouse gas emissions during the pandemic, pollution is on the rise. Years that could have been devoted to addressing the crisis were wasted during a feckless period of inaction by the Trump administration. Congress must act Joe Biden won the presidency promising broad new policies to cut America's greenhouse gas emissions. But Congress needs to act on those ideas this year. Democrats cannot risk losing narrow control of one or both chambers of Congress in the 2022 elections to a Republican Party too long resistant to meaningful action on the climate. So what's at issue? A trillion dollar **infrastructure bill** negotiated between Biden and a group of centrist senators (including 10 Republicans) is a start. In addition to repairing bridges, roads and rails, it would **improve access** by the nation's power infrastructure **to renewable energy sources,** **cap millions of abandoned oil and gas wells spewing greenhouse gases**, **and harden structures against climate change**. It also **offers tax credits for** the **purchase of electric vehicles** and funds the construction of charging stations. (**The nation's largest source of climate pollution are gas-powered vehicles**.) Senate approval could come very soon. Much **more is needed** if the nation is going to reach Biden's necessary goal of cutting U.S. climate pollution in half from 2005 levels by 2030. His ideas worth considering include a federal clean electricity standard for utilities, federal investments and tax credits to promote renewable energy, and tens of billions of dollars in clean energy research and development, including into ways of extracting greenhouse gases from the skies. Another idea worth considering is a fully refundable carbon tax. **The vehicle** for these additional proposals **would be a second infrastructure bill**. And if Republicans balk at the cost of such vital investment, Biden is rightly proposing to pass this package through a process known as budget reconciliation, which allows bills to clear the Senate with a simple majority vote. These are drastic legislative steps. But drastic times call for them. And when Biden attends a U.N. climate conference in November, he can use American progress on climate change as a mean of persuading others to follow our lead. Further delay is not an option.

### A2 Monopolies

#### 1] Big Pharma patent monopolies have failed – their Thailand example proves – the patents were indefinitely banned.

Reuters 19 Staff. “Thailand to Revoke Foreign Patent Requests on Marijuana.” Reuters, Thomson Reuters, 28 Jan. 2019, www.reuters.com/article/us-thailand-cannabis/thailand-to-revoke-foreign-patent-requests-on-marijuana-idUSKCN1PM1FU. //sid

Thailand on Monday effectively revoked all foreign patent requests for the use of marijuana, after fears foreign firms would dominate a market thrown open last month when the government approved the drug for medical use and research. The junta-appointed parliament in Thailand, a country which until the 1930s had a tradition of using marijuana to relieve pain and fatigue, voted to amend the Narcotic Act of 1979 in December in what it described as “a New Year’s gift to the Thai people”. While countries from Colombia to Canada have legalized marijuana for medical or even recreational use, the drug remains illegal and taboo across much of Southeast Asia. But in Thailand, the main controversy with the legalization involved patent requests by two foreign firms, British giant GW Pharmaceuticals and Japan’s Otsuka Pharmaceutical, filed before the change to the law. Thai civil society groups and researchers feared domination by foreign firms could make it harder for Thai patients to get access to medicines and for Thai researchers to get marijuana extracts. ADVERTISEMENT The military government issued a special executive order on Monday enabling the Department of Intellectual Property to revoke all pending patents that involve cannabis, or remove marijuana from those patents, within 90 days. “The pending patent requests are illegal,” Somchai Sawangkarn, a member of parliament responsible for amending the Narcotic Act told Reuters. “This NCPO order is beneficial for Thai people across the country because it prevents a monopolistic contract,” he said referring to the junta by its official name, the National Council for Peace and Order. Reuters did not have contact details for spokesmen for either of the two foreign firms and the companies did not immediately respond to emailed requests for comment.

#### 2] Barnett has no internal to innovation in medical marijuana – it’s specific to farmers not being able to grow weed to sell, not medical research.

