# 1AC

## Off

### 1NC – T

#### Interpretation—the aff may not specify intellectual property protections

#### Bare plurals imply a generic “rules reading” in the context of moral statements

Cohen 1 — (Ariel Cohen, Professor of Linguistics @ Ben-Gurion University of the Negev, PhD Computational Linguistics from Carnegie Mellon University, “On the Generic Use of Indefinite Singulars”. Journal of Semantics 18: 183-209, Oxford University Press, 2001, accessed 12-7-20, HKR-AM) \*\*BP = bare plurals

According to the rules and regulations view, on the other hand, generic sentences do not get their truth or falsity as a consequence of properties of individual instances. Instead, generic sentences are evaluated with regard to rules and regulations, which are basic, irreducible entities in the world. Each generic sentence denotes a rule; if the rule is in effect, in some sense (different theories suggest different characterizations of what it means for a rule to be in effect), the sentence is true, otherwise it is false. The rule may be physical, biological, social, moral, etc. The paradigmatic cases for which this view seems readily applicable are sentences that refer to conventions, i.e. man-made, explicit rules and regulations, such as the following example (Carlson 1995: 225):

(40) Bishops move diagonally.

Carlson describes the two approaches as a dichotomy: one has to choose one or the other, but not both. One way to decide which approach to choose is to consider a case where the behavior of observed instances conflicts with an explicit rule. Indeed, Carlson discusses just such a case. He describes a supermarket where bananas sell for $0.49/lb, so that (41a) is true. One day, the manager decides to raise the price to $1.00/lb. Immediately after the price has changed, claims Carlson, sentence (41a) becomes false and sentence (41b) becomes true, although the overwhelming majority of sold bananas were sold for $0.49/lb.

(41) a. Bananas sell for $0.49/lb.

b. Bananas sell for $1.00/lb.

Consequently, Carlson reaches the conclusion that the rules and regulations approach is the correct one, whereas the inductivist view is wrong.

While I share Carlson’s judgements, I do not accept the conclusion he draws from them. Suppose the price has, indeed, changed, but the supermarket employs incompetent cashiers who consistently use the old price by mistake, so that customers are still charged $0.49/lb. In this case, I think there is a reading of (41a) which is true, and a reading of (41b) which is false. These readings are more salient if the sentence is modified by expressions such as actually or in fact:

(42) a. Bananas actually sell for $0.49/lb.

b. In fact, bananas sell for $1.00/lb.

BP generics, I claim, are ambiguous: on one reading they express a descriptive generalization, stating the way things are. Under the other reading, they carry a normative force, and require that things be a certain way. When they are used in the former sense, they should be analysed by some sort of inductivist account; when they are used in the latter sense, they ought to be analysed as referring to a rule or a regulation. The respective logical forms of the two readings are different; whereas the former reading involves, in some form or another, quantification, the latter has a simple predicate-argument structure: the argument is the rule or regulation, and the predicate holds of it just in case the rule is ‘in effect’.

#### Rules readings are always generalized – specific instances are not consistent. Cohen 01

Ariel Cohen (Ben-Gurion University of the Negev), “On the Generic Use of Indefinite Singulars,” Journal of Semantics 18:3, 2001 https://core.ac.uk/download/pdf/188590876.pdf

In general, as, again, already noted by Aristotle, rules and definitions are not relativized to particular individuals; it is rarely the case that a specific individual¶ forms part of the description of a general rule.¶ Even DPs of the form a certain X or a particular X, which usually receive¶ a wide scope interpretation, cannot, in general, receive such an interpretation in the context of a rule or a definition. This holds of definitions in general, not¶ only of definitions with an IS subject. The following examples from the Cobuild¶ dictionary illustrate this point:¶ (74) a. A fanatic is a person who is very enthusiastic about a particular¶ activity, sport, or way of life.¶ b. Something that is record-breaking is better than the previous¶ record for a particular performance or achievement.¶ c. When a computer outputs something it sorts and produces information as the result of a particular program or operation.¶ d. If something sheers in a particular direction, it suddenly changes¶ direction, for example to avoid hitting something.

#### That outweighs—only our evidence speaks to how bare plurals are interpreted in the context of normative statements like the resolution. This means throw out aff counter-interpretations that are purely descriptive

#### Violation—they specified one and done patents—

#### Vote neg:

#### 1] Precision – if we win definitions the aff is not topical. The resolution is the only predictable stasis point for dividing ground—any deviation justifies the aff arbitrarily jettisoning words in the resolution at their whim which decks negative ground and preparation because the aff is no longer bounded by the resolution.

**2] Limits: unlimited topics incentivize obscure affs that negs won’t have prep on – limits are key to reciprocal prep burden– also means there is no universal DA to spec affs**

**3] TVA solves – read the aff as advantage – most authors advocate for a change in intellectual property in general**

**4] No PICs offense – potential neg abuse doesn’t justify aff abuse because that would permit infinite 1AC abuse**

### 1NC – CP

**CP: The member nations of the World Trade Organization should integrate centralized medical records and genetic information with machine learning technology and make data commercially available for biotechnology and pharmaceutical companies. The member nations of the World Trade Organization should offer financial rewards for the production of innovative new drugs in response to public health needs.**

#### Combining centralized records with genetic info shifts research to a genotype first approach---both are key for synching gene variants with their medical effects. Excluding people from coverage ensures bottlenecks that undermine research.

Broad 14. (The Eli and Edythe L. Broad Institute of MIT and Harvard, often referred to as the Broad Institute, is a biomedical and genomic research center located in Cambridge, Massachusetts. Innovative “genotype first” approach uncovers protective factor for heart disease. June 31, 2014.https://www.broadinstitute.org/news/innovative-“genotype-first”-approach-uncovers-protective-factor-heart-disease)

