**NC**

**NC - Framework**

I negate Resolved: The member nations of the World Trade Organization ought to reduce intellectual property protections for medicines.

The moral principle for today's round in mind of the resolution is the promotion of the quality of life.

The conception of what constitutes quality of life is teleology. Teleology is a moral theory which determines moral institutions by whether they are justified by their actions in the mind of improvement for society, which, in this case, is quality of life.

**C1 – Saving Lives**

Having intellectual properties as they currently are saves lives through the three following ways:

The first is vaccination distribution.

Patents speed up and increase distribution of new medicines in developing countries.

**Hall 20**, Bronwyn H. Hall, May 2020, National Bureau of Economic Research, “Patents, Innovation, and Development”, 9/1, <https://www2.nber.org/system/files/working_papers/w27203/w27203.pdf>, Professor University of California Berkeley, page 21,

Turning to the diffusion of drugs that already exist in developed countries, the results are more positive. Cockburn, Lanjouw, and Schankerman (2016) examine 642 new drugs launched in 76 countries during the1983–2002 period. They find that price regulation delays the launch of such drugs, increasing the diffusion lag by 25 to 80 per cent. Longer and stronger product patents speed up launch, with long patents (those with lifetimes 18 years or longer) reducing the lag by 55 per cent. The results for process patents are more ambiguous ‐‐ although generally positive for launch, whether the term of process patents increases launch probability depends on the correction for endogeneity of the policy variables. Their results are similar for countries at all income levels. Kyle and Qian (2014) compare 716 drugs pre‐ and post‐ TRIPS compliance in 59 countries in the 2000‐2011 period. Like Cockburn et al., they find that **patent protection speeds launch**, **and** also that it **increases both the price and the quantity of the drug sold**. **Price discrimination across countries does not depend on whether the drug is covered by a patent, but the price premium for patented drugs declines after compliance with TRIPS**. **They suggest that policies to mitigate the impact of TRIPS in developing countries, such as price controls, may be responsible for this effect**.

The second is application and development.

Property rights are critical to helping further innovation.

**D’Amato 2014,** DAVID S. D’AMATO, May 28th, 2014, LIBERTARIAN, “Libertarians frequently disagree about the status of intellectual property. D’Amato explores the views of four major libertarian thinkers”, 9/1, <https://www.libertarianism.org/columns/libertarian-views-intellectual-property-rothbard-tucker-spooner-rand>, David S. D’Amato is an attorney, a regular opinion contributor at The Hill, and an expert policy advisor to the Future of Freedom Foundation and the Heartland Institute. His writing has appeared in Forbes, Newsweek, The American Spectator, the Washington Examiner, Investor’s Business Daily, The Daily Caller, RealClearPolicy, Townhall, CounterPunch, and many others, as well as at nonpartisan, nonpartisan policy organizations such as the American Institute for Economic Research, the Centre for Policy Studies, the Institute for Economic Affairs, the Foundation for Economic Education, and the Institute for Ethics and Emerging Technologies, among others. He earned a JD from New England School of Law and an LLM in Global Law and Technology from Suffolk University Law School. He lives and writes in Chicago,