#### 3] No impact to marijuana innovation – we don’t need new types of weed. This doesn’t turn our innovation arguments because our link is that reduction in IP chills innovation for all medicine due to fear of spillover

#### 4] No Uniqueness – Biden wont’ legalize Marijuana at a federal level.

Kane 21 Kris Kane 3-26-2021 "Enjoy Marijuana? Joe Biden Doesn’t Care About You" <https://www.forbes.com/sites/kriskrane/2021/03/26/enjoy-marijuana-joe-biden-doesnt-care-about-you/?sh=4dec240e651d> (Senior Contributor at Forbes on the Weed Industry)//Elmer

This pattern of legalization supporters backpedaling to appease Joe Biden dates back to the campaign itself, where **Biden’s** **campaign** seemingly **sought to roll back years of progress** made by the Democratic Party since President Obama left office. In 2016 the Democratic Party platform included language calling for a “pathway” to legalization. Yet in 2020 **Biden’s campaign rejected** such language, removing any mentions of **meaningful cannabis policy reform** from the platform. When supporters tried to add a legalization plank back into the platform, even co-chair of the Congressional Cannabis Caucus Rep. Barbara Lee (D-CA) voted against it, presumably not to run afoul of the wishes of her party’s standard bearer despite her own strong support for legalization. Of course, none of this should be especially surprising. Joe **Biden’s record on marijuana**, drugs and crime **is** arguably **the worst** and most punitive of any Democratic politician of the past 50 years not named Diane Feinstein. He was an author and **champion** of the 1994 Crime Bill that is largely responsible **for** the current **mass incarceration** crisis in this country, and was the lead sponsor of the RAVE Act, one of the last pieces of draconian drug policy legislation passed by Congress that punished concert venue owners and promoters if drugs were used or sold at their events, even if they had no knowledge or involvement in the drug related activity. This is a politician who in 1974 said, “I don’t think marijuana should be legalized,” repeating that sentiment **as recently as 2010** when he **stated** “**I think legalization is a mistake**.” As Vice President in 2012 Biden had ““serious doubts that decriminalization would have a major impact on the earnings of violent criminal organizations,” and that “on examination you realize there are more problems with legalization than with non-legalization.”

### A2 Biodiversity

#### 1] No Marijuana key to Bio-Diversity Card – their evidence is about monocultures within Marijuana but no spill-over.

#### 2] Agriculture Patents make Bio-D low now

1AC Barnett 20 Hailey A. Barnett [J.D. candidate 2020, Tulane University Law School; B.A. 2017, Communication, cum laude, Texas A&M University.], "High Risk, High Reward: Patent Law's Effects on the Medical Marijuana Industry," Tulane Journal of Technology and Intellectual Property 22 (2020): 125-164 <https://heinonline.org/HOL/LandingPage?handle=hein.journals/tuljtip22&div=8&id=&page=> SM

