**Counterplan, Resolved: All member nations of the World Trade Organization, except the US, ought to reduce intellectual property protections for medicines.**

I value Consequentialism

**Stanford encyclopedia of philosophy 03 defines Consequentialism  as**

**Consequentialism,** as its name suggests, **is** simply **the view that normative properties depend only on consequences. This historically important and still popular theory embodies the basic intuition that what is best or right is whatever makes the world best in the future,** because we cannot change the past, so worrying about the past is no more useful than crying over spilled milk. **This general approach can be applied at different levels to different normative properties of different kinds of things,** but the most prominent example is probably consequentialism about the moral rightness of acts, which holds that whether an act is morally right depends only on the consequences of that act or of something related to that act, such as the motive behind the act or a general rule requiring acts of the same kind.

Thus the criterion is maximizing well being.

**[3] Only consequentialism explains degrees of wrongness—if I break a promise to meet up for lunch, that is not as bad as breaking a promise to take a dying person to the hospital. Only the consequences of breaking the promise explain why the second one is much worse than the first which is the most intuitive. That outweighs:**

**[A] Intuitions are inevitable since even every framework must take some unjustified assumption as a starting point.**

**US medical innovation is leading but China is catching up Randu ‘19**

[Sintia Radu. “U.S., China Compete for Medical Research Leadership.” US News & World Report, U.S. News & World Report, 2019, [www.usnews.com/news/best-countries/articles/2019-09-27/china-threatens-the-us-leadership-position-in-medical-research](http://www.usnews.com/news/best-countries/articles/2019-09-27/china-threatens-the-us-leadership-position-in-medical-research).]ZW Accessed 12 July 2021.

‌From vaccines to medical devices that provide a better quality of life, the [United States](https://www.usnews.com/news/best-countries/united-states) has long been a global leader in medical research. Yet new investments by other countries, particularly [China](https://www.usnews.com/news/best-countries/china), threaten[s] that standing. The way for the U.S. to remain on top: push for more innovation while paying closer attention to Asia, say experts. The U.S. is "the best country in the world in science" and reached the peak position in medical research as other regions, such as Europe, "shot themselves in the foot" and moved their research and development (R&D) capabilities to America, said Robert Atkinson, president of the Information Technology and Innovation Foundation, at [the Atlantic Festival](https://www.theatlanticfestival.com/) held this week in Washington, D.C. "It's surprising how many European companies do their R&D in the United States; we didn't make that mistake (of relocating R&D)." Apart from big R&D budgets and tax credits given to U.S. companies in this space, the U.S. has been able to retain its dominance in medical research due to the very nature of the industry – medical innovation is much harder to attain, can take decades of research, and is harder for others to copy or steal, Atkinson said. At the same time, America's main competitor, China, focused its expansion on other industries that are easier to grow. "China has been largely (advancing) in engineering-based innovation," Atkinson said. "That's easier to do." In 2015, [scientists tracking medical research activity](https://www.urmc.rochester.edu/news/story/4233/u.s.-slipping-as-global-leader-in-medical-research.aspx) during the previous two decades were praising U.S. leadership in the field of medical research, but also warning that the country was facing a decade of "steady decline," which could have allowed other nations to take this position from the U.S. through heavy investment in biomedical research. Last year, the U.S. held the [top position in global research and development](https://www.usnews.com/news/best-countries/articles/2018-11-09/these-countries-are-the-top-spenders-on-research-and-development) spending, and today five of the [10 top biotechnology companies in the world](https://www.investopedia.com/articles/markets/122215/worlds-top-10-biotechnology-companies-jnj-rogvx.asp) are American. Yet China is making advances in medical innovation, focusing on drug production and increased spending to sponsor medical development, said Guang Yang, an associate partner at McKinsey & Company who focuses on biopharmaceutical R&D. "All of these metrics have significantly grown in the last three to five years," Yang said, motivated and fueled by structural challenges and China's own challenges in improving its health care system that the country now has money to tackle. For instance, the Chinese now focus on finding treatments for common types of cancer in Asian populations, such as stomach cancer or esophageal cancer, said Yang, also speaking at the Atlantic Festival. "Those diseases have very low treatment options because the West-based pharma companies are not incentivized to develop drugs (for them)," Yang said. Chinese companies have greater incentives to test drug therapies on the types of cancer that are more common among the Chinese, Yang said. "And once approved, these (new) drugs will also benefit the American population that have the same disease." China also is pushing for greater medical innovation within its borders because of demographic shifts -- more than 70% of its population will be urbanized by 2030 and in the next 15 years more than 250 million Chinese will be older than 65. U.S. leadership in medical research will increasingly face challenges as more countries advance in both medical research and care, and in the use of technology, Atkinson said. Biomedical research and biopharmaceuticals are the new priorities for many governments seeking to be competitive in the fields. The Chinese, in particular, have both the plan and methods to accomplish those goals. "(All countries) want a part of that pie, they want to take it from us and every move they make comes at our expense," Atkinson added. "The Chinese are far behind us, but they have set their sights ... and they're using the same panoply of unfair trade practices and other practices."