**Extensive sequencing of DNA from thousands of individuals** in Finland has **unearthed scores of mutations that** destroy gene function **and are found at unusually high frequencies**. Among these are two mutations in a gene called LPA that may reduce a person’s risk of heart disease. **These findings are an exciting** proof-of-concept **for a new “**genotype first**” approach to identifying** rare genetic variants **associated with, or protecting from, disease followed by** extensive medical review **of carriers**. The new study by researchers from the Broad Institute, Massachusetts General Hospital (MGH), the University of Helsinki, and an international team of collaborators appears in a paper published online July 31 in PLOS Genetics. The **researchers** studied exomes — the portions of the genome that correspond to protein-coding genes — from 3,000 Finns and compared them to those of 3,000 non-Finnish Europeans. They identified 83 gene-deactivating variants that were at least twice as prevalent in Finns and went on to study these variants in over 35,000 Finns. Recent examples in heart disease, HIV, type 2 diabetes and Crohn’s disease have demonstrated that such mutations – known as “loss-of-function” mutations – in some cases protect from, rather than cause, disease and thereby **suggest** new paths **toward** therapeutics. **Geneticists have known that** Mendelian, **recessive genetic diseases** – such as Tay-Sachs or cystic fibrosis that **are caused by a single, mutated gene** – are **more common in** isolated populations **because of a phenomenon known as “**bottlenecking**.”** When a small population is isolated for tens to hundreds of generations, the population’s genetic diversity becomes restricted, and occasional rare genetic variations can by chance become much more common. While this has long been recognized as the source of the unique rare disease patterns seen in isolated populations, this paper demonstrates that the same principles can help researchers identify rare, loss-of-function variants in genome-wide association studies on these isolated populations. In the current study, researchers chose to study modern Finns – a population that descended from a well-documented bottleneck that occurred around 4,000 years ago. Comparing Finns with their non-Finnish European counterparts gave the researchers strong, empirical data. The LPA gene encodes Lipoprotein(a), a type of lipoprotein, first identified in 1963 and a known risk factor for heart disease. The variants described in this paper reduced levels of LPA gene expression causing lower levels of Lipoprotein(a) in the blood. The research team examined Finnish medical records and found that the loss-of-function variants were not associated with other health problems, making blocking LPA expression a potentially exciting therapeutic approach. **The availability of** centralized medical records **available in Finland enabled the researchers to** shift the paradigm **of** medical genetics **to a “genotype first” approach**. “**This new approach could significantly change how researchers analyze rare variants for complex diseases**. **It gives us a** window **into the** genetics of complex diseases **that we haven’t had before**,” said co-senior author Mark Daly, co-director of the Program in Medical and Population Genetics at the Broad Institute and chief of the Analytic and Translational Genetics Unit for the Center for Human Genetic Research at MGH. “By combining the information from detailed medical records with the information contained in the genomes of a bottlenecked population, we’re uncovering rare variants that contribute to complex diseases.” Heart disease is a leading killer globally. The World Health Organization reports that cardiovascular disease was responsible for 30 percent of all global deaths, or 17.3 million people in 2008. Therapeutics able to specifically address this risk by targeting LPA could have a global impact on medical outcomes. This work highlights the potential for using rare variant analysis in isolated populations to study complex diseases, an approach that had previously been largely limited to Mendelian traits. **The approach can now be applied to other complex diseases that have many contributing genetic factors.** “We’ve illustrated the validity of this approach by identifying rare, loss-of-function variants with promising therapeutic potential for the treatment of heart disease, but **this work also represents a** reproducible approachthat can be used to increase our understanding of other complex diseases as well,” said co-senior author Aarno Palotie (Broad Institute, Massachusetts General Hospital, Harvard Medical School, Institute for Molecular Medicine Finland FIMM, University of Helsinki).

#### Only data integration solves pharma collapse---the counterplan saves the industry

**Shaywit**[**z**](https://www.forbes.com/sites/davidshaywitz/)**13** (David, Medicine reporter for Forbes, “What's Holding Back Cures? Our Collective Ignorance (And No, Not A Pharma Conspiracy)” <https://www.forbes.com/sites/davidshaywitz/2013/05/10/whats-holding-back-cures-our-collective-ignorance-and-no-not-a-pharma-conspiracy/#eda1100236fd>)

The unfortunate truth is that drug companies really want to cure disease, but rarely know how. [Medical science simply isn’t up to the challenge](http://www.forbes.com/sites/davidshaywitz/2011/12/02/biopharmas-dirty-secret-revealed-science-is-fragile-forecasting-is-unreliable-now-deal-with-it-2/). Most diseases aren’t well enough understood to enable the rational development of truly transformative treatments. When high-profile pharma studies fail – such as the slew of recent Phase 3 Alzheimer’s Disease trials – it’s fashionable to characterize them as yet another industry failure. There’s some truth to this: the proximal cause may well be a poor decision to continue the development of a questionable drug. But the root cause is likely insufficient understanding of disease pathophysiology. We should also be careful about dismissing the value of incremental advances– a reflex I know I still have, although I’ve [recognized](http://www.nytimes.com/2002/07/16/health/improved-drug-regimens-help-patients-take-their-medicine.html) the value of seemingly small tweaks from the time I was a resident. Even today, when I critique (as derivative) formulation plays like liquid Ritalin, I’m glad to be [reminded](https://twitter.com/kevintoshio/status/312306291261448192) of the kids who stand to benefit from just such a medication. What’s Next? As the healthcare system looks more critically at value – demanding more evidence of effectiveness from providers and products alike – drug companies will be faced with two options. The best choice, of course, would be to figure out how to come up with truly revolutionary treatments. Perhaps unexpected insights will emerge from big data and the [integration](http://www.forbes.com/sites/davidshaywitz/2012/12/30/turning-information-into-impact-digital-healths-long-road-ahead/) of phenotypic and genotypic information, in the [framework of system biology](http://www.nature.com/nrd/journal/v8/n4/abs/nrd2826.html); maybe a new therapeutic modality will arrive on the scene. It’s possible intensified [collaboration](http://www.forbes.com/sites/davidshaywitz/2012/03/29/youre-welcome-the-vital-role-companies-play-in-pressure-testing-academic-medical-research/) between academic and industry researchers will eventually yield something useful, or that [open-data approaches](http://www.sagebase.org/philosophy/) (as championed by organizations like [Sage Bionetworks](http://www.sagebase.org/)[disclosure: I served as a founding advisor]) will achieve critical mass, and deliver impactful insights. But unless something substantial changes, progress is likely to remain slow and stochastic, and truly game-changing novel therapeutics will continue to be the exceptions rather than the rule. Given the ongoing challenges of creating transformative medications, there’s likely to be intensified focus on capturing, in a more granular fashion, the benefits of incrementally improved drugs; such assessments will not be a “nice to have” but a “must have,” table stakes for consideration by payors, and (to the extent these measures are used to demonstrate efficacy) regulators as well. I also suspect pharmas will increasingly look to offer “solutions” (e.g. associated app or access to an online community) not just pills, to deliver value, though it’s unclear whether such approaches will either prove effective or represent an attractive value proportion for the relevant stakeholders.

### 1NC – DA

#### Drug price reform coming now – fight is ramping up but Biden has the opportunity

Cancryn 9/9 Cancryn, Adam. Adam Cancryn is a health care reporter for POLITICO Pro, graduate of Washington & Lee University."Biden admin backs direct government drug price negotiations." POLITICO, 9 Sept. 2021, www.politico.com/news/2021/09/09/biden-drug-price-negotiations-510828.

A new Biden administration plan aimed at lowering prescription drug prices endorses giving the government sweeping power to directly negotiate the cost of medicines, calling it one of the key steps Congress could take to make drugs “more affordable and equitable” for all Americans.

The plan — developed by the Department of Health and Human Services and released on Thursday — largely backs Democrats’ ongoing efforts to lower drug prices as part of a $3.5 trillion reconciliation proposal, and mirrors a range of legislative options that both House and Senate lawmakers have floated in recent years.

Those include capping out-of-pocket costs in Medicare Part D, limiting how quickly pharmaceutical companies can hike prices on existing drugs and banning so-called pay-for-delay agreements aimed at blocking generic competition to brand-name drugs.

But the HHS report’s embrace of broad price negotiation is the administration’s latest signal that it’s siding with progressives who have pushed for a far more aggressive approach to slashing pharmaceutical costs.

Under the HHS plan, the government would directly negotiate prices for drugs in Medicare parts B and D, with those prices also being available to private insurance plans and any employers who want to participate.

House Democrats passed a similar provision as part of a major drug pricing bill in 2019. But it never made it into law, and some in the party’s centrist wing have since vowed to oppose drug price negotiation.

Notably, the plan stops short of supporting the use of “march-in rights” that progressives argue empower the government to pull patent rights from a drug that is deemed too expensive. Sen. Elizabeth Warren has long advocated for the approach, and urged HHS to utilize it in an August letter with Sen. Amy Klobuchar and Rep. Lloyd Doggett.