A. Biodiversity Implications for Cannabis Strain Patents Biodiversity, or biological diversity, is an ongoing controversy in the marijuana patent industry. Like comprehensive research on the benefits and drawbacks of medical marijuana, "empirical analysis on biodiversity in the patent system is limited."2 2 2 Biodiversity is a broad term but is generally defined as "biological diversity in an environment as indicated by numbers of different species of plants and animals." 23 Increasingly, however, countries and companies are asserting IP rights in native flora, 224 impacting global biodiversity. "Historical documents from around the world, some dating as far back as 2900 B.C., tell us that cannabis has lived alongside humans for thousands of years, cultivated for food, fiber, and fodder, as well as for religious and medicinal purposes." 2 5 The fear is that without a wide variety of cannabis strains available for breeding and growing, production and processing of the plant will inevitably consolidate into the hands of large conglomerates.22 6 The United States and Thailand are signatories to the Convention on Biological Diversity (Biodiversity Convention), a multilateral treaty committed to sustainable development. The Biodiversity Convention's goals include "conserving biological diversity, promoting the sustainable use of its components, and the fair use and equitable sharing of benefits from biological resources."228 The Biodiversity Convention requires signatories to enforce regulations on plant patent applications and mandates that new patent applications include the plant's genetic resources and evidence of local use if they seek to patent the plant in a certain country. This is the chief reason behind the Biodiversity Sustainable Agriculture Food Sovereignty Action Thailand's (Biothai) call for careful scrutiny of recently filed foreign cannabis patents in the country, as discussed in greater detail in the next Section. Since medical marijuana is now legal for use and manufacture in Thailand, the mere implication that fabled Thai marijuana strains, such as "Northern Lights," could be available on the global market has generated 23 much buzz. 1 Like Cuban cigars or French champagne, Thai marijuana is known for its potency and quality.232 Thailand's marijuana is apure sativa landrace strain, meaning it is a local strain of cannabis that has adapted to Thailand's native environment and conditions over time. Environment plays a key role in the THC, CBD, and terpene quality and quantity and is part of what makes landrace strains so unique. For example, the marijuana plants and seeds that are indigenous to the tropical jungles of Thailand are bred to preserve their naturally occurring high THC levels.235 As more cannabis strain patents are granted worldwide, it is possible that growers will be increasingly dependent on seed makers that hold patents on certain types of seeds and methods used to produce them. As a result, growers will be subject to agreements and royalties and will be charged licensing fees for use of the seeds. A healthy number and variety 236 of available cultivars are vital for advancing cannabis legalization and the industry’s continued growth. From an **agricultural perspective**, the **patent system encourages** a consolidation and **reduction of variety** in order to enhance and maximize profits. This can be **seen in today's staple crops**, such as com, soy, and wheat, where fewer cultivars exist than they did decades ago.23 9 Other crops globally consumed today, such as fruits 240 and vegetables, are likely grown from patented varieties or cultivars. **As a result**, **agricultural biodiversity has diminished** due to the introduction and consolidation of genetically modified, patented varieties, and it is highly likely the cannabis industry could see a similar fate.24 1 Cannabis biodiversity will be threatened if there are fewer available cultivars and, thus, fewer strain options.2 42 Fewer available strains could also lead to limited consumer experiences and patient treatment options. This notion, coupled with already limited clinical and scientific research, could significantly throttle advances in medical marijuana availability and use.2 43 The corporatization of the industry, thanks to patent law, could see smaller growers and businesses merging into giant conglomerates, with 2 the profits being held in the hands of a very few. 4 In short, the "winners" of the cannabis patent wars will dominate the industry post-prohibition.2 45 Some argue that expanding strain patents could have the opposite effect and allow researchers and physicians to "correctly identifty], dos[e], and perhaps even personalize prescriptions for particular strains in the future" to treat specific ailments.24 6 Patents are a hallmark of innovation, and with wide access to more and better cannabis strains, there could be innovation advances in the industry as a whole.2 47 However, the reality is that cannabis patents are likely to be held by large corporations, given what we have seen before with the United States government and the FDA's involvement.24 8 Both medical marijuana patients and recreational marijuana users are strain-driven. While the current cannabis landscape is rich with hundreds of different varieties, strain patents could lead to a "locked genetic landscape where innovation becomes rare and costly."2 4 9 Further, a monopoly on the local strains of one country could have disastrous effects on that country's biodiversity and its rights to that biodiversity.2 50

### A2 Plan/Solvency

#### 1] 1AC Kellner undermines aff solvency – it concedes that shortening patent windows will be compensated by increasing profitability, but the aff scenario is reliant on increasing access by lowering prices

#### 2] The card is not saying that delaying enforcement causes innovation – it just incentivizes finding legal loopholes or shutting down the businesses.

