POISON **HOW BIG PHARMA'S RACIST PRICE GOUGING** KILLS BLACK AND BROWN FOLKS

For Tifanny Owens, who should still be here today, and for her Mother Gina Owens who we are honored to fight alongside.

Executive Summary

Health disparities experienced by Black and Brown communities are often discussed in terms of staggering data points and statistics. It is widely known that Black people are diagnosed at higher rates with conditions such as hypertension and diabetes, for example. However, racial and ethnic health inequities are evident not merely in numerical terms of disease prevalence, health outcomes, and life expectancy. Systemic racial discrimination targets Black and Brown people to the point that race itself could be considered a preexisting health condition. The avoidable inequalities created by structural racism concentrate health risk in Black and Brown communities and then block access to health care services, hamper public health initiatives, and leave aid and assistance to be meted out by inadequate charitable endeavors. Most egregiously, efforts by both government and medical industry leadership to address inequity place the blame and the onus upon these communities to address such health disparities, routinely shaming patients and making patronizing recommendations toward personal responsibility. The high cost of prescription drugs is a key part of this vicious cycle, and the role of Big Pharma's complicity in extracting health and wealth from Black and Brown communities is the focus of this report.

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The COVID-19 pandemic has brought the intersections of race, the economy, and public health into hyperfocus. As the Movement for Black Lives reignites global protests against state violence and structural racism, the United States is in the midst of unprecedented crisis and social justice movement building, with corporate accountability front

and center. Confronting price gouging as a cause of racial health inequity is long overdue. It is even more urgent today, as the U.S. government turns its back on international efforts to ensure affordable access to a COVID-19 vaccine and pharmaceutical giant Gilead prices its COVID-19 medication, remdesivir, at over \$3,000 for a course of treatment. It is now widely known that Black and Brown patients are dying at much higher rates of COVID-19 and of other diseases for which affordable treatment can and should be available.

About This Report

This report describes the ways racism makes simply being Black or Brown in the U.S. a preexisting condition and shows that price gouging by pharmaceutical companies is one of the root causes of health inequities. Across age and socioeconomic status, Black and Latinx people have worse health outcomes and less access to health services. Two conditions associated with heightened COVID-19 risk, diabetes and hypertension, exemplify the preventable harm to Black and Latinx communities from health inequities that are fundamentally rooted in structural racism.

- Compared to whites, Black people have twice the rate of hypertension and twice the mortality rate from diabetes
- Latinx people have twice the rate of diabetes of whites and are more likely to experience preventable diabetes-related kidney failure and vision loss
- Structural racism puts Black and Brown people at higher risk of hypertension every minute of every day, as toxic stress from the persistent threat of racial discrimination and violence takes its toll on Black and Brown bodies
- Within health care institutions themselves, racism concentrates the worst risks of uncontrolled diabetes—amputations, kidney failure, and blindness—in Black and Latinx communities
- Both hypertension and diabetes are manageable with appropriate access to prescription medications, but pharmaceutical price gouging that restricts access disproportionately affects Black and Latinx patients
 - Black and Latinx patients are more likely than white patients to ration diabetes and hypertension medications due to cost
 - Rationing medications leads to uncontrolled hypertension that triggers heart disease, strokes, and kidney disease
 - Rationing diabetes medications causes poor glycemic control, which can lead to amputations, kidney failure, and blindness
 - Eli Lilly hiked the price of its brand-name insulin, Humalog, 30 times in 20 years, including a 585% increase between 2001 and 2005
 - Valeant Pharmaceuticals bought the patent rights to two blood pressure drugs, Nitropress and Isuprel, and immediately raised their prices by 212% and 525%, respectively, while a company spokesperson referred to its duty to "maximize the value" for shareholders

Placing Blame on Patients

Published research on racial health inequities too often does not distinguish between race and racism, attributing higher rates of disease and early death to Black and Brown

people's genes, individual behavior, or culture. Both patient-blaming theories of biological race and pharmaceutical price gouging have ideological roots in racial capitalism. Racist junk science, motivated by a belief in the biological inferiority of Black and Brown people, lurks behind the search for genetic factors to account for the severity of COVID-19 in Black patients despite decades of research warning that structural racism is the fundamental cause of racial health inequities. The same racist analytical lens views Black and Latinx patients who are compelled to ration outrageously overpriced medications as "nonadherent" or "noncompliant" with prescribed medication regimens.