**Reduction in IPP allows China to leapfrog over the US in biopharma Lawder ‘21**

[Lawder,Andrea, David. “U.S. Wants COVID Vaccine Patent Waiver to Benefit World, Not Boost China Biotech.” Reuters, Reuters, 8 May 2021, [www.reuters.com/world/china/us-wants-covid-vaccine-patent-waiver-benefit-world-not-boost-china-biotech-2021-05-08/](http://www.reuters.com/world/china/us-wants-covid-vaccine-patent-waiver-benefit-world-not-boost-china-biotech-2021-05-08/).] ZW Accessed 12 July 2021.

May 8 (Reuters) - The Biden administration is examining ways to ensure that a waiver of COVID-19 vaccine patents to aid poor countries will not hand sensitive U.S. biopharmaceutical technology to China and Russia, responding to a chorus of concerns, U.S. and industry officials say. President Joe Biden on Wednesday [**backed the U.S. entering negotiations**](https://www.reuters.com/business/healthcare-pharmaceuticals/biden-says-plans-back-wto-waiver-vaccines-2021-05-05/) at the World Trade Organization **for the waiver of intellectual property rights as a means to boost vaccine supplies** by allowing poorer countries to make their own. So far, vaccines have gone overwhelmingly to richer nations, which scooped up contracts for them earlier this year. COVID-19 infection rates in wealthy countries have dropped as vaccination rates increased this year, but [infections are still rising in 36 countries](https://www.reuters.com/world/factbox-worldwide-coronavirus-cases-cross-11038-million-death-toll-2546708-2021-02-02/), with India’s daily cases skyrocketing to nearly 400,000 a day. Western pharmaceutical companies, many of which have received government support to develop vaccines, strongly oppose the transfer of intellectual property to make them. They say poorer countries will be slow to set up manufacturing capacity and compete for scarce supplies, hitting production. Albert Bourla, CEO of Pfizer Inc, [said](https://www.linkedin.com/pulse/today-i-sent-letter-have-candid-conversation-our-drivers-bourla/?trackingId=p8C%2Fu3lALltT9tyeCAaSzA%3D%3D) on Friday that the proposed waiver would [disrupt progress made so far](https://www.reuters.com/business/healthcare-pharmaceuticals/pfizer-biontech-start-full-us-approval-application-covid-19-vaccine-2021-05-07/) in boosting vaccine supplies. “It will unleash a scramble for the critical inputs we require in order to make a safe and effective vaccine. Entities with little or no experience in manufacturing vaccines are likely to chase the very raw materials we require to scale our production, putting the safety and security of all at risk.” Many companies and now some U.S. officials fear the move **would allow China to leapfrog years of research and erode the U.S.** **advantage in biopharma**ceuticals. A senior Biden administration official said that while the priority is saving lives, the United States "would want to examine the effect of a waiver on China and Russia before it went into effect to ensure that it's fit for purpose." A question and answer document produced by the administration and shared with industry r**epresentatives also acknowledges concerns that intellectual property sharing could damage the United State's competitive advantage over China,** an industry source familiar with the discussions told Reuters. The contents of the document read to a Reuters reporter by an industry representative said the Biden administration believes it can address those concerns through the WTO negotiations, but did not specify how. The source added that some agencies in the Biden administration have conflicting views of how to address the concerns in negotiations that are expected to take months. Spokespersons at the White House and U.S. Trade Representative's office had no immediate comment on the matter. Pfizer and Moderna spokespersons did not respond to requests for comment on technology transfer concerns, while a Novavax spokesperson referred Reuters to the company's [statement](https://ir.novavax.com/news-releases/news-release-details/novavax-statement-opposition-wto-trips-waiver) opposing the waiver on Friday, which said proposals to "**weaken intellectual property protections would not achieve equitable vaccine access**." Enforcing limits on use of the technology could be very difficult, once handed over, some analysts say. Messenger RNA, used in COVID-19 vaccines by leaders Pfizer/BioNTech and Moderna, is a newly developed biotechnology that holds promise for treatments far beyond vaccines. **China** and Russia **have** **their own vaccines that do not use this biotech**nology. "It took Pfizer and Moderna years and years of research to develop these vaccines," said Gary Locke a former U.S. ambassador to China and U.S. Commerce Secretary. "China, Russia, India, South Africa and others want to gain access. **Their intention is to** get the underlying know-how so they can use it to **develop further vaccines**," Locke said. China's Fosun Pharma has struck a deal with BioNTech on COVID-19 vaccine product development, which would potentially give it access to some of the technology. China has high ambitions for its pharma industry and already is developing its own mRNA vaccine. Patents themselves are publicly accessible, noted James Pooley, intellectual property attorney and former deputy director general of the United Nations' World Intellectual Property Organization. But trade secrets developed by Pfizer/BioNTech, Moderna and others, "cook books" of manufacturing processes such as temperature and growing conditions, have not been made public.