“The Biden Administration has the opportunity to lower the prices of key drugs using these authorities,” the lawmakers wrote to HHS Secretary Xavier Becerra.

The department in its report acknowledged that it has been petitioned to use march-in rights, saying only that it would give them “due consideration.”

The HHS plan also lays out a series of administration actions that the department could take to fulfill what it identified as three “guiding principles:” making drugs more affordable, improving competition within the industry and encouraging innovation.

Those options included testing value-based payment models and boosting cost-sharing support to certain low-income Medicare beneficiaries. It also suggests that improved data collection from insurers and pharmacy benefit managers could give the government better insight into drug pricing, as well as rebates and out-of-pocket spending on prescription medications.

HHS developed the report in response to an executive order that President Joe Biden issued earlier this year aimed at improving competition across a range of industries, including the drug sector.

#### Biden’s PC is key to wrangle democrats and counter pharma lobbying

Johnson 8/12 Johnson, Jake, writer for Alternet . "Joe Biden throws support behind bold reforms to slash drug prices." Alternet, August 12, 2021, www.alternet.org/2021/08/biden-medicare-negotiate-prices.

The powerful industry's public and behind-closed-doors lobbying push is likely to grow more aggressive as congressional Democrats' reconciliation package begins to take shape.

On Wednesday, the Senate approved a $3.5 trillion budget resolution setting the boundaries for the package, and the House is expected to take up and pass the resolution later this month. Once both chambers have passed an identical resolution, congressional committees will begin crafting legislative text.

"We will save taxpayers hundreds of billions by requiring that Medicare negotiate prescription drug prices with the pharmaceutical industry and we will use those savings to expand Medicare by covering the dental care, hearing aids, and eyeglasses that seniors desperately need," Sen. Bernie Sanders (I-Vt.), the chief architect of the budget resolution, said in a statement earlier this week.

But it's far from certain that a Medicare negotiation provision will survive the process of developing the final reconciliation bill, particularly given that a number of Big Pharma-backed House Democrats—including Reps. Scott Peters (D-Calif.) and Jake Auchincloss (D-Mass.)—have recently voiced skepticism about the proposal.

With Republicans unanimously opposed to the reconciliation package, Democrats can afford just a handful of defections in the House and none in the Senate.

Larry Levitt, executive vice president for health policy at the Kaiser Family Foundation, told HuffPost on Thursday that "it's not yet clear how the Democratic leadership will corral the necessary votes for a drug pricing plan, but there's no sign they're backing off."

"An epic battle with the pharmaceutical industry is coming," said Levitt.

In a series of tweets responding to Biden's prescription drug agenda, Levitt wrote that while the president's "proposal doesn't break new policy ground," it "is significant in that he is now using his political capital to push for congressional action at a pivotal moment in the debate."

#### WTO waiver takes time, energy, and political capital away from domestic legislation – big pharma and EU allies

Bhadrakumar 5/9 M K Bhadrakumar is a former Indian diplomat. "Biden’s talk of vaccine IP waiver is political theater." Asia Times, May 9, 2021, asiatimes.com/2021/05/bidens-talk-of-vaccine-ip-waiver-is-political-theater.

On the other hand, Biden, whose political life of half a century was largely spent in the US Congress, is well aware of the awesome clout of the pharmaceutical companies in American politics. From that lobby’s perspective, the patent waiver “amounts to the expropriation of the property of the pharmaceutical companies whose innovation and financial investments made the development of Covid-19 vaccines possible in the first place,” as a senior scholar at the Johns Hopkins Center for Health Security puts it. The US pharmaceutical industry and congressional Republicans have already gone on the offensive blasting Biden’s announcement, saying it undermines incentives for American innovation. Besides, the argument goes, even with the patent waiver, vaccine manufacturing is a complex process and is not like simply flipping a switch. Senator Richard Burr, the top Republican on the US Senate Health Committee, denounced Biden’s decision. “Intellectual property protections are part of the reason we have these life-saving products,” he said. “Stripping these protections only ensures we won’t have the vaccines or treatments we need when the next pandemic occurs.” The Republican senators backed by Republican Study Committee chairman Jim Banks propose to introduce legislation to block the move. Clearly, Biden would rather spend his political capital on getting the necessary legislation through Congress to advance his domestic reform agenda rather than spend time and energy to take on the pharmaceutical industry to burnish his image as a good Samaritan on the world stage. Conceivably, Biden could be counting on the “text-based negotiations” at the WTO dragging on for months, if not years, without reaching anywhere. The US support for the waiver could even be a tactic to persuade pharmaceutical firms to back less drastic steps like sharing technology and expanding joint ventures to boost global production quickly. So far Covid-19 vaccines have been distributed primarily to the wealthy countries that developed them, while the pandemic sweeps through poorer ones such as India, and the real goal is, after all, expanded vaccine distribution. Biden is well aware that there will be huge opposition to the TRIPS waiver from the United States’ European allies as well. The British press has reported that the UK has been in closed-door talks at the World Trade Organization in recent months along with the likes of Australia, Canada, Japan, Norway, Singapore, the European Union and the US, who all opposed the idea.

#### Drug costs key to Democratic 2022 Midterms

Fuchs et al 9/2 Fuchs, Hailey, et al. Hailey Fuchs is a reporter at POLITICO. Alice Ollstein is a health care reporter for POLITICO Pro, covering the Capitol Hill beat, BA from Oberlin. Megan Wilson is a reporter for POLITICO. "Drug industry banks on its Covid clout to halt Dems’ push on prices." POLITICO, 2 Sept. 2021, [www.politico.com/news/2021/09/02/drug-prices-democrats-lobbying-508127](http://www.politico.com/news/2021/09/02/drug-prices-democrats-lobbying-508127).

As the fight on and off Capitol Hill ramps up in the coming weeks, the White House is fully aware that tackling drug costs could be pivotal for Biden’s legacy and Democrats’ efforts to hold onto their House and Senate majorities. And it’s particularly salient after Trump’s pledges to take on the industry largely fell flat.

#### Leads to rampant Trumpism and populism

Kilgore 8/31 Kilgore, Ed. Ed Kilgore is a political columnist for New York magazine and the managing editor of the Democratic Strategist, an online magazine. "The Midterms Could Give the Senate a MAGA Makeover." Intelligencer, 31 Aug. 2021, nymag.com/intelligencer/2021/08/2022-midterms-could-add-more-trump-republicans-to-senate.html.

Those hoping or fearing that Trumpism will become consolidated as the ideological creed of the Republican Party going forward are understandably focused on the 45th president’s activities and utterances. But there are growing signs that his malignant worldview is developing a life of its own, and will take a giant leap toward control of the GOP in 2022 Senate primaries to replace retiring Establishment types. As Politico’s Marc Caputo observes: “The 2022 midterms could usher in a wave of full-spectrum MAGA supporters who would turn the GOP conference an even deeper shade of red — and make the Senate a lot more like the fractious House.”

Five Republican senators have already announced retirements next year: Missouri’s Roy Blunt, North Carolina’s Richard Burr, Ohio’s Rob Portman, Alabama’s Richard Shelby, and Pennsylvania’s Pat Toomey. Burr and Toomey voted to convict Trump in the 2021 impeachment trial, an obviously unforgivable offense to the GOP base. Blunt, Burr, and Portman also supported the bipartisan infrastructure bill that recently passed in the Senate, to the great fury of Republicans who viewed this action as either a betrayal of True Conservatism or as a larcenous misappropriation of a triumph denied to America’s real president. As the chairman of the socialistic Appropriations Committee, a close friend of Mitch McConnell, and a supporter of the treacherous Jeff Sessions’s 2018 comeback bid, Shelby is deemed unacceptably swampy.