Recut Kellner 21 “Mitigating the Effects of Intellectual Property Colonialism on Budding Cannabis Markets” Hughie Kellner [Hughie Kellner came from the small farm town of Uvalde, Texas and received a bachelor’s degree in Physics from the University of Texas at Austin. Upon graduation from the Indiana University Maurer School of Law, Hughie will deploy his physics degree while prosecuting patents in the Frankfurt am Main, Germany office of Leydig, Voit, & Mayer. After Hughie’s first year at Maurer, he worked for a law firm in Thailand as a Stewart Fellow.] Indiana Journal of Global Legal Studies Vol. 28 #1 (Winter 2021) <https://www.repository.law.indiana.edu/ijgls/vol28/iss1/9/> SM //rehighlighted sid

Third, if actors are utilizing technology under such currently unenforceable but soon-to-be enforceable patents, they will have clear notice when they must cease such infringing action, and either close their doors or develop a compliant way of doing business. Thus, actors in the market can establish themselves and then innovate their own means of carrying out business or license it from those who do. This is the exact action patents are meant to incentivize, innovating new solutions to problems, even if the problem here is merely a legal one.110

### A2 Cartels

#### Mexico stable now

Stott 6-13 Michael Stott 6-13-2021 "Why López **Obrador’s Mexico is stable** **in protest-prone Latin America**" <https://www.ft.com/content/552951be-7e8f-4fbc-a85d-7814cc519265> (Michael Stott is the Latin America editor of the Financial Times based in London. He was previously in Tokyo as managing editor of the Nikkei Asian Review, a sister publication covering Asian business and politics. Prior to that he was the FT's UK news editor.)//Elmer

As Latin America’s presidents battle a pandemic that has hit their people and economies harder than any other region, something uniting them is their unpopularity. Chile’s Sebastián Piñera and Colombia’s Iván Duque have approval ratings of roughly 18 per cent; Brazil’s Jair Bolsonaro’s rating stands at 24 per cent and Argentina’s Alberto Fernández is on 32 per cent, according to recent surveys. Peru has gone through four presidents in a year. **Social unrest is sweeping the region**. Long but ineffective lockdowns, scandals over early vaccinations for the well-connected, overloaded public health services and inadequate support for the most vulnerable have fuelled popular anger. Even before the pandemic, most Latin Americans had little faith in their governments. “In May, 80 per cent of Latin Americans said their country was on the wrong track,” said Jean-Christophe Salles, Latin America chief of the pollster Ipsos. “In this context, Latin American presidents appear with a very low level of approval”. **The exception**, he added, **was Mexico**. Nearing the midpoint of his six-year term on Sunday last week, President Andrés Manuel López **Obrador** and his allies **won a string of state governorships and** a fresh **congressional majority** — victories his peers in the region could only dream about. As he revelled in his electoral successes at a news conference on Tuesday, López Obrador heard his ministers announce that almost **one in three of Mexico’s adult population had been vaccinated and schools were reopening**. “As we faced the pandemic and there was an economic crisis . . . what did they ask me to do?” the president said, referring to Mexico’s elite. “To rescue those at the top — and we opted to support from the bottom up, because that is how it should be, for the sake of humanism, social justice and security”.

#### Decreasing cartel revenue causes cartel lash-out and diversification.

Murray et al 11 Chad Murray et al 11, Ashlee Jackson Amanda C. Miralrío, Nicolas Eiden Elliott School of International Affairs/Inter-American Drug Abuse Control Commission: Capstone Report April 26, 2011 “Mexican Drug Trafficking Organizations and Marijuana: The Potential Effects of U.S. Legalization” //re-cut by Elmer