The devaluing of Black and Brown lives in this victim-blaming narrative is also present in the refusal by the right wing of the U.S. government to rein in the power of pharmaceutical companies to profit from price gouging. This report confronts the political history of pharmaceutical price gouging.

- Patent monopolies that give pharmaceutical companies control over pricing were introduced in the 1960s, as part of a right-wing project to empower private corporations and wealthy investors and weaken public-sector regulations and consumer protections
 - Government-funded research has always been the backbone of pharmaceutical breakthroughs, but monopoly patents privatize the profit from public knowledge
 - Every drug approved in the U.S. between 2010 and 2016 was based on research funded by the National Institutes of Health
 - Contrary to claims that drug company profits drive research and development, in 2018, the 10 largest pharmaceutical companies spent 167% of their net income on stock buybacks and dividends
- Pharmaceutical companies abuse an already corrupt patent system to extend drug patents and assemble tangled webs of intellectual property protection that stymie truly innovative medical research and keep inflated drug prices high and rising

Monopoly Power

The pharmaceutical industry deploys its monopoly power not only to profit from price gouging but also to ensure that the drug-pricing debate focuses on pharma-friendly "reforms" that merely conceal the damage of high drug prices. Promises of drug donations and proposals for insurance redesign to shift rather than eliminate inflated drug costs are distractions from the abuse of price gouging and the deep racial inequities it produces.

Politicians, physicians, medical journal editorial boards, health care professional associations, and patient advocacy groups all receive significant payments from the pharmaceutical industry.

The influence of pharmaceutical funding props up the narrative of profit-driven innovation while obscuring the racist impact of price

gouging, the enrichment of wealthy pharma investors, and the fleecing of the public sector for private profit.

Recommendations

The horrible abuses of the pharmaceutical industry cannot be allowed to continue if we want a functional society. We are in desperate need of a robust system of public medicine. While we work toward that, we make the following recommendations:

- Ensure medications and vaccines used to combat the novel coronavirus are offered free of charge
- Within agencies at the Department of Health and Human Services, designate systemic racism as a public health emergency
- Take measurable steps toward strengthening the public's ownership of medicines
- Issue reparations for past harms from the pharmaceutical industry
- Impose compulsory licensing



Introduction

As this report goes to press, Gilead's decision to charge over \$3,000 for remdesivir, a COVID-19 drug that was jointly developed by Gilead and federal research agencies, is reigniting debate about drug pricing in the United States. At the same time, COVID-19 itself has brought structural racism in the U.S. health care system to the foreground as Black and Brown communities bear vastly disproportionate levels of COVID-19 infections and death. Systemic race-based exclusion, discrimination, and violence in employment, housing, policing, and health care have created greater risk for COVID-19 exposure, infection, complications, and death in Black and Brown communities. Under the U.S. model of monopoly drug patents, Black and Brown people have also been exposed to more concentrated risk of price gouging by pharmaceutical companies.



"Even before the current pandemic, medication rationing was contributing to unconscionable levels of preventable complications and death from diabetes and hypertension in Black and Latinx patients."

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This report confronts the complicity of price gouging by pharmaceutical companies in racial and ethnic health inequities by bringing together two sets of research: data analysis showing that Black and Latinx patients are forced to ration medications at higher rates than white patients and historical analysis of the monopoly patent model, which gives private, for-profit pharmaceutical companies power over drug pricing. Price gouging excludes Black and Brown communities from access to medications for the chronic diseases that put patients at higher risk of death from COVID-19.

Drug-pricing debates often focus on what prices pharmaceutical companies should charge rather than whether pharmaceutical companies should have the power to set prices for medicine. The public interest in government-regulated pharmaceutical pricing is undeniable: \$33 billion in government-funded drug research makes most new drug discoveries possible; price gouging adds significant costs to public programs, like Medicare and Medicaid; and medication rationing due to high cost leads to avoidable complications and premature death, defeating the fundamental public health goals of prevention and health equity. The decision to rely on a monopoly patent model that cedes pricing power completely to pharmaceutical companies has always been motivated by neoliberal ideology. Medical innovation, the stated rationale for monopoly patents and inflated prices, is stymied by the maze of intellectual property protections that protect private pricing power. The profits that ostensibly incentivize research and development for breakthrough medicines actually flow directly to Wall Street in the form of stock buybacks and dividend payments. A steady stream of political contributions and payments to researchers and medical providers props up the narrative of private profits as "the price of progress." This rationale dismisses the damage, disproportionately afflicting Black and Brown communities, that results from price gouging essential medications.