All of these less-than-Trumpy lawmakers could be replaced (as Senate nominees if not necessarily elected U.S. senators) by loud-and-proud proponents of the America First cause, reports Caputo:

The three top candidates to succeed Sen. Richard Burr in North Carolina have all denounced his vote to convict Trump in his last impeachment trial. In Pennsylvania, the four leading candidates to succeed Sen. Pat Toomey — who, like Burr, was formally rebuked by the state party for his impeachment vote — have embraced Trump’s calls for an “audit” of the state’s presidential election results, to varying degrees …

The bipartisan infrastructure deal Ohio’s Sen. Rob Portman helped broker? Six of the top GOP candidates vying to replace him have rejected it.

In some of these states with retiring “moderates,” there are Trumpier-than-thou competitions underway (notably in Ohio, where Josh Mandel, Jane Timken, and J.D. Vance are fighting for the 45th president’s favor). In others, one or more major candidates are going maximum MAGA to an extent that makes Republicans nervous about their general-election prospects in a year where there is no margin for error if the GOP is to retake Senate control. In the latter category is Missouri, where disgraced former Governor Eric Greitens may be too Trumpy for Trump himself (the former president is reportedly annoyed that his son’s significant other, Kimberly Guilfoyle, has been named national campaign chair for Greitens). In Alabama, the ever-fiery Mo Brooks, who spearheaded the challenge to Joe Biden’s Electoral College victory in Congress on January 6 and spoke at the notorious “Stop the Steal” rally on the National Mall that very day, recently benefited from a Trump attack on Shelby and his designated successor Katie Britt: “I see that the RINO Senator from Alabama, close friend of Old Crow Mitch McConnell, Richard Shelby, is pushing hard to have his ‘assistant’ fight the great Mo Brooks for his Senate seat.”

The potential MAGA makeover of the Senate Republican Conference isn’t limited to the states of the five previously announced retirees. Trump nemesis Lisa Murkowski of Alaska is up next year and has not announced her intentions. If she does run, Alaska’s new top-four primary system all but guarantees the incumbent a spot in the general election, but she is vulnerable to a loss of Republican support to Kelly Tshibaka, a former state-level administrator who already has Trump’s endorsement (Sarah Palin also keeps hinting at participation in this contest as well). Eighty-seven-year-old Chuck Grassley’s future is also in limbo, and even if he runs for an eighth term in 2022, he will be opposed by state senator Jim Carlin, a Trump bravo who wants to investigate nonexistent 2020 election fraud and vows to fight “mammoth challenges from China, the disintegration of families, the decline of rural Iowa and the threat to free speech from big tech monopolies.” And South Dakota’s John Thune, who has drawn the ire of Trump supporters by mocking his 2020 Big Lie, could step down or attract a primary challenger next year (Governor Kristi Noem has said she’s not interested in taking down Thune for Trump, but could change her mind).

Any way you slice it, it’s very likely Senate Republicans overall will be less “traditional” in their conservatism in 2023. Whether or not they win back control of the chamber in the midterms, that’s bad news for any residual bipartisan plans Joe Biden might have for the balance of his first term, and good news for Trump or potential successors to the leadership of the right-wing “populist” political movement he has created.

#### Extinction through breakdown of multilateralism and climate change

Calland 20 Calland, Richard. "Countering climate denialism requires taking on right-wing populism. Here's how." Conversation February 12, 2020, theconversation.com/countering-climate-denialism-requires-taking-on-right-wing-populism-heres-how-131693.

Increasingly, there is an understanding that the climate emergency is not an environmental problem. It has grave ecological implications, but it’s a human development issue above all. And, it has profound implications for technology and infrastructure, for the world of investment and finance, and for global security.

To make sense of these challenges and work towards solutions, it is necessary to understand these links, tensions and trade-offs. This is why the international research organisation Future Earth has produced Our Future on Earth 2020. It’s a landmark new report of a dozen sustainability-focused essays. They are written by experts across academia and across the globe.

The consensus among scientists is that we are now in the eleventh hour. That humanity has just ten years to take the transformational steps necessary to avoid catastrophe.

Political analysis, without partisanship

Will it get its act together?

Unfortunately, there is a harsh political economy. My own contribution to the Our Future on Earth report focuses on the impact of the global rise in right-wing populism on climate action. This breed of politics exploits peoples’ fears during times of economic decline and growing inequality, and focuses on nationalist tendencies.

Right-wing populism and denialism

In a complex world facing complex problems, it is seductive for politicians to identify a single culprit (like immigrants) or an evil force (like universal healthcare) to blame for the erosion of society, the economy, and the welfare of the masses.

This is hardly ever true, but it is compelling. Take the bewilderingly complicated set of relationships between food, energy, urban infrastructure, and exponential demographic growth and change (at least in the developing world). Climate change and its effects are perhaps the epitome of a complex issue of interlinked social, political, and physical forces. That makes it an easy target for this sort of denialism.

So, populism ends up denying not just the science of climate change but also the complexity of the entire issue – which is critical for both diagnosing the problem and determining the prognosis and the prescription.

Populism strips issues of nuance, and thereby obstructs progress.

A 2019 study mapping the climate agendas of right-wing populist parties in Europe contains some revealing evidence: two thirds of right-wing populist members of the European Parliament “regularly vote against climate and energy policy measures”. Half of all votes against resolutions on climate and energy in the European Parliament come from right-wing populist party members.

Of the 21 right-wing populist parties analysed, seven were found to

deny climate change, its anthropogenic causes, and negative consequences.

According to estimates based on the World Resources Institute’s global greenhouse-gas emissions data, about 30% of global emissions come from countries with populist leaders.

At the very moment when global cooperation is essential if climate action is to be effective, many of the leaders of these right-wing populist forces are trying to dismantle or weaken multilateral organisations such as the United Nations or the European Union.

These political groups threaten to derail progress on the global response to climate change, and on new thinking about how to rewire the economy in pursuit of a more sustainable world.

More hopefully, as grassroots organisations emerge as a potentially strong, countervailing force, the trick will be to effectively connect these movements to matters of global social justice. They should also be given enough coherence to be effective. Thus, again, shifting the lens for the climate crisis away from an environmental preoccupation towards human development and social justice.

For example, how can Thunberg and the student strike movement in the global north connect with the 1.6 million children that are displaced in Malawi, Zimbabwe, and Mozambique from cyclones? Such connections need to be made to turn these nascent movements into powerful advocates for climate justice.

Tipping the scale

Regardless of whether the political will needed take transformational action to drastically reduce carbon emission and adapt economies and societies, especially in the global South, will be summoned by 2030, it is clear that by the end of this century life on earth will be very different to how it is now. It will certainly be more difficult and dangerous.

This applies to everyone, but especially the poorest and most vulnerable members of a human society that is set to peak at around 9,8 billion by 2050 (up from the current 7,8bn).

This is the human development challenge for sub-Saharan Africa.

It’s not all doom and gloom. There are huge opportunities amid the grave threats. A first step to responding appropriately – individually and collectively – is understanding that the challenge is multi-dimensional. Only then can a multi-dimensional strategy be executed, across sectors and across national boundaries.