**TRIPS agreement key to sustain US hegemony -Archibugi and Flippetti ’10**

[Archibugi, Daniele, and Andrea Filippetti. “The Globalisation of Intellectual Property Rights: Four Learned Lessons and Four Theses.” Global Policy, vol. 1, no. 2, May 2010, pp. 137–149, onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x, 10.1111/j.1758-5899.2010.00019.x.]ZW Accessed 4 July 2021.

‌The TRIPS Agreement strengthened previous standards by mandating enforcement in all member countries and by reforming the Dispute Settlement procedures within the WTO. Article 4 of the TRIPS Agreement applies a cornerstone of the global trade policy, the so-called Most Favoured Nation clause, to the IPRs ([World Trade Organisation, 2009](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b77)).[5](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#fn6_57) Article 10 allows the copyright protection of software and data sets, and fixes the term of protection at no less than 50 years. Article 33 establishes that the protection of patents shall not end before 20 years. Article 35 requires member countries to protect the layout designs of integrated circuits in accordance with the provisions of the Treaty on Intellectual Property in Respect of Integrated Circuits, negotiated under the auspices of the World International Property Organisation (WIPO) in 1989. Part 3 of the TRIPS Agreement is dedicated to the enforcements of IPRs, and Article 61 requires that members should provide civil as well as criminal remedies for the infringement of IPRs. This implies that all WTO members should develop or modernise their judicial systems and enforcement procedures to comply with TRIPS ([World Trade Organisation, 2009](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b77)). Through TRIPS, the IP systems of the most advanced countries are therefore exported from developed to developing countries, from countries that invest massively in R&D and innovation to countries with limited resources and infrastructures, from net high-tech exporters to net importers. Before the TRIPS Agreement most developing countries did not extend protection to emerging technologies such as software, integrated circuits and electronic databases, or allow IP to plant varieties. One of the most controversial issues has been the possibility of patenting in pharmaceuticals, an industry to which TRIPS dedicates special attention ([Lanoszka, 2003](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x" \l "b36)). India, Brazil, Argentina, Mexico and several other countries had weak IP protection on drugs which allowed the development of a generic drug national industry that is now incompatible with TRIPS. Regarding the enforcement and dispute settlement provisions, TRIPS introduces a fundamental novelty with respect to the previous international setting. Neither the Paris Convention for the Protection of Industrial Property nor the Berne Convention for the Protection of Artistic and Literary Property provided effective procedures for settling IPRs disputes. TRIPS has dramatically changed this state of affairs by linking IPRs to international trade, allowing advanced countries to increase further their bargaining power in the WTO. This ensures more effective enforcement and the possibility of using trade provisions, such as tariffs and quotas, to punish rule-breaking countries. [Table 1](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#t1) shows the disputes within the WTO concerning TRIPS. This ‘who is suing whom’ table shows that the US have the lion’s share of disputes. **The harmonisation of IPRs introduced by the TRIPS Agreement has led to a race to the top which is certainly not advantageous to countries wishing to catch up by acquiring the expertise, knowledge and innovations of the leaders** ([Chang, 2003](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b12)). Moreover, for most WTO members, TRIPS is an exogenous introduction of rules and standards. It is somehow surprising that this expansion of western standards occurred at a time when the usefulness of IPRs as a method to foster innovation and knowledge development is seriously challenged also in the west. Why has this happened? In the next section we will show how a few corporations succeeded in persuading more than 100 countries, most of them net importers of technology, to ‘approve’ the most important revolution in global IPRs. Second thesis: TRIPS is the outcome of a nondemocratic process driven by a club of US corporations A club of US multinational corporations played a major role in getting the TRIPS Agreement, providing one of the most important lessons on how business power shapes international politics ([Ryan, 1998](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b64); [Sell, 