Our Preexisting Condition: Race

COVID-19 has shined a light on long-standing health inequities that harm Black and Latinx communities. The higher prevalence and mortality rates of Black and Latinx COVID-19 patients mirror the heightened incidence of diabetes, hypertension, heart disease, and other illnesses that put Black and Brown people at greater risk for COVID-19 complications and death. At the root of the United States' social and economic system is the plunder of wealth and health from



Black and Indigenous people and other people of color to enrich wealthy white individuals and institutions. The much-discussed economic and health disparities experienced by



these communities are the result of this targeted racial discrimination. Yet the disproportionate effect of prescription drug price gouging on Black and Latinx communities is rarely mentioned, even as the competition for COVID-19 vaccines and cures puts pharmaceutical companies at the center of attention. Across insurance status, age, and disease type, Black and Latinx patients report higher rates of medication rationing—forgoing or delaying filling a prescription, skipping doses, and reducing doses below the prescribed amount due to cost. Even before the current pandemic, medication rationing due to inflated prices was contributing to unconscionable levels of preventable disease and death in Black and Latinx communities. This should be a forewarning of the likely barriers

to access to COVID-19 vaccines and medicine and of the empty promises of pharmaceutical companies to mitigate the harm of their own practices.

Consider diabetes and hypertension, two conditions that appear to be strongly associated with COVID-19 mortality and that disproportionately afflict Black and Latinx people.

- Black people are twice as likely as whites to have hypertension, are more likely to experience the onset of hypertension at younger ages, and are more likely to experience severe complications
- Latinx hypertension patients are less likely than white people to have their blood pressure controlled, and Mexican Americans are more likely to die from hypertension^{vii}
- Black and Latinx people are both more likely than whites to have diabetes and more likely to die from diabetes
- Latinx patients have higher rates of diabetes-related kidney failure and vision loss^{viii}
- Black people with diabetes have higher rates of kidney failure and amputations^{ix}

A strong body of evidence shows that high levels of stress due to racial and ethnic discrimination, including that involving police encounters, are associated with elevated blood pressure and high levels of inflammation (which is a characteristic of diabetes, hypertension, and COVID-19) in Black and Latinx people. The heightened vigilance and

anticipatory stress that characterize Black and Latinx people's attempts to cope with persistent but unpredictable threats of racism in their daily lives trigger stress responses that over time can cause or worsen cardiovascular and cardiometabolic disease.^x

Racism contributes to the development of hypertension and diabetes, and price gouging blocks Black and Latinx patients from accessing treatment. Diabetes and hypertension are manageable chronic diseases for which the standard of care includes prescription medications to control symptoms and avoid complications. In surveys of medication use, Black hypertension patients report more medication rationing due to cost than do white patients. Xi Analysis of pharmacy claims and patient registry data confirms that Black and Latinx patients experience more barriers to either filling or routinely refilling prescriptions for diabetes and hypertension medications. Xii

Price gouging that restricts access to medications literally costs Black and Brown people their lives and limbs. Whereas taking the proper doses of anti-hypertensive medications has been shown to reduce cardiovascular mortality, xiii medication rationing is "a leading cause of inadequate hypertension management leading to cardiovascular disease, stroke, and chronic kidney disease."xiv Restricted access to affordable hypertension medication is one reason that overall decreases in cardiovascular disease mortality in the U.S. have not been equally seen by Black, Latinx, and white people.xv



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Diabetes medications are among the most expensive among all chronic disease medications, and insulin users in particular are most likely to report medication rationing. The same racist policies and Latinx diabetics are more likely than whites to use insulin and more likely to report that they skip or reduce doses of diabetic medications due to cost. Underusing necessary diabetes medications is a major cause of poor glycemic control, which is, in turn, a cause of vascular disease that can (though, with proper and timely treatment, usually should not) lead to amputations, kidney failure, and blindness. A ProPublica investigative report on racism in U.S. diabetes care documents a systemwide disinvestment in diabetes-related vascular disease prevention that drives the "epidemic of amputations" in Black communities. The same racist policies and practices also increase the risks of other diabetes-related vascular complications, such as kidney disease, retinopathy, and blindness, all of which disproportionately afflict Black and Latinx patients. This pattern of treatment amounts to systemic neglect of and inhumanity for the health of these patients.