But it is likely that the greatest impediment to taking action will not be technological know-how or even raising the money required. Instead it will be the lack of enough political will, given the obstructionism of right-wing populists in power around the globe.

Hence, a political struggle will need to be won. And the fight for climate justice in the face of right-wing populist climate denialism is a titanic one.

Trump-like trajectories into the “post-truth” world of climate change denial, charged by the amplifying impact of social media, distract from and obstruct the necessary action. Yet despite its flaws, the digital age presents a huge opportunity to impose a counter-narrative, and for recruiting new activists.

People can connect more easily across seas and time zones. Climate denialism can be rebutted and populist rhetoric rebuffed. Protests can be arranged quickly. And the young will do it best, not least because they have the deepest vested interest of all: their future is at stake.

#### Drug price controls massively reduce healthcare costs across the board – even assuming conservative models

Gamba 6/9 Gamba, Tyler. Author at the AJMC. "Adoption of the Lower Drug Costs Now Act May Lead to Billions in Savings." AJMC, 9 June 2021, www.ajmc.com/view/adoption-of-the-lower-drug-costs-now-act-may-lead-to-billions-in-savings.

H.R.3, the Elijah E. Cummings Lower Drug Costs Now Act would improve efficiency and produce billions in savings for the commercial health care market’s employers and end consumers if fully implemented, according to a new study from Milliman commissioned by the West Health Policy Center.

Among its goals, the act’s provisions seek to reduce prescription drug costs, increase drug price transparency, lower member out-of-pocket spending, and increase potential coverage eligibility. Costs for the most expensive brand drugs in the United States would be negotiated between the manufacturers and the HHS secretary. Significant drug cost increases over the rate of inflation would need to be issued back as rebates to CMS.

To predict the effects of such reforms, the Milliman study sought quantitative estimates for the scope of these changes. Milliman’s models incorporated several variables, including current trends and projected spending based on different percentage adjustments to drug prices, rebates, and public vs private cost rates from 2023 through 2029.

The study estimates 46% of drug spending would be subject to negotiation under the legislation’s Title I by 2026, with an average 2.5% reduction in total commercial market claims by 2029.Overall, successful implementation of H.R. 3 means employers may reduce their health care expenditures by $195 billion while employees would save $61 billion. Of this latter amount, reduced premiums would account for $53 billion and out-of-pocket costs, $8 billion.

Overall, the market covered by the Affordable Care Act (ACA) could see savings of $58 billion, comprising $34 billon in reduced beneficiary premiums, $21 billion in federal savings by reduced Advance-Premium Tax Credits, and $2 billion in lower cost-sharing.

The estimates assume manufacturers could make such increases to the prices at a faster rate than the current yearly trends. This possibility still leads to stronger total savings via H.R. 3’s Title I. The study does not factor in further limitations on increases by plan sponsors and pharmacy benefit managers, which could improve savings for employers and employees, because it mainly applies to Medicare.

Under the most conservative pricing model—where manufacturers hypothetically increase supply costs to unprecedented highs to minimize revenue loses—$250 billion in lower costs are still passed on to employers and employees.

Additionally, the study notes that although end consumers are generally responsible for most of their plan premiums, and thus would get most of the savings, the federal government also would save on the significant portion it pays toward member premiums in the individual marketplaces.

#### Collapses the economy

Howrigon, 16 — Ron Howrigon, M.S. in Economics with a focus on Health Economics from North Carolina State University, President and Founder of Fulcrum Strategies, 18 Years of Experience in Healthcare, 12-30-2016, “Flatlining: How Healthcare Could Kill the U.S. Economy,” Greenbranch Publishing, 1st Edition, Accessed via Minnesota Libraries, Date Accessed: 8-10

Ok, let’s shift from looking at individuals to looking at the big picture—from micro- to macroeconomics. It’s important to understand where healthcare **fits into the big picture** when it comes to the economy at large. Most people who don’t work in the industry don’t clearly understand how much of the U.S. economy healthcare makes up. In fact, given the size of the economy, healthcare in the U.S. can be impactful on the ***world* economy**. This is important to understand because future changes in healthcare not only affect ow we get care and how much we pay for it, but could also significantly affect things like **unemployment**, the **national debt**, and **interest rates**. The influences on the U.S. economy will have **a ripple effect** on other countries around the world. In 1960, healthcare as a market accounted for only 5% of the U.S. economy. For every dollar transacted, only 5 cents were spent for healthcare. The entire U.S. economy was $543 billion, and healthcare accounted for about $27 billion. By itself, in 1960, the U.S. healthcare market would rank as the 15th largest world economy, putting it just in front of the GDP (Gross Domestic Product) of Australia and just behind the GDP of Italy. Think about that for a minute: the U.S., **spent more money on healthcare** than the Australians did on everything! To put this further into perspective, in 1960, the U.S. Department of Defense was twice as large as healthcare. The Defense Department consumed 10% of the U.S. economy, which means it would rank as the 11th largest world economy just in front of Japan and just behind China. Now fast-forward 50 years. In 2010, the United States GDP was $15 trillion. The total healthcare expenditures in the United States for 2010 were $2.6 trillion. At $2.6 trillion, the U.S. healthcare market has moved up from 15th and now ranks as the **5th largest world economy**, just behind Germany and just ahead of both France and the United Kingdom. That means that while healthcare was only 5% of GDP in 1960, it has risen to over 17% of GDP in only 50 years. Over that same time, the Defense Department has gone from 10% of GDP to less than 5% of GDP. This means that in terms in terms of its portion of the U.S. economy, defense spending has been reduced by half while healthcare spending has more than tripled. If **healthcare** continues to trend at the same pace it has for the last 50 years, it will consume more than **50% of the U.S. economy** by the year 2060. Every economist worth their salt will tell you that health-care will never reach 50% of the economy. It’s simply not possible because of **all the other things** it would have to **crowd out to reach** that point. So, if we know healthcare can’t grow to 50% of our economy, **where is the breaking point?** **At what point does healthcare consume so much of the economy that it breaks the bank**, so to speak? This is the big question when it comes to healthcare. If something doesn’t happen to reverse the 50-year trend we’ve been riding, when will the healthcare bubble burst? How bad will it be and how exactly will it happen? While no one knows the **exact answers** to those questions, economists and healthcare experts agree that something needs to **happen**, because we simply **can’t continue on this trend** forever. Another way to look at healthcare is to study its impact on the federal budget and the national debt. In 1998, federal healthcare spending accounted for 19% of the revenue taken in by the government. Just eight years later, in 2006, healthcare spending had increased to 24% of federal revenue. In 2010, the Affordable Healthcare Act passed and significantly increased federal spending accounted for almost one-third of all revenue received by the government and surpassed Social Security as the largest single budget category. What makes this trend even more alarming is the fact that revenue to the federal government double from 1998 to 2016. That means healthcare spending by the federal government has almost quadrupled in terms of actual dollars in that same time period. If this trend continues for the next 20 years, healthcare spending will account for over half the revenue received by the government by the year 2035. Again, the simply can’t happen without causing significant issue for the financial wellbeing of out country. In recent history, the U.S. economy has experienced the near catastrophic failure of two major market segments. The first was the auto industry and the second was the housing industry. While each of these reached their breaking point for different reasons, they both required a significant government bailout to keep them from completely melting down. What is also true about both of **those market failures** is that, looking back, it’s easy to see the warning signs. What happens if health care is the next industry to suffer a major failure and collapse? It’s safe to say that a **health care meltdown** would make both the **auto**motive and **housing** industries’ experiences **seem minor** in comparison. While that may be hard to believe, it becomes clear if you look at the numbers. The **auto industry** contributes around 3.5 percent of this country’s GDP and employs 1.7 million people. This industry was deemed **“too big to fail”** which is the rationale the U.S. government used to finance its bail out. From 2009 through 2014, the federal government invested around $80 billion in the U.S. auto industry to keep it from collapsing. Health care is five times larger than the auto industry in terms of its percentage of GDP, and is ten times larger than the auto industry in terms of the number of people it employs. The construction industry (which includes all construction, not just housing) contributes about 6 percent of our country’s GDP and employs 6.1 million people. Again, the health care market dwarfs this industry. It’s **three times larger** in terms of GDP production and, with 18 million people employed in the health care sector, it’s three times larger than construction in this area, too. These comparisons give you an idea of just how significant a portion health care comprises of the U.S. economy. It also begins to help us understand the impact it would have on the economy if health care melted down like the auto and housing industries did. So, let’s continue the comparison and use our experience with the auto and housing industries to suggest to what order of magnitude the impact a failure in the health care market would cause our economy. The bailout in the auto industry cost the federal government $80 billion over five years. Imagine a similar failure in health care that prompted the federal government to propose a similar bailout program. Let’s imagine the government felt the need to inject cash into hospital systems and doctors’ offices to keep them afloat like they did with General Motors. Since health care is five times the size of the auto industry, a similar bailout could easily cost in excess of $400 billion. That’s about the same amount of money the federal government spends on welfare programs. To pay for a bailout of the health care industry, we’d have to eliminate all welfare programs in this country. Can you imagine the impact it would have on the economy if there were suddenly none of the assistance programs so many have come to rely upon? When the housing market crashed, it caused the loss of about 3 million jobs from its peak employment level of 7.4 million in 1996. Again, if we transfer that experience to the health care market, we come up with a truly frightening scenario. If health care lost 40 percent of its jobs like housing did, it would mean 7.2 million jobs lost. That’s more than four times the number of people who are employed by the entire auto industry — an industry that was considered too big to be allowed to fail. The loss of **7.2 million jobs** would increase the unemployment rate by 5 percent. That means we could easily top the **all-time high unemployment rate** for our country. OK, now it’s time to take a deep breath. I’m not convinced that health care is fated to **unavoidable failure** and economic catastrophe. That’s a worst-case scenario. The problem is that at even a fraction the severity of the auto or housing industry crises we’ve already faced, a health care collapse would still be devastating. Health care **can’t be allowed** to continue its current inflationary trending. I believe we are on the verge of some major changes in health care, and that how they’re **implemented** will determine their impact on the overall **economic picture** in this country and around the world. Continued failure to recognize the truth about health care will only cause the resulting market corrections to be worse than they need to be. I don’t want to diminish the pain and anguish that many people caught up in the housing crash experienced. I think an argument can be made, though, that if the health care market crashes and millions of people end up with no health care, the resulting fallout could be could be much worse than even the housing crisis.