2003](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b65)). However, this should not necessarily be seen as a sign of the strength of the American economy, but rather as the consequence of the progressive erosion of US technological hegemony. Already at the beginning of the 1980s US supremacy in high-tech trade resulted in a showdown because of the impressive growth of Japan and, to a lesser extent, of Europe ([Nelson and Wright, 1992](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b57); [Pianta, 1988](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b61); [Rosenberg and Steinmueller, 1988](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b63)). US trade policy undertook by the mid-1980s a major shift in response to threats to its technological world hegemony. Beginning in the early 1980s, its annual trade deficit reached unprecedented levels. The US trade deficit topped $100 billion in 1984 and peaked at a record $153 billion in 1987 ([US Department of Commerce, 2009](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b70)). Linking the loss of market shares to IP infringement by other countries could provide an explanation for the former and a policy action for the latter. **US corporations hoped to find a remedy to their lack of competitiveness by making IPRs stronger in their markets abroad**. By the mid-1980s the US administration also began to encompass international affairs in its pro-IPRs silent revolution. This was justified by the feeling that free trade was no longer fair trade, since a substantial part of R&D and innovative investments financed by American corporations were appropriated without payment by competing firms in other countries. As the former assistant general counsel of the United States Trade Representative (USTR) said, ‘Our companies find that they must compete with the unauthorized copies not only in the source country but in third countries as well’ (cited in [Sell, 2003, p. 81](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b65)). In a more integrated global trade regime, in which high-tech industries were becoming the crucial factor of competitiveness, the fact that other countries had a more permissive regime of IP was perceived as one of the causes of the US trade deficit. As the assistant secretary of commerce argued, ‘there is a widespread bipartisan agreement that the protection of intellectual property worldwide is a critically important factor in expanding trade in high technology products’ (cited in [Sell, 2003, p. 83](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b65)). The link between trade and IPRs was formally established in 1984 in the Trade and Tariff Act in which, under section 301, IP protection became a motive for assessing other countries’ eligibility for nonreciprocal trade concessions.[6](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#fn7_71) From 1984 until the signing of the TRIPS Agreement of 1994 the USTR played a major role in bringing the interests of the US corporations into the global arena. During the Uruguay Round the USTR was closely connected with the major corporations through the International Intellectual Property Alliance (IIPA) and the Intellectual Property Committee (IPC). The IIPA was created to promote the copyright industry interest, while the IPC consisted of 12 chief executive officers representing IPRs-intensive industries. These influential business associations ([Ryan, 1998](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b64)) provided the USTR with several reports in which they pointed out the damages caused to US business by IP piracy country by country. The IPC’s major achievement was involving European and Japanese industry in their policy so that the US, Europe and Japan were united about the inclusion of an IP code in the General Agreement on Trade and Tariffs (GATT). When eventually the WTO replaced GATT in 1994, it included the TRIPS Agreement as one of its core pillars. As Susan Sell explicitly claims, ‘twelve corporations made public law for the world’ ([Sell, 2003, p. 96](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b65)). In return, developing countries obtained the liberalisation of international trade in textiles and apparel through the Multifibre Agreement (see also [Maskus, 2000](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1758-5899.2010.00019.x#b44)). Third thesis: TRIPS may serve the interests of western corporations but not necessarily those of western economies. The fact that TRIPS has been a western imposition does not necessarily imply that it will manage to serve western interests. Since the introduction of the TRIPS Agreement the trend of trade performance of the USA and other advanced countries has not changed remarkably.