The work of individualist anarchist Lysander Spooner presents a stark and noteworthy contrast to that of Benjamin Tucker. Eulogized by Tucker as “Our Nestor,” Spooner was a key influence on early American anarchism and continues to have an impact on the contemporary libertarian movement. Uncompromising in his methodical attacks on slavery and repressive legislation more generally, the polemics of this libertarian lawyer were always feisty and creative. He founded his American Letter Mail Company in 1844 as a rival to the monopolistic U.S. Post Office and attacked slavery on constitutional grounds only to turn around and attack the Constitution itself using generally accepted principles of contract law. Given his rare genius and durable stature as an important ancestor of modern libertarians, Spooner’s views on intellectual property rights have continued to inform the conversation surrounding the relationship between those rights and natural law. In his essay “The Law of Intellectual Property,” published in 1855, Spooner sets out to “understand the law of nature in regard to intellectual property,” a project he says must begin with “understand[ing] how and when wealth becomes property.” For Spooner, this distinction between wealth and property is important, with the former encompassing a broad array of things even “intangible and imperceptible,” and the latter reserved for wealth that an owner has converted into something “that is possessed” (emphasis in original). Property, Spooner writes, “is a right against the whole world,” and may embrace any “conceivable thing … which can be possessed, held, used, controlled, and enjoyed, by one person.” Spooner thus affirmatively answers the question of whether things like enjoyments, ideas, happiness, and feelings fall within the category as he has delineated it, concluding that all of these are susceptible to property. Since Spooner finds the foundation of property in each individual’s natural right to provide for her own subsistence and happiness, it is perhaps unsurprising that he regards “the right of property in intellectual wealth” as necessary and legitimate. **After all, ideas are no less important to the ends served by property than are labor and natural resources, which would remain idle and useless without the application of intellect and ingenuity**. Confronting the argument that a thing must have “corporeal substance” to be the subject of a property right, Spooner protests that **tangible, physical substances “are not the only things that have value”—that denying a property right in ideas is akin to arguing that an individual does not own her labor, also intangible. If labor is properly the subject of property, belonging to the individual and deserving of payment, then so too are ideas**, which he compares to the “new forms and new beauties” that human labor gives to physical objects. Engaging ideas from tort law, Spooner goes on to observe that health, strength, and the physical senses too are incorporeal, susceptible to loss “without the loss of any corporeal substance,” but are nevertheless “valuable possessions, and subjects of property.” A tortfeasor who impairs or harms these non‐physical qualities must make his victim whole, paying damages as compensation. For Spooner, then, **it is clear that property rights can (indeed, must) extend their reach beyond physical objects, that the acquisition of property itself depends fundamentally upon something that cannot be seen or touched, human effort**. Among the several other objections Spooner addresses is the common worry that “ideas have no ear‐marks,” that it is impossible, as a practical matter, to attribute ownership of an idea to an individual accurately or justly. To this, Spooner points to the fact that, as things are now, individuals regularly register ownership of their ideas, and “with a great variety of other evidence” demonstrate that ownership to tribunals with sufficient certainty and definiteness. Spooner thus denies that the density and plurality of inventions’ causes means that the ideas behind them cannot be owned by distinct individuals, arguing that this objection, if sound, would also apply to property in tangible objects. Spooner urges his reader to consider the gold miner in California, who is no less propelled and aided by the “general progress of science, knowledge, and art,” the gold he discovers no less owing to others who came before him. Spooner takes on perhaps the most common objection to intellectual property rights among libertarians today, that private property in corporeal commodities is justified only by the fact that these are rivalrous, that they “cannot be completely and fully possessed and used by two persons at once.” Carried to its logical end, Spooner says, this argument is nothing but communism, allowing any individual the right to take for himself and use freely anything he wants, regardless of whether he has produced it by his own labor. Spooner arrives at this conclusion by arguing that private property has its proper foundation not on the rivalrousness of tangible objects, but on the fact that the property in question is “produced by one man’s labor.” The opponents of intellectual property therefore undermine the entire basis for private property, establishing a principle that, Spooner argues, in fact applies equally well to corporeal commodities under certain circumstances. For example, railways, roads and canals may be used simultaneously by several people, and yet are proper subjects of private property. Having set out his own case for private property in ideas and carefully attended to many of the objections to such property, Spooner’s “The Law of Intellectual Property” remains a pivotal moment in the case for pro‐intellectual property libertarianism.

Patent protections by companies bring in Venture Capital investments, helping to increase support

for research.

**Graham et al. 10**, Stuart J.H. Graham, Robert P. Merges,Pam Samuelson, & Ted Sichelman, 4/16/10 2:59 pm, Berkley, HIGH TECHNOLOGY ENTREPRENEURS AND THE PATENT SYSTEM: RESULTS OF THE 2008 BERKELEY PATENT SURVEY, 9/1, <https://poseidon01.ssrn.com/delivery.php?ID=248031024064083081093117115066119101010040072058017034066064115120083089112082067066063000002000122001112002064109107080078092052047036085068085115100116084066024069084080026091008111116096001085103026118022111065024016092106092073087031028127087069&EXT=pdf&INDEX=TRUE>, † Assistant Professor, Georgia Institute of Technology, College of Management & Affiliated Scholar, Berkeley Center for Law and Technology, University of California, Berkeley, School of Law. †† Wilson Sonsini Goodrich & Rosati Professor of Law and Technology, University of California, Berkeley, School of Law. ††† Richard M. Sherman Distinguished Professor of Law, University of California, Berkeley, School of Law. †††† Assistant Professor, University of San Diego, School of Law & Affiliated Scholar, Berkeley Center for Law and Technology, University of California, Berkeley, School of Law, page 1279,