#### Economic decline causes nuclear war

Tønnesson, 15 — Stein Tønnesson, Leader of East Asia Peace program at Uppsala University, Research Professor at the Peace Research Institute Oslo, “Deterrence, Interdependence and Sino–US Peace” International Area Studies Review, Review Essay, Volume 18, Issue 3, Pages 297-311, SAGE Journals, Minnesota Libraries, Date Accessed: 8-4

Several recent works on China and Sino–US relations have made substantial contributions to the current understanding of how and under what circumstances a combination of nuclear deterrence and economic interdependence may reduce the risk of war between major powers. At least four conclusions can be drawn from the review above: first, those who say that interdependence may **both inhibit and drive conflict** are right. Interdependence raises the **cost of conflict** for all sides but asymmetrical or unbalanced dependencies and **negative trade expectations** may generate tensions leading to trade wars among inter-dependent states that in turn increase the risk of military conflict (Copeland, 2015: 1, 14, 437; Roach, 2014). The risk may increase if one of the interdependent countries is governed by an inward-looking socio-economic coalition (Solingen, 2015); second, the risk of war between China and the US should not just be analysed bilaterally but include their allies and partners. Third party countries could drag China or the US into confrontation; third, in this context it is of some comfort that the three main economic powers in Northeast Asia (China, Japan and South Korea) are all deeply integrated economically through production networks within a global system of trade and finance (Ravenhill, 2014; Yoshimatsu, 2014: 576); and fourth, decisions for war and peace are taken by very few people, who act on the basis of their future expectations. International relations theory must be supplemented by foreign policy analysis in order to assess the value attributed by national decision-makers to economic development and their assessments of risks and opportunities. If leaders on either side of the Atlantic begin to seriously fear or **anticipate their own nation’s decline** then they may blame this on **external dependence**, appeal to anti-foreign sentiments, contemplate the use of force to gain respect or credibility, adopt protectionist policies, and ultimately **refuse to be deterred by** either **nuclear arms** or prospects of socioeconomic calamities. Such a dangerous shift could happen **abruptly**, i.e. under the instigation of actions by a third party – or against a third party.

Yet as long as there is both nuclear deterrence and interdependence, the tensions in East Asia are unlikely to escalate to war. As Chan (2013) says, all states in the region are aware that they cannot count on support from either China or the US if they make provocative moves. The greatest risk is **not** that **a territorial dispute** leads to war under present circumstances but that **changes in the world economy** alter those circumstances in ways that render **inter-state peace** more precarious. If China and the US fail to rebalance their financial and trading relations (Roach, 2014) then a trade war could result, interrupting transnational production networks, provoking social distress, and exacerbating nationalist emotions. This could have **unforeseen consequences** in the field of security, with nuclear deterrence remaining the only factor to **protect the world from Armageddon**, and **unreliably so**. Deterrence could **lose its credibility**: one of the two great powers might gamble that the other yield in a cyber-war or conventional limited war, or third-party countries might engage in conflict with each other, with a view to obliging Washington or Beijing to **intervene**.

## Case

### 1NC – Innovation

#### Pharmaceutical innovation is accelerating now – new medicines are substantially better than existing treatments.

Wills and Lipkus 20 – Todd J. Wills [Managing Director @ Chemical Abstracts Service, MBA from THE Ohio State University] and Alan H. Lipkus [Senior Data Analyst @ Chemical Abstracts Service, PhD Physical Chemistry from the University of Rochester], “Structural Approach to Assessing the Innovativeness of New Drugs Finds Accelerating Rate of Innovation,” ACS Medicinal Chemistry Letters, Vol. 11, 2020, <https://pubs.acs.org/doi/pdf/10.1021/acsmedchemlett.0c00319> C.VC

Despite recent concerns over an innovation crisis, this analysis shows pharmaceutical innovation has actually increased over the last several decades based on the structural novelty of approved NMEs. The higher proportion of Pioneers over the most recent decade is a sign that innovation within the industry is accelerating rather than slowing. It is also an encouraging sign for the state of innovation in drug discovery that these Pioneers are significantly more likely to be the source of promising new therapies that are expected to provide substantial clinical advantages over existing treatments. Drug hunters are discovering Pioneers in newer and less explored regions of chemical space as they are increasingly found on scaffolds first reported in the CAS REGISTRY five or less years prior to their IND year or on scaffolds populated with 50 or less other compounds at the time of IND.