**US Hegemony prevents war**

Zhang and Shi 2011

[ a researcher at the Carnegie Endowment for International Peace, Washington, D.C. \*\* Columbia University. She also serves as an independent consultant for the Eurasia Group and a consultant for the World Bank in Washington, D.C.  “America’s decline: A harbinger of conflict and rivalry” []http://www.eastasiaforum.org/2011/01/22/americas-decline-a-harbinger-of-conflict-and-rivalry/](http://www.eastasiaforum.org/2011/01/22/americas-decline-a-harbinger-of-conflict-and-rivalry/))

This does not necessarily mean that the US is in systemic decline, but it encompasses a trend that appears to be negative and perhaps alarming. Although the US still possesses incomparable military prowess and its economy remains the world’s largest, the once seemingly indomitable chasm that separated America from anyone else is narrowing. Thus, the global distribution of power is shifting, and the inevitable result will be a world that is less peaceful, liberal and prosperous, burdened by a dearth of effective conflict regulation. Over the past two decades, no other state has had the ability to seriously challenge the US military. Under these circumstances, motivated by both opportunity and fear, many actors have bandwagoned with US hegemony and accepted a subordinate role. Canada, most of Western Europe, India, Japan, South Korea, Australia, Singapore and the Philippines have all joined the US, creating a status quo that has tended to **mute great power conflicts**. However, as the hegemony that drew these powers together withers, so will the pulling power behind the US alliance. The result will be an international order where power is more diffuse, American interests and influence can be more readily challenged, and **conflicts or wars may be harder to avoid.** As history attests, power decline and redistribution result in military confrontation. For example, in the late 19th century America’s emergence as a regional power saw it launch its first overseas war of conquest towards Spain. By the turn of the 20th century, accompanying the increase in US power and waning of British power, the American Navy had begun to challenge the notion that Britain ‘rules the waves.’ Such a notion would eventually see the US attain the status of sole guardians of the Western Hemisphere’s security to become the order-creating Leviathan shaping the international system with democracy and rule of law. Defining this US-centred system are three key characteristics: enforcement of property rights, constraints on the actions of powerful individuals and groups and some degree of equal opportunities for broad segments of society. As a result of such political stability, free markets, liberal trade and flexible financial mechanisms have appeared. And, with this, many countries have sought opportunities to enter this system, proliferating stable and cooperative relations. However, what will happen to these advances as America’s influence declines? Given that America’s authority, although sullied at times, has benefited people across much of Latin America, Central and Eastern Europe, the Balkans, as well as parts of Africa and, quite extensively, Asia, the answer to this question could affect global society in a profoundly detrimental way. Public imagination and academia have anticipated that a post-hegemonic world would return to the problems of the 1930s: regional blocs, trade conflicts and strategic rivalry. Furthermore, multilateral institutions such as the IMF, the World Bank or the WTO might give way to regional organisations. For example, Europe and East Asia would each step forward to fill the vacuum left by Washington’s withering leadership to pursue their own visions of regional political and economic orders. Free markets would become more politicised — and, well, less free — and major powers would compete for supremacy. Additionally, such power plays have **historically possessed a zero-sum element**. In the late 1960s and 1970s, US economic power declined relative to the rise of the Japanese and Western European economies, with the US dollar also becoming less attractive. And, as American power eroded, so did international regimes (such as the Bretton Woods System in 1973). A world without American hegemony is one where **great power wars re-emerge**, the liberal international system is supplanted by an authoritarian one, and trade protectionism devolves into restrictive, anti-globalisation barriers. This, at least, is one possibility we can forecast in a future that will inevitably be devoid of unrivalled US primacy.

**DISAD - INNOVATION**

**COVID accelerated biopharma R&D Shah ‘20**

Neil Lesser and Sonal Shah 20, Shah is senior manager with the Deloitte Center for Health Solutions

within Deloitte Services LP and leads the center’s life sciences research, “Seeds of change,” https://www2.deloitte.com/us/en/pages/life-sciences-and-health-care/articles/measuring-return-frompharmaceutical-innovation.html

The COVID-19 pandemic has had a significant disruptive effect on clinical trial operations, with biopharma companies, clinical research organizations (CROs), and other research organizations being forced to shut down trials, suspend enrollment, or delay planned study startups or completions (an estimated 1,210 trials have been negatively affected across the industry). However, the pandemic has also accelerat[ing]ed the adoption of new approaches to R&D with the development of a number of novel COVID-19 vaccines and therapies in record time through extraordinary collaboration and partnerships, as well as a wider use of transformative approaches such as master protocols and adaptive trial design and the use of real-world data (RWD). The positive learnings arising from the COVID-19 pandemic have sown the seeds of change for a more productive future for biopharma R&D. Moreover, the accelerated development of COVID-19 therapies and vaccines is expected to have a positive impact on the internal rate of return (IRR) over the coming years.