These inter-industry differences also persist among the venture-backed firms, where the incidence of holding patents is much higher and the origins of those patents are more varied. Table 1 shows that virtually **all** (**97%**) **companies in the biotechnology and medical device sectors hold patents**— and while holding patents is less likely for venture-backed IT firms (hardware and software alike), the rates are still relatively high (about 90% and 70%, respectively). **Venture-backed firms are much more likely to hold patents, regardless of** technology **focus**.70 In order to better understand the motivations for venture-backed companies to patent, we interviewed several partners at VC firms. One such partner holds an engineering degree, invests primarily in biotechnology companies, and has extensive experience in the technology, business, and investment environments in which his portfolio companies operate. He stated: When you go into life sciences—and in reality, with any [biorelated technology] that you’re creating or acquiring—if it doesn’t have a reasonably strong patent, and if you don’t have the capability to expand the patent estate covering your technology and products, you are going to have complicating issues. [As a young company], you need to secure patents, and with the broadest claims and specifications that you can get.71 These comments support two clear messages that spring from our responses. First, early-stage biotechnology companies are much more likely to use, and to see utility in using, the patent system. Second, **venture investors are interested in patents, and venture-capital backed companies are much more likely to hold and file for patents**. Whether this second observation is primarily driven by investors demanding a more active patent “footprint” of the companies they fund or by companies that VCs fund simply being more likely to supply patents to investors, we are unable to say with certainty. Our evidence points, however, to a relationship that runs both ways. **Firms that seek venturefunding appear to be patenting more actively prior to the funding event** (and for the purpose of securing funding), **and venture-capital investors appear much less willing to fund companies that hold no patents**.

And my final point is counterfeit medicine.

Intellectual property protections play a key role in protecting against counterfeit medicine.

**Ancevska-Netkovska et al 20**, Katerina Ancevska-Netkovska, Katerina Brezovska, Nikola Geskovski, Jasmina Tonik-Ribarska, Biljana Petrovska-Jakimovska, Blagoj Achevski, Katerina Goracinova, 2020, Institute of Pharmaceutical Chemistry, “The role of intellectual property rights and package safety features in the prevention of counterfeit medicines”, 9/1, <https://scindeks-clanci.ceon.rs/data/pdf/0004-1963/2020/0004-19632006332A.pdf>, Institute of Pharmaceutical Chemistry, Faculty of Pharmacy, University “Ss. Cyril and Methodius” Mother Teresa 17, 1000 Skopje, Republic of North Macedonia, Institute of Applied Chemistry and Pharmaceutical Analysis, Faculty of Pharmacy, University “Ss. Cyril and Methodius” Mother Teresa 17, 1000 Skopje, Republic of North Macedonia\ Institute of Pharmaceutical Technology, Faculty of Pharmacy, University “Ss. Cyril and Methodius” Mother Teresa 17, 1000 Skopje, Republic of North Macedonia, Alkaloid AD, Blvd. A. Makedonski 12, 1000 Skopje, Republic of North Macedonia, page 333,