But the academic literature on racial disparities generally discusses "race" rather than racism and avoids the topic of price gouging by pharmaceutical companies altogether. Too often, researchers shift responsibility for medication access onto Black and Latinx patients. **XI The language of medication "nonadherence" and "underuse" conveys this assumption of individual failings and echoes the Trump administration's victim blaming that attributes susceptibility to COVID-19 to the unhealthy "culture" of immigrant Latinx meat plant workers and the individual behavior of Black people. **XIII



Yet, mainstream research does recognize the high stakes of medication rationing. One study acknowledged that racial inequities in health outcomes are due at least in part to "persistent problems in getting necessary medications that eventually lead to the most debilitating effects of unmanaged chronic illness." Researchers tend to identify at the root of these persistent problems some version of the "financial wherewithal to pay for prescription medications." This explanation obscures the fundamental factor of wealth extraction from Black and Brown communities. Most notably, the history of residential segregation and racial and ethnic discrimination in employment, wages, and access to basic goods and services in the U.S. drives a racial wealth gap that gives white households greater

"financial wherewithal."xxv Structural barriers to Black and Brown wealth attainment and intergenerational progress expose Black and Brown households to greater economic insecurity, which makes them more vulnerable to the price-gouging tactics of pharmaceutical companies. xxvi As a mechanism to maximize profit and enrich pharmaceutical company investors at the expense of Black and Brown health and wealth, drug price gouging is itself another instance of the same process of wealth extraction. The profits accumulated from price gouging further enrich wealthy investors, feeding the cycle of wealth extraction and exploitation.

The History and Politics of the Pharmaceutical Patent Monopoly Model

Along with attention to racial and ethnic health inequities, the COVID-19 pandemic has directed public awareness to the complexity of the health care supply chain. The complexity of the pharmaceutical industry, from research and manufacturing to regulatory approval and insurance negotiations, has been used to muddy the waters of debate over medication access for decades. What appears plainly as price gouging—triple-digit-percentage increases in lifesaving drugs that have existed for years or astronomical markups from the cost of drug production—are explained away as one piece of a complex process that leads to innovative medicine that would otherwise be undiscovered and unavailable to treat sick people around the globe. The unstated assumption behind the "myth of the price of progress" is that the current pharmaceutical pricing regime arose naturally, as the best possible solution to produce

the best possible medicines to meet the most pressing health care needs. Demands for changes to the status quo to make drugs affordable are greeted with patronizing explanations of how such well-meaning policies would inevitably result in the opposite: higher prices for more people and fewer medical breakthroughs for everyone. Such demands "represent an easy but wrongheaded way to avoid the messy work of constructing a system to incentivize medical breakthroughs and make them widely available in the context of 21st century economic realities," according to one such admonishment.*

The actual political history of the U.S. pharmaceutical industry and its complicity in racial health inequities is obscured in the heroic tales of market-driven discovery and in the scolding dished out to its critics. So, too, is the racism embedded in "21st century economic realities" hidden in plain sight. The pricing power of private pharmaceutical companies was deliberately created by free-market ideologues, not to incentivize medical breakthroughs but to empower private corporations as a counterforce to public-sector regulations and consumer protections. **XXIX** Apologists for unchecked corporate power repeat the myth of the price of progress more loudly as the evidence accumulates that the "innovation" that high drug prices are purportedly paying for amounts mostly to stock buybacks, executive compensation, and a flood of expensive new drugs with no demonstrated efficacy over established standards of care. **XXX

The Origins of Patent Monopolies in the Pharmaceutical Industry

The history of patent monopolies in the pharmaceutical industry is a history of the gradual ceding of public control of public goods—drugs developed by government-funded research—to private companies. Drug patents granted to private entities were rare before 1968, when the Institutional Patent Agreement gave universities the right to own

patents on federally funded drug discoveries. **xxii* Those universities were then free to sell the licenses to manufacture new drugs to the highest bidder. **xxii* The New Deal agencies that originally boosted U.S. medical research and vaccine development had required private contractors to assign intellectual property rights from publicly funded research back to the government. **xxxiii* Since 1968, free-