**Intellectual property protections, or IPPs, through Patents promote innovation, tens of thousands of studies prove, Lybecker 14**  [Kristina Lybecker, prof of economics at Colorado College.] “How to Promote Innovation: The Economics of Incentives” 21 July 2014 (https://www.ipwatchdog.com/2014/07/21/promote-innovation-the-economics-of-incentives/id=50428/)

The **patents** system serves two primary functions: it **provide**s **an incentive for research** and development **and** promotes the **diffusion of ideas** and information. As described by Clancy and Moschini (2013), the incentive potential of patents stems from their private value which is a function of their length, scope and breadth. “The length of the patent is codified by law (twenty years from filing the application), although the effective economic life of the patent can be considerably shorter, and influences how long competitors can be excluded from a particular market. The scope of a patent is more subtle and concerns the breadth of its applications, which relates to the range of products or processes that can be excluded by a patent’s right (by the so-called doctrine of equivalents, a product might be found to infringe on a patented product even if it is not an exact replica). Unlike length, the breadth of a patent cannot be explicitly codified, and it is left to be determined by the patent’s claims, as approved by the patent examiners and ultimately adjudicated by the courts.”[8]

**Empirical evidence** from economic studies **confirms** that **patents** provide the incentives that **promote innovation** and the impact is particularly pronounced in some sectors.  Incentives matter. **This** claim **is bolstered by tens of thousands of** empirical economic **studies, a**nd not one that convincingly refutes it.

In a study of 60 countries over the period 1960-1990, **Park and Ginarte** (1997) **find that** the strength of **i**ntellectual **p**roperty **r**ights **was positively associated with research and development** (R&D) investments.[9],[10] Hall (2007) and Hall and Marhoff (2012) confirm the value of patents as important incentives for R&D in several sectors, including pharmaceuticals, biotechnology and medical instruments.[11],[12] In the context of product innovations, a recent study by Duguet and Lelarge (2Z012) concludes that “**overall**, **patents** do **increase** the private **incentives to innovate**, but through a specific, unbalanced, channel. Indeed, at the firm level, **the direct incentive** effect of patents is restricted to the firms’ R&D effort, which **affects** significatively their product **innovations**.”[13] The importance of patents to incentivizing innovation stems, in part, from their reliance on market forces, arguably **more so than any other incentive mechanism**. Patents leave all technical, developmental, and economic decisions in the hands of innovators and consumers. They work due to the wisdom of Adam Smith’s so-called invisible hand.

Steven Landsburg summed it up succinctly, “Most of economics can be summarized in four words: ‘People respond to incentives.’ The rest is commentary.”[14]

Innovation cannot happen without protections—five warrants.

**McDole and Ezell 21**

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World Through the Pandemic”; [https://itif.org/publications/2021/04/29/ten‐ways‐ip‐has‐enabled‐innovations‐have‐helped‐sustain‐world‐through](https://itif.org/publications/2021/04/29/ten), ITIF, accessed 7‐29‐2021; JPark

the pandemic, growing 4 percent from 2019.28 The top‐four nations, which accounted for 180,530 of the patent applications, were China, the United States, Japan, and Korea, respectively.29 While several countries saw an increase in patent filings, Saudi Arabia and Malaysia both saw significant increases in the number of annual applications, with the top two filing growths of 73 percent and 26 percent, respectively.30 The COVID‐19 pandemic slowed a lot of things, but it certainly couldn’t stop innovation. **There are** at least **five principal benefits strong IP rights** can **generate**, for both developing and

developed countries alike.31 **First, stronger IP protection spurs** the virtuous cycle of

**innovation by increasing** the **appropriability of returns, enabling economic gain and**

**catalyzing economic growth**. **Second, through patents**—**which require innovators**

**to disclose certain knowledge as a condition of protection—knowledge spillovers**

**build a platform of knowledge that enables other innovators.** For instance, studies

have found that the rate of return to society from corporate R&D and innovation activities is at least twice the estimated returns that each company itself receives.32

**Third, countries with robust IP** can **operate more efficiently** and productively **by**

**using IP to determine product quality and reduce** transaction **costs**. **Fourth, trade and**

**foreign direct investment** **enabled** and encouraged **by strong IP protection** offered to

enterprises from foreign countries **facilitates an accumulation of knowledge capital**

**within the destination economy. That matters when foreign sources of technology**

**account for over 90 percent of productivity growth in most countrie**s.33 There’s also

evidence suggesting that developing nations with stronger IP protections enjoy the

earlier introduction of innovative new medicines.34 And  fifth, strong IP boosts exports,

including in developing countries.35 Research shows a positive correlation between

stronger IP protection and exports from developing countries as well as faster growth

rates of certain industries.

**Decline of medical innovation risks extinction**

**Sachs** 8/17/**14**—Professor of Sustainable Development, Health Policy and Management @ Columbia University [Jeffrey D. Sachs (Director of the Earth Institute @ Columbia University and Special adviser to the United Nations Secretary-General on the Millennium Development Goals) “Important lessons from Ebola outbreak,” Business World Online, August 17, 2014, http://tinyurl.com/kjgvyro]

Ebola is the latest of many recent epidemics, also including AIDS, SARS, H1N1 flu, H7N9 flu, and others. AIDS is the deadliest of these killers, claiming nearly 36 million lives since 1981.

Of course, even **larger and more sudden epidemics are possible, such as the 1918 influenza** during World War I, **which claimed** 50-**100 million lives** (far more than the war itself). And, though the 2003 SARS outbreak was contained, causing fewer than 1,000 deaths, the disease was on the verge of deeply disrupting several East Asian economies including China’s.

There are four crucial facts to understand about Ebola and the other epidemics. First, most emerging infectious diseases are zoonoses, meaning that they start in animal populations, sometimes with a genetic mutation that enables the jump to humans. Ebola may have been transmitted from bats; HIV/AIDS emerged from chimpanzees; SARS most likely came from civets traded in animal markets in southern China; and influenza strains such as H1N1 and H7N9 arose from genetic re-combinations of viruses among wild and farm animals. **New zoonotic diseases are inevitable** as humanity pushes into new ecosystems (such as formerly remote forest regions); the food industry creates more conditions for genetic recombination; and climate change scrambles natural habitats and species interactions.

Second, **once a new infectious disease appears, its spread** through airlines, ships, megacities, and trade in animal products **is likely to be extremely rapid**. These epidemic diseases are new markers of globalization, revealing through their chain of death how vulnerable the world has become from the pervasive movement of people and goods.

Third, **the poor are the first to suffer and the worst affected**. The rural poor live closest to the infected animals that first transmit the disease. They often hunt and eat bushmeat, leaving them vulnerable to infection. Poor, often illiterate, individuals are generally unaware of how infectious diseases -- especially unfamiliar diseases -- are transmitted, making them much more likely to become infected and to infect others. Moreover, **given poor nutrition and lack of access to basic health services, their weakened immune systems are easily overcome by infections** that better nourished and treated individuals can survive. And “de-medicalized” conditions -- with few if any professional health workers to ensure an appropriate public-health response to an epidemic (such as isolation of infected individuals, tracing of contacts, surveillance, and so forth) -- make initial outbreaks more severe.

Finally, **the required** medical responses, including diagnostic tools and effective **medications** and vaccines, inevitably lag behind the emerging diseases. In any event, such tools **must be continually replenished. This requires cutting-edge biotechnology, immunology, and** ultimately **bioengineering to create large-scale industrial responses** (such as millions of doses of vaccines or medicines in the case of large epidemics).

The AIDS crisis, for example, called forth tens of billions of dollars for research and development -- and similarly substantial commitments by the pharmaceutical industry -- to produce lifesaving antiretroviral drugs at global scale. Yet each breakthrough inevitably leads to the pathogen’s mutation, rendering previous treatments less effective. **There is no ultimate victory, only a constant arms race between humanity and disease-causing agents.**

**In the affirmative world, we lose this arms race and risk deaths of hundreds of millions**