The fast growth of counterfeiting medicines in the last two decades has created one of the biggest problems facing the pharmaceutical industry on the global level. This problem addressed from the pharmaceutical industry aspect is mainly seen as a problem of a trade competition by unauthorized use of the intellectual property of the pharmaceutical industry, resulting in loss of income, product withdrawal, loss of brand value, etc. (1). Also, the global rise in online **pharmacies**, **have widened the market for falsified drugs**, **which is a** serious **threat to public health and safety as falsified medicinal products bypass the** common **distribution routes and** easily **reach the public** (2). Therefore, this problem is much more significant if being addressed as a public health risk, because of the severe consequences that may cause to the patient's health starting from lower therapeutic potential to serious side effects that can result in death. Hence, this problem should be considered primarily from a public health perspective, but also as an intellectual property concern. Taking into account that counterfeiting of medicines is an organized crime, violating both the laws for the medicines and medical devices and regulations for the protection of the intellectual property rights of the pharmaceutical industry, the approaches for solving this issue should be based on an integrated and multilateral methodology. They should be supported by cooperation between the authorities involved, such as public health authorities and medicines agencies, as well as customs and police authorities at a national, regional, and international level, assisted by the pharmaceutical industry (3–7). **The** first **step that must be taken for the prevention of counterfeit medicines is the establishment, implementation, and enforcement of legislation and regulatory infrastructure** concerning: Legislation in the field of healthcare and pharmacy Legislation **in the field of protection of intellectual property rights**; Legislation in the field of trading – customs legislation, the legislation of transportation and storage; Legislation in the field of fight against organized crime – discovery and sanction of the falsified medicines; In July 2011, the European Union (EU) strengthened patient and consumer protection by the introduction of new directive 2011/62/EU also known as EU Falsified Medicines Directive (EU FMD) (8) aimed to prevent counterfeit medicines from entering the supply chain and reaching the patient. Тhe directive introduced harmonized safety and strengthened control measures throughout the whole of Europe by applying standards which include the introduction of safety features of the packaging of medicines, strengthened requirements for active substances and medicine distribution as well as regulation of internet sale of drugs (9). The Commission Delegated Regulation 2016/161 defines the requirements for the identification and confirmation system of the authenticity 334 of the medicines in the distribution chain using package safety features (Unique Identifier and Anti tampering device). According to this Regulation, the identity and authenticity of medicinal products are guaranteed by an end-to-end verification of all medicinal products bearing the safety features (10). To minimize the online-based falsified medicine frauds, the abovementioned Regulation and Directive also introduced a common logo for the websites of legal online pharmacies and approved merchants allowing the patients and consumers to easily identify authorized online pharmacies with approved and authenticated medicines. The **national laws regulate the protection of intellectual property rights, and** additionally, **the Trade-related Aspects of Intellectual property rights** (TRIPS) Agreement is applicable on an international level**. Pharmaceutical manufacturers have a crucial role in the prevention and** early **detection of counterfeited medicines**, **by** the establishment of a strategy for **the protection of their intellectual property rights** and by providing transparency and traceability with an application of new technologies for identification and confirmation of the authenticity of the products in all stages of the distribution chain. Intellectual property rights in the prevention of counterfeit medicines Intellectual property rights (IPRs) play a vital role in the modern economy, being a robust tool, for the protection of the investments, time, money, and effort of the intellectual property inventor, granting him an exclusive right for using his invention for a specific period. IPRs are defined as mechanisms for the protection of ideas, patents, and innovations, taking into consideration the protection of trademarks, industrial design, or copyrights in every link of the supply chain, and are an essential tool in the fight against counterfeit medicines (11). But, in consideration of the role of the intellectual property rights in the prevention of counterfeit medicines, the restricted period of validity of IPRs, and the exclusivity of the innovator's idea, the patent or the innovation must be taken into account. Additionally, the patent provides exclusive rights with a chance for industrial applicability of the innovation or achieving society value (12). The main issue of patent protection is the obligatory publication of technical information that can be useful for counterfeiters. The patent rights have invaluable importance, for the brand protection of pharmaceutical products as well as the protection of their trademarks. Pharmaceutical product brands are designed for the promotion and recognition of pharmaceutical companies, and also for gaining loyalty and trust by the customers. Branded products also dictate the market price when compared to non-protected, non-branded, and generic medicines, giving the benefit to the pharmaceutical industry from the investment in protection and conduction of suitable strategy for protection of 335 intellectual property. Patients are aware of paying a higher price for branded medicine, with gained trust in comparison to a medicine that has not been recognized as a brand (13). Building up a brand involves time and investment for every manufacturer, which in combination with a good marketing campaign, results in a dominant role in the market and enormous profit. Consumer opinion for the brand can change through time, in a positive or negative connotation. Unwanted events can cause damage to the image, and the value of the brand, so-called "brand erosion". Brand erosion phenomenon can be subtle and gradual or catastrophic and unexpected. Information about the counterfeited product, mentioning the name of the original brand and holder of corporate rights, may gradually project a negative image in the customer perspective, causing damage in the future marketing of the branded product. In these cases, the patients may search for alternative medicine from another manufacturer. Recovery of the market share loss and renewal of the image of the brand, requires additional marketing costs, causing profit loss. Furthermore, the downfall of the brand can reduce the confidence of the public in the pharmaceutical company, affecting the marketing of other products of the manufacturer. The price that pharmaceutical companies pay, as a result of the counterfeit medicines, is high. The effects of this phenomenon on the pharmaceutical industry include reduction of employment, reduction in the investments in research and development, and at the same time investment of a lot of money in marketing to rebuild the clients' trust. **Before being released for use and market, branded medicines manufactured by the pharmaceutical companies go through many regulatory filters to ensure that the products are safe, efficient, and of suitable quality**. Additionally, the pharmaceutical industry has to invest in building the trust of doctors, pharmacists, and the public and convince them that they are prescribing the best medicine for a patient's needs. By using the Internet, patients have easier access to information about the medicines and an option to participate in the selection of suitable medication for their needs. But the available information usually does not include the authenticity check of the medicine (14). If the quality and safety of medicines are questionable for the public then the trust in the whole medical system will be lost, harming the pharmaceutical industry as well, as financial loss.