Mexican DTOs would likely branch into other avenues of crime. Perhaps the most obvious short-term effect of marijuana legalization is that this would rob the Sinaloa and Tijuana cartels of up to half of their total revenue.117 The economic strain placed on the Sinaloa cartel and Tijuana cartel may not necessarily help Mexico in the short term. The short-term effects of **legalization could** very well create chaos for Mexico. “The cartels compensate for their loss of drug revenue by branching out into other criminal activities--kidnapping, murder-for-hire, contraband, illegal ¶ 29 ¶ immigrant smuggling, extortion, theft of oil and other items, loan-sharking, prostitution, selling protection, etc.”118 This means that if the social and economic environment remains the same then “they are not going to return to the licit world.”119 If the Sinaloa cartel and the Tijuana cartel turn towards activities like kidnapping, human trafficking and extortion, it could lead to a spike in violence that would prove to be destabilizing in those organizations‟ areas of operation. ¶  *The Sinaloa cartel and Tijuana cartel might splinter into smaller groups.* In addition, the loss of more than 40% of revenue would probably force them to downsize their operations. Like any large business going through downsizing, employees will likely be shed first in order to maintain profitability.120 These former DTO operatives will likely not return to earning a legitimate income, but rather will independently find new revenue sources in a manner similar to their employers. Therefore it is possible that the legalization of marijuana in the United States could cause territories currently under the control of the Sinaloa cartel and Tijuana cartel to become more violent than they are today. This is troubling, as Sinaloa, Baja California, Sonora, and Chihuahua states are already among the most violent areas of Mexico.121

#### Expanding legalized weed doesn’t collapse cartels- they are diversified

Killebrew 11 (Robert. June. Colonel Robert Killebrew, usa (Ret.), is a senior Fellow at the Center for a New American security. “Criminal Insurgency in the Americas and Beyond” Prism. Published by the Center for Complex Operations. Vol 2. No. 3) 5/30/14 RK

No subject is liable to be more controversial than the question of whether to legalize drugs in the United States. The often repeated belief that legalization would defeat the cartels breaks down on the data. As stated previously, the drug cartels have reached a stage of development that would ensure their continued operation during any transition to legalized drugs on the part of the United States and beyond. It is highly unlikely that the legalization of drugs— some or even all drugs—in the United States would end the threat from these organizations. The cartels and other drug trafficking organizations are multifaceted criminal enterprises dedicated to making profits from any activity that brings in money. Although the majority of their income comes from illicit drugs, they also engage in other violent and white-collar crimes. The assorted cartels—the Mexican cartels, the FARC, and other organizations—are a new kind of transnational criminal organization, taking advantage of the global black economy not only to move drugs, but also to support human trafficking, prostitution, identity theft, arms trading, illicit financial transactions, and so forth. They have powerful state sponsors in a global network of illicit commerce. For the United States to turn to legalization as a primary strategy against the cartels would be a shot in the dark, particularly when other strategies to decrease drug use have been effective.

### AT China/Russia Nuke War

#### Missing IL to cannabis farmers having access to federal water and water scarcity. Assign this scenario little to no weight because it just misses multiple steps and they haven’t established uniqueness

#### Close military relations and energy cooperation prevent conflict escalation

Klein and Westphal 16 – Dr. Margarete Klein, Deputy Head of Eastern Europe and Eurasia Division at Stiftung Wissenschaft und Politik German Institute for International and Security Affairs, Dr. Kirsten Westphal, Senior Associate in SWP’s Global Issues Division, 2016 (“Russia: Turn to China?,” *SWP Berlin*, https://www.swp-berlin.org/fileadmin/contents/products/comments/2016C07\_kle\_wep.pdf)

**Russia’s turn to China represents more than mere symbolism**. In recent years it has **significantly gained in substance in almost all areas**. **China** has become **the country outside the post-Soviet space with which Russia maintains its closest military relations**. **Intensified exercise activities** will make it easier for them to take joint action in future, especially in Central Asia. In cybersecurity, too, Beijing and Moscow are significantly **expanding their coordination.** Yet Western worries about a formal Russian-Chinese military alliance are exaggerated. Neither side is seriously interested in such a move, which would restrict their own freedom of action. Cooperation in the field of energy is also currently being expanded. This allows both sides to **diversify** their **trade relations** and Russia to gain **market share in China**.