As scale becomes less of a strategic advantage, Big Pharma’s share of Pioneers has decreased even though the number of Big Pharma originated Pioneers has increased. This has created a structural innovation gap between Big Pharma and the Rest of Ecosystem which has widened over the last two decades as the Rest of Ecosystem is now responsible for originating almost 3 out of every 4 Pioneers. Pioneers originated by the Rest of Ecosystem are increasingly on new scaffolds, while a majority of Big Pharma originated Pioneers have historically been on new scaffolds.

The work presented here was intended as a study of drug innovation at a macro level. As a result, it included substances of various sizes with different degrees of complexity belonging to a range of functional and drug classes. Even though it was outside the scope of the present work to study specific subsets, such focused studies could yield additional insights into how innovation at a more micro level has changed over time. Other interesting subsets of our data set are the shapes and scaffolds of the Settlers and Colonists. Many of these shapes and scaffolds are privileged in the sense that they are seemingly capable of serving as ligands for a diverse array of target proteins. A separate study of the Settlers and Colonists as well as their side chains could provide insights into possible target-specific innovation trends.

As it often takes more than 10 years after initial discovery for an experimental drug to gain FDA approval, any measure of drug innovation that relies on the time of approval incorporates a significant time lag between initial discovery and ultimate approval. However, characterizing drug innovation based on structural novelty provides a means to assess the forward-looking innovation potential of an experimental drug at the time of initial discovery by comparing its framework information (at the scaffold and shape level) with prior FDA-approved drugs. Therefore, a separate study of drug candidates with publically disclosed structures currently in clinical development could provide additional insights into innovation trends at an FDA regulatory review level and serve as a leading indicator of innovation trends at an FDA approval level.

Given the tremendous opportunity represented by the vast amount of chemical space yet to be explored, drug-hunters of all types will continue pushing the boundaries to find promising new therapies in previously unexplored areas of chemical space. The race to discover these new drugs will be fueled by further advancements in screening approaches and in-silico methods (including innovations related to machine learning algorithms and molecular representations). However, comprehensive data on known shapes and scaffolds can fast track the identification of meaningful open areas of chemical space (shapes or scaffolds that are potentially important but have never been used as the basis for a molecule) to further explore.

#### The biopharmaceutical industry is uniquely reliant on IP protections – the plan kills innovation by making an already expensive process completely unfeasible.

Kristina M. Lybecker, PhD, 17 [PhD Economics, Associate Professor of Economics @ Colorado College], “Intellectual Property Rights Protection and the Biopharmaceutical Industry: How Canada Measures Up,” Fraser Institute, January 2017, <https://www.fraserinstitute.org/sites/default/files/intellectual-property-rights-protection-and-the%20biopharmaceutical-industry.pdf> C.VC

The unique structure of the innovative biopharmaceutical industry necessitates a variety of intellectual property protection mechanisms. In particular, the industry is characterized by a research and development (R&D) process that is lengthy, expensive, uncertain, and risky. According to DiMasi and colleagues, the estimated cost of developing a new medicine is US$2.6 billion (DiMasi, Grabowski, and Hansen, 2016).2 In addition, the time required to develop a new drug is also significant, averaging 10 to 15 years without any guarantee of success (PhRMA, n.d.). While these figures are highly controversial, biopharmaceutical innovation is unquestionably an expensive and lengthy undertaking.3 For the biopharmaceutical industry, innovation and its protection are essential and the source of both profits and growth. As such, patent protection is disproportionally more important for ensuring that the innovator appropriates the returns to R&D for the biopharmaceutical industry than virtually any other. Extending the findings of the 1987 “Yale Survey” (Levin, Klevorick, Nelson, and Winter, 1987), the “Carnegie Mellon Survey” established that while patents are again considered “unambiguously the least effective appropriability mechanisms,” the drug industry and other scholars regard them as strictly more effective than alternative mechanisms (Cohen, Nelson, and Walsh, 1996). The industry’s disproportionate reliance on patents and other forms of intellectual property protection is confirmed in numerous other studies.4

In essence, IPR protections provide innovative biopharmaceutical firms with an assurance of some return on their investment, thus creating incentives for the development of new technologies that could otherwise be easily replicated and sold by competitors. Due to the tremendous fixed costs required to develop new treatments and cures, a significant potential exists for free riding by follower firms, a market failure that would prevent investment in innovation were it not for the patents and other forms of intellectual property protections that provide a limited period of market exclusivity or other such incentives. Fundamentally, patents amount to an efficiency tradeoff. Society provides innovators with a limited period of market exclusivity to encourage innovation in exchange for public access to this knowledge. In exchange for the temporary static loss from market exclusivity, society gains complete knowledge of the innovation through disclosure, a permanent dynamic gain. Through this tradeoff, the existing patent system corrects the market failure that would stymie innovation. In its Apotex Inc. v. Wellcome Foundation Ltd. finding, Justice Binnie wrote for the Supreme Court of Canada, “A patent, as has been said many times, is not intended as an accolade or civic award for ingenuity. It is a method by which inventive solutions to practical problems are coaxed into the public domain by the promise of a limited monopoly for a limited time. Disclosure is the quid pro quo for valuable proprietary rights to exclusivity which are entirely the statutory creature of the Patent Act” (para. 37).

The biopharmaceutical industry is characterized by a number of legal and economic issues that distinguish it from other research-intensive industries. Danzon (1999) describes three features that are particularly noteworthy. First, given that the biopharmaceutical industry is characterized by an unusually high rate of R&D, intellectual property protection provides for the potential for significant market power and monopoly pricing that raises numerous public health policy questions surrounding prices and profits. Second, virtually every aspect of the industry is heavily regulated, from safety and efficacy to promotion and advertising, to pricing and reimbursement. Danzon describes the impact of these regulations as “profound and multidimensional even within a single country, affecting consumption patterns, productivity, R&D and hence the supply of future technologies” (Danzon, 1999: 1056). Lastly, while research and development costs are borne solely by the innovator, the resulting product is a global public good. “Each country faces an incentive to adopt the regulatory policies that best control its pharmaceutical budget in the short run, free-riding on others to pay for the joint costs of R&D and ignoring cross-national spillovers of national regulatory policies through parallel trade and international price comparisons” (Danzon, 1999: 1056). The combination of these characteristics defines a set of unique economic and legal challenges for the innovation of new drugs and the public health policies that surround their production, marketing, and distribution.

Innovative companies make far greater investments in time, resources, and financial support than do generic firms. Notably, innovation-based companies spend more than 200 times that which generic companies spend on the development of a particular drug (CIPC, 2011: 10). In addition, the investment of time, from laboratory to market, is also close to double for innovative companies relative to generic producers. Table 1 highlights the differences in the drug development processes of innovative and generic companies. For innovative biopharmaceutical companies, the development process is expensive, risky, and time consuming, all of which points to the need for strong IP protection to encourage investment and ensure companies are able to recover their investments.

The risk involved in biopharmaceutical development is starkly illustrated in a recent report by Biotechnology Innovation Organization (BIO), which reports that less than one of every 10 drugs that enter clinical trials is ultimately approved by the Food and Drug Administration in the United States. The report finds a success rate of merely 9.6%, a calculation that is significantly smaller than the widely-cited 11.8% figure from a 2014 study by the Tufts University’s Center for the Study of Drug Development.5 The International Federation of Pharmaceutical Manufacturers and Associations (2012) estimates that more than 3,200 compounds were at different stages of development globally in 2011, but only 35 new medicines were launched (Dawson, 2015).