Counterfeit drugs have deadly consequences.

**Stuart et al 07,** Terence P. Stewart, Esq., Elizabeth A. Argenti, Esq., Philip A. Butler, Esq., May 2007, Trade Lawyers Advisory Group, “THE CRISIS IN INTELLECTUAL PROPERTY PROTECTION AND CHINA'S ROLE IN THAT CRISIS”, 9/1, <https://www.uscc.gov/sites/default/files/Research/Crisis%20in%20IP%20Protection%20and%20China's%20Role.pdf>, Terence P. Stewart, Law Offices of Stewart and Stewart, page 12,

**While IP theft is** truly **a global problem, China is** widely **regarded as one of the worst offenders**. The United States Trade Representative (USTR) evaluated China’s IPR enforcement regime a few years ago and determined that China should be placed on its Priority Watch list in April 2005, which demonstrated that the U.S. government felt China was lacking in IPR protection and enforcement.57 Studies by non-governmental organizations also confirm that China is considered to be a severe offender. At the third annual Global Congress on Combating Counterfeiting and Piracy, held in Geneva in January 2007, **preliminary results from an OECD study summarizing seizure statistics showed that four countries were responsible for 62 percent of all reported seizures, with the largest percentage originating in China**.58 Additionally, a recent survey of 48 businesses found that China and Russia were perceived as the worst offenders in terms of their IP protections and enforcement.59 Finally, the most recent member survey by the American Chamber of Commerce in China (AmCham China) found that **55 percent of its** member **companies reported they were negatively affected by IPR violations in China, and 41 percent reportedly experienced increases in counterfeits of their goods over the past year**.60 As one author put it, China “seems to have become the ‘Godfather’ of counterfeiting – and is the mastermind behind the crisis.”61 The UK-based Anti-Counterfeiting Group estimates that **China is the source of 60 to 75 percent of the total counterfeit goods in global circulation**.62 This estimate is supported by U.S. and EU government statistics, which demonstrate the significant and disproportionate number of counterfeit goods that originate in China. In 2001, 46 percent of counterfeit goods seized at the U.S. border came from China, and the second-largest offender was Hong Kong at 10 percent.63 In 2003, China accounted for 66 percent of the goods seized at the U.S. border and this number had increased to 69 percent by 2005.64 Last year, the number increased even more with an astounding 81 percent of counterfeit goods seized at the U.S. border originating in China, and Hong Kong was still responsible for the second-largest amount at 6 percent.65 The EU statistics show a similarly large percentage of counterfeit goods originating in China, with China accounting for 60 percent of the seizures in 2003, 54 percent in 2004, and 64 percent in 2005.66 Japanese customs statistics show somewhat smaller amounts coming from China, but there have been dramatic increases in recent years, with China accounting for 7.9 percent in 2002 and increasing to 46.6 percent by 2005.67 To put these numbers in perspective, China currently accounts for approximately 20 percent of the world’s population, with 1.3 billion people.68 This percentage appears to be proportionately represented in U.S. import statistics, with China accounting for approximately 16 percent of all U.S. imports by value in 2006,69 yet 81 percent of all counterfeit goods seized that year originated in China. Similarly, while 13.4 percent of total EU imports came from China in 2005,70 the country accounted for a much larger percentage of counterfeit goods entering the EU at 64 percent. China’s counterfeit operations have achieved a great level of sophistication, which enables them to thrive so successfully in this area. For instance, Chinese companies not only manufacture copies of the branded products, but also duplicate the anti-theft devices used by companies to protect their innovations, such as holograms, which are devices commonly used for security protection.71 China is known to have one of the most highly sophisticated hologram manufacturing industries in the world.72 China also excels at copying packaging designs and security inks that are intended to differentiate the real products from the fakes.73 According to one author, “brand owners must accept that Chinese counterfeiters have the technical skills and equipment to copy almost anything and everything produced anywhere in the world including most protective deterrent and detection products.”74 There are some signs that China’s own appreciation for IPR is growing, which may be an important step in creating effective