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market ideologues have cast aside New Deal—era concerns about the corruption of medical research by "undue concentration of economic power in the hands of few large corporations" and doubled down on the maximization of private profit from public research by

- Expanding private patent rights for drugs developed with federal funds to all private contractors in the Bayh-Dole Act of 1980;xxxv
- Extending licenses and granting tax breaks for "rare diseases" in the 1983 Orphan
 Drug Act, under which remdesivir, Gilead's treatment candidate for COVID-19
 (perhaps the *least* rare disease ever), briefly qualified for seven-year market
 exclusivity and federal grants and tax credits to reimburse clinical testing costs;
- Extending drug patents from 17 to 20 years in the 1995 Uruguay Round Agreements Act; XXXVIII
- Prohibiting Medicare from negotiating lower drug prices in the Medicare Modernization Act of 2003;**xxviii and
- Facilitating direct-to-consumer drug marketing in the Food and Drug Administration (FDA) Modernization Act of 1997.xxxix

This is not a history of abandoning a just system for an unjust one, however. There is no golden age of truly equitable U.S. drug policy, and the development of pharmaceutical drugs is marked by racist and gendered exploitation. In the 1940s and '50s, when U.S. government officials were strongly insisting on "public control over patents" on vaccines and other medicines, Black and Brown people were excluded from "the public" by laws restricting every aspect of their lives and by the racial violence that enforced segregation and exclusion. The government's commitment to publicly funded and controlled medical research included medical experiments on Black and Brown bodies, like the deliberate withholding of medication in the U.S. Public Health Service—funded Tuskegee syphilis experiments on Black men from 1932 to 1972 and the deliberate, sometimes fatal, infection of healthy Guatemalan men, women, and children in experiments from 1946 to 1953. While some in the federal government

fretted over the misuse of patented medical breakthroughs, a private surgeon was surreptitiously removing cancer cells from the body of Henrietta Lacks, without informing Lacks or her family. **Iii* The cells have been used for decades thereafter to develop profit-making drugs to treat cancer and other diseases. **Iiii* This history must be the interpretive lens for understanding victimblaming statements attributing medication rationing and poor health in Black and Brown communities to "noncompliance" with medical experts and mistrust of medical authority. It must also guide a forward-thinking, explicitly antiracist solution to pharmaceutical price gouging that recognizes the racism in the New Deal—era public drug development system.



Maximizing Profit Extraction: Abuses of the Patent System

Economic historian Edward Nik-Khah sums up the ideological roots of the monopoly patent model by noting, "Pharma was the perfect test case for a neoliberal project that celebrates markets, but is fine with large concentrations of power and monopoly."xliv Patents grant a temporary monopoly, but corporate power, once concentrated, rarely accepts such limits. The decision to transfer public knowledge to private profit-making



corporations also transferred power. Pharmaceutical companies have used that power to extend patent monopolies far beyond the 20 years originally granted, all while maintaining the \$33 billion in annual government-funded drug research that makes new discoveries possible. XIV Every drug approved in the U.S. between 2010 and 2016 was based on National Institutes of Health—funded research. XIVI The patent system privatizes the return from this public investment, and pharmaceutical companies further abuse patent law to perpetuate their monopoly power and continue profit-maximizing price gouging.

The Initiative for Medicines, Access, and Knowledge (I-MAK) submitted public comments to the Federal Trade Commission in 2018 warning that "people worldwide—including in the United States—are not receiving the lifesaving treatment they need due to skyrocketing prices based on the abuse of the patent system."xlvii I-MAK outlines the abusive practices that the pharmaceutical industry uses to "secure the market on entire diseases and artificially inflate the price of treatment."xlviii By obtaining multiple patents, pharmaceutical companies delay or block generic competition for decades, keeping cheaper medications off the market without improving treatment in any way. I-MAK found that the 12 best-selling drugs in the U.S. have an average of 135 patent applications and 71 approved patents per drug. A member of I-MAK, Tahir Amin, pointed out that the decline of pharmaceutical industry investment in new antibiotics to treat drug-resistant infections, an urgent global health crisis, coincides with pharmaceutical companies' strategic decision to "spend more time finding ways to keep existing drug franchises profitable."xlix We could say the same about the indifference to preventing diabetesrelated amputations and avoidable deaths from chronic disease in Black and Brown communities in the United States. In a familiar trend, the financialized pharmaceutical



sector directs more of its profits toward enriching shareholders and building "a tangle of IP protections" to block access to the discoveries it already owns than to productive uses, like research and development, or reducing the inflated prices that put lifesaving medication out of reach of Black and Brown patients.

Destructive Financial Innovation

Genuine innovation to improve medical treatment is actually impeded by the defensive patent portfolios deployed by pharmaceutical corporations to protect profits and market power. In his history of pharmaceutical financialization, investigative journalist Alexander Zaitchik conveys the frustration of vaccine researchers who confront "legal labyrinths" and "proprietary black boxes" that obstruct the "natural flow of scientific discovery." The enormity of pharmaceutical companies' stock buybacks and executive compensation packages is further evidence that the monopoly pricing power bestowed on the pharmaceutical industry does not lead to medical innovation. Far from incentivizing private-sector research and development to produce new and better drugs, pharmaceutical industry profits have fueled a cycle of financialization in which profitgenerating price gouging attracts capital investment, which is rewarded with stock buybacks and dividends that directly enrich shareholders and executives while further boosting the stock price. III 1018, the 10 largest pharmaceutical companies spent 167% of their net income on stock buybacks and dividends. Eli Lilly alone spent \$6.5 billion on buybacks and dividends in 2018—equivalent to 68% of its revenue from diabetes drugs. liii The Black and Latinx diabetes patients who are rationing insulin and other medications are not reaping the benefit of Lilly's reinvestment of profits into "innovation." Instead, they pay inflated prices to keep the stock price high and the buybacks and dividends flowing to pharmaceutical company executives and stock market speculators. Monopoly patents and pharmaceutical company price gouging thus perform a familiar function in racial capitalism: enriching corporate elites and wealthy investors at the expense of Black, Brown, and poor people.

A financialized pharmaceutical industry measures success in profitability rather than benefits to patients. The blockbuster innovations that are touted as proof of the social return on high drug prices are, far too often, bogus. Of the anticancer drugs approved by the FDA between 2014 and 2019, 67% were approved based on flawed clinical trials that did not demonstrate efficacy over the usual standard of care and failed to address whether patients who take the new drug live longer or better lives. In As long as we entrust a financialized pharmaceutical industry with control over vital medicines, we can expect this pattern of putting profit over patients to continue—even as emerging diseases create greater need for reliable science conducted in the public interest. The COVID-19 pandemic has already provided examples of pharma boosting stock prices by promoting dubious benefits from shoddy research, as in the case of Gilead's single-day 2% stock-price bump on July 10 from outsized claims of new effects on COVID-19 mortality based on "deeply flawed" methodology. In mortality based on "deeply flawed" methodology.

Buying Silence

A steady stream of contributions to politicians and lobbyists, researchers and physicians, and patient advocacy groups keeps the charade of "progress from profit making" going. A study in 2020 that examined payments to leaders of professional medical associations for

the 10 costliest diseases in the U.S. found that 72% had financial ties to pharmaceutical and device companies. Vi Over half of the editors at influential U.S. medical journals receive payments from pharmaceutical and device manufacturers. These editors "wield enormous power" over "the content and conclusion of what appears in their journals," and that content can "speed regulatory approval, boost sales, and increase stock price."

Individual pharmaceutical companies and their trade associations also spend hundreds of

millions of dollars on lobbyists and campaign contributions. In 2019, the Pharmaceutical Research and Manufacturers of America spent \$29.3 million on lobbying, and Pfizer alone spent \$11 million in the same year. Viiii Pharmaceutical manufacturers also reported \$11 million in contributions to support candidates for federal office. Iix But

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pharmaceutical companies do not report the tens of millions of additional dollars they donate to politically active patient advocacy groups—at least \$162.6 million from 26 publicly traded companies in 2015, according to the Pre\$cription for Power database that collects data from Internal Revenue Service filings of nonprofit patient advocacy groups. Pharmaceutical industry backing creates conflicts of interests in patient advocacy organizations, whose constituents are directly harmed by price gouging. The National Health Council, which represents patient advocacy organizations, repeats an obfuscating line about complexity, insisting, "We're in an environment where all the stakeholders are blaming each other . . . because of escalating costs." But only one stakeholder has monopoly power over drug prices: the pharmaceutical industry that also