Fundamentally, research-based biopharmaceutical companies incur greater expenses and risk in the development of their products than do generic manufactures. These investments of time and financial resources should be recognized and the effective patent life should be sufficient to recoup these investments. Continued investment and innovation are contingent upon strong, effective intellectual property protection and the ability of innovative firms to recoup their investments. Patents and other forms of intellectual property protection are disproportionally important to the research-based biopharmaceutical industry. Consequently, the legal architecture necessary to foster a robust innovation-based industry is multifaceted and is a powerful force shaping the biopharmaceutical industry, its profitability, productivity, and innovative future.

**No warrant in NAS evidence – it’s about biology and life-sciences, not drugs or pharma**

**Variations and adaptation solve pandemics – applies to super bugs**

Amesh **Adalja 16**, infectious-disease physician at the University of Pittsburgh, 6/17/16, “Why Hasn't Disease Wiped out the Human Race?,” <https://www.theatlantic.com/health/archive/2016/06/infectious-diseases-extinction/487514/>

But when people ask me if I’m worried about infectious diseases, they’re often not asking about the threat to human lives; they’re asking about the threat to **human life**. With each outbreak of a headline-grabbing emerging infectious disease comes a fear of **extinction itself**. The fear envisions a large proportion of humans succumbing to infection, leaving no survivors or so few that the species can’t be sustained. I’m not afraid of this apocalyptic scenario, but I do understand the impulse. Worry about the end is a quintessentially human trait. Thankfully, **so is our resilience**. For most of mankind’s history, infectious diseases were the existential threat to humanity—and for good reason. They were quite successful at killing people: The 6th century’s Plague of Justinian knocked out an estimated 17 percent of the world’s population; the 14th century Black Death decimated a third of Europe; the 1918 influenza pandemic killed 5 percent of the world; malaria is estimated to have killed half of all humans who have ever lived. Any yet, of course, humanity continued to flourish. Our species’ recent explosion in lifespan is almost exclusively the result of the control of infectious diseases through sanitation, vaccination, and antimicrobial therapies. Only in the modern era, in which many infectious diseases have been tamed in the industrial world, do people have the luxury of death from cancer, heart disease, or stroke in the 8th decade of life. Childhoods are free from watching siblings and friends die from outbreaks of typhoid, scarlet fever, smallpox, measles, and the like. So what would it take for a disease to wipe out humanity now? In Michael Crichton’s The Andromeda Strain, the canonical book in the disease-outbreak genre, an alien microbe threatens the human race with extinction, and humanity’s best minds are marshaled to combat the enemy organism. Fortunately, outside of fiction, there’s no reason to expect alien pathogens to wage war on the human race any time soon, and my analysis suggests that any real-life domestic microbe reaching an extinction level of threat probably is just as unlikely. Any apocalyptic pathogen would need to possess a very special combination of two attributes. First, it would have to be so unfamiliar that no existing therapy or vaccine could be applied to it. Second, it would need to have a high and surreptitious transmissibility before symptoms occur. The first is essential because any microbe from a known class of pathogens would, by definition, have family members that could serve as models for **containment and countermeasures**. The second would allow the hypothetical disease to spread without being detected by even the most astute clinicians. The three infectious diseases most likely to be considered extinction-level threats in the world today—influenza, HIV, and Ebola—don’t meet these two requirements. Influenza, for instance, despite its well-established ability to kill on a large scale, its contagiousness, and its unrivaled ability to shift and drift away from our vaccines, is still what I would call a “known unknown.” While there are many mysteries about how new flu strains emerge, from at least the time of Hippocrates, **humans have been attuned to its risk**. And in the modern era, a full-fledged industry of influenza preparedness exists, with effective vaccine strategies and antiviral therapies. HIV, which has killed 39 million people over several decades, is similarly limited due to several factors. Most importantly, HIV’s dependency on blood and body fluid for transmission (similar to Ebola) requires intimate human-to-human contact, which limits contagion. Highly potent antiviral therapy allows most people to live normally with the disease, and a substantial group of the population has genetic mutations that render them impervious to infection in the first place. Lastly, simple prevention strategies such as needle exchange for injection drug users and barrier contraceptives—when available—can curtail transmission risk. Ebola, for many of the same reasons as HIV as well as several others, also falls short of the mark. This is especially due to the fact that it spreads almost exclusively through people with easily recognizable symptoms, plus the taming of its once unfathomable 90 percent mortality rate by simple supportive care. Beyond those three, **every other known disease** falls short of what seems required to wipe out humans—which is, of course, why we’re still here. And it’s not that diseases are ineffective. On the contrary, diseases’ failure to knock us out is a testament to just how resilient humans are. Part of our evolutionary heritage is our immune system, one of the most complex on the planet, even without the benefit of vaccines or the helping hand of antimicrobial drugs. This system, when **viewed at a species level**, can adapt to almost **any enemy imaginable**. Coupled to genetic variations amongst humans—which open up the possibility for a range of advantages, from imperviousness to infection to a tendency for mild symptoms—this adaptability ensures that almost any infectious disease onslaught will **leave a large proportion of the population alive to rebuild**, in contrast to the fictional Hollywood versions. While the immune system’s role can never be understated, an even more powerful protector is the faculty of consciousness. Humans are not the most prolific, quickly evolving, or strongest organisms on the planet, but as Aristotle identified, humans are the rational animals—and it is this fundamental distinguishing characteristic that allows humans to form abstractions, think in principles, and plan long-range. These capacities, in turn, allow humans to modify, alter, and improve themselves and their environments. Consciousness equips us, at an individual and a species level, to make nature safe for the species through such technological marvels as antibiotics, antivirals, vaccines, and sanitation. When humans began to focus their minds on the problems posed by infectious disease, human life ceased being nasty, brutish, and short. In many ways, human consciousness became infectious diseases’ worthiest adversary. None of this is meant to allay all fears of infectious diseases. To totally adopt a Panglossian viewpoint would be foolish—and dangerous. Humans do face countless threats from infectious diseases: witness Zika. And if not handled appropriately, severe calamity could, and will, ensue. The West African Ebola outbreak, for instance, festered for months before major efforts to bring it under control were initiated. When it comes to infectious diseases, I’m worried about the failure of institutions to understand the full impact of outbreaks. I’m worried about countries that don’t have the infrastructure or resources to combat these outbreaks when they come. But as long as we can keep adapting, **I’m not worried about the future of the human race**.

#### The aff doesn’t solve global health diplomacy – their ev isn’t about giving people next gen AIDS medication, it’s about making sure people have clean water in developing countries and stuff – their ev isn’t about the stuff that’s being cooked up by Pfizer right now, it’s about health diplomacy more broadly Their internal link card says we need to use R&D to prevent non transmissible diseases and then be way more active in distributing food and water and medicines globally to solve global health crises – no ev says we do that after the plan; their card says we need to do policies that expand that now, not that we need more R&D

#### Their impact card is about how there’s instability in the Middle East, Africa, Central Asia, etc. – their card says there isn’t public health in places like Afghanistan, Iraq, Syria, etc. – no explanation for the aff solves that – how does pharma R&D stabilize afghanistan with the taliban in charge