protection of foreign IPR. China’s modern IP framework is only about two decades old,75 which means that China is still cultivating an appreciation and understanding of IP rights.76 However, the Director General of the World Intellectual Property Organization (WIPO) noted in December 2006 that the Chinese are rapidly increasing the number of patents they file at WIPO, signaling an increased desire to protect their own IP rights.77 As China places more value on its own intellectual property and takes actions to protect local IP owners, the international community may also see a corresponding increase in its efforts to protect the rights of foreign entities.78 While this increasing appreciation for its own IPR by the Chinese government introduces some hope for the future, as it stands now, many U.S. industries consider IP theft to be a serious trade barrier with China. Companies are less inclined to invest in new projects in that region when they feel the investments are not provided adequate security, and the incredibly high rates of IP theft in China make it difficult for U.S. businesses to compete.79 The following sections highlight some of the challenges facing particular industries and identify, where possible, the industries’ perceptions of the problems in China. C. PHARMACEUTICALS **IP theft in the pharmaceutical industry is a growing problem that has serious repercussions on public health and safety**. Cancer medications, anti-malarial drugs, cholesterol medications, painkillers, antibiotics, HIV/AIDS drugs, Alzheimer’s medication, hormones, weight loss drugs, and blood pressure medications are just some examples of the fake products that have made their way into the supply chain. Counterfeiters target both brand name and generic pharmaceuticals, and it is often difficult, if not impossible, to distinguish the real from the fake using only the naked eye.80 Clearly, the **ramifications from receiving a fake form of one of these pharmaceuticals can often be deadly**. **The pharmaceutical industry is one of the few industries that estimates lost revenues due to inadequate patent protection in other countries**.81 **For 2005, the industry estimates that it lost over $7 billion in revenue from IP theft in 22 countries, with China accounting for the highest percentage of lost sales at 33 percent**.82 The production and sale of counterfeit drugs is the biggest problem facing the industry. However, there are also concerns in the industry regarding insufficient protection for pharmaceutical data. 1. Counterfeit Drugs **In 2003, 600,000 boxes of fake Lipitor, a cholesterol-lowering medication, ended up in American drugstores**, including Rite-Aid.83 **In 2004, at least 50 babies died and more than 100 were found to be severely malnourished in the Anhui province of China because they were fed fake milk formula**, containing as little as six percent of the vitamins and protein necessary for an infant’s growth and development.84 In that same year, a 22-year old woman in **Argentina was diagnosed with mild anemia and died after receiving highly-toxic, counterfeit iron injections**.85 **In 2005, two boys died from rabies in the Guangdong region of China, despite their parents’ belief that the boys had been vaccinated against such disease**.86 Police later found 40,000 boxes of fake rabies vaccine.87 In 2006, the U.S. Food and Drug Administration (“FDA”) intercepted 51 shipments of counterfeit Tamiflu, the most popular medication for both the treatment and prevention of the bird flu, which had originated in China.88 These examples demonstrate that production of counterfeit drugs covers a broad spectrum, incorporating an array of illegal and infringing activity. The most harmless, in terms of public health, involves copying a brand label and applying it to generic drugs. This allows the counterfeiter to benefit from the brand recognition and charge a higher price, which is detrimental to the brand owner’s reputation and results in significant lost profits but does not necessarily endanger the customer. A much more hazardous practice involves creating fake drugs that contain diminished levels of active ingredients, or even lack them entirely. Given these multiple aspects, WHO has developed the following definition for counterfeit medicine: a medicine, which is deliberately and fraudulently mislabeled with respect to identity and/or source. Counterfeiting can apply to both branded and generic products and counterfeit products may include products with the correct ingredients or with the wrong ingredients, without active ingredients, with insufficient active ingredients or with fake packaging.89 A working paper by the U.S. International Trade Commission (“ITC”) states that there are increasing reports of these fake and/or mislabeled drugs, which not only expose customers to serious health risks but also diminish consumer confidence in the global medical supply chain.90 Producing counterfeit drugs is a highly lucrative business, as there is high demand for the products yet low production costs.91 Medicine can be very expensive and people looking for cheaper options often fall prey to counterfeiters who target drugs that are known to be in high demand. This equation has resulted in the highest concentration of counterfeit drugs making their way into the developing world. It is estimated that less than one percent of medicine sold in developed countries are counterfeit drugs; in developing countries, estimates range from 10 to 50 percent.92 However, the developed world is certainly not immune to counterfeit medications. The European Commission states that it stopped 148 counterfeit drug shipments at EU borders in 2005,93 and that seizures of counterfeit drugs increased 1000 percent between 1998 and 2004.94 In the U.S., a doctor in St. Louis, Missouri prescribed Procrit to a married mother of six to help with her energy levels as she battled cancer.95 The family paid $500 for each weekly injection that they picked up at their local pharmacy. The drug worked well for a while but then seemed to stop. It turned out that the last batch they received was fake and did not have enough of the active ingredient to make an impact.96 The source was a counterfeit drug operation based in Miami and as many as 11,000 boxes of the fake Procrit had been distributed nationwide, with some even ending up in a well-known chain, CVS.97 The counterfeiters pocketed an estimated $28 million dollars, while the mother of six who was dying from cancer lost valuable time with her family.98 Additionally, in January 2007 police arrested the owner of Spin Quality Printers in Miami for his involvement in a large-scale illicit drug operation that focused on prescription medications for the treatment of HIV and the treatment of psychotic disorders such as schizophrenia.99 The owner of the printing business used his equipment to create fake labels by forging brand names, lot numbers, and even expiration dates, so that the drugs could be marketed as legitimate pharmaceuticals.100 Although the operation was based in Miami, investigators determined that these altered medications had been shipped throughout the country.10 While counterfeit drugs are clearly already a major global concern, many fear that the situation will only get worse. One study estimates that **counterfeit drug sales will increase annually by 13 percent** through 2010, a growth rate nearly double that for sales of legitimate pharmaceuticals.102 Given this growth rate, **counterfeit drug sales are expected to reach $75 billion** by 2010, **an increase of more than 90 percent from 2005**.103 Increasing use of the internet is one aspect that may help explain these escalating numbers, as online pharmacies are growing in number and estimates seem to agree that the majority of them are distributing counterfeit drugs. The high cost of prescription drugs, combined with a lack of health insurance, make the internet an attractive option for many consumers.104 However, a report by WHO states that medicines purchased over the internet from websites that conceal their actual physical address are counterfeit in over 50 percent of the cases,105 while a Columbia University study of 185 websites found that only 11 percent of the internet pharmacies were legitimate.106 A 30-year old man in Chicago experienced the dangers of buying drugs online in 2004 when he ordered $400 worth of Xanax and Ultram, a painkiller, to help with his back pain.107 He took one pill of each and woke up three weeks later in the hospital to learn that he had suffered a heart attack, fell into a coma and experienced brain damage as a result. The Xanax he ordered turned out to be four times the normal dosage, which proved to be an almost-lethal combination when taken with the Ultram.108 The more common example may be Viagra, which h appens to be one of the most frequently counterfeited drugs.109 The attraction to buying this drug over the internet is not surprising as customers are able to bypass a visit to their doctor, but they often receive illegitimate pills that may pose serious health risks.

The applications of counterfeit drugs are endless. From milk formulas to the covid vaccination, falsification of medicines can have dire effects and the only prevention is intellectual properties and therefore we must negate the resolution to save lives. Thank you. Now please go to the affirmatives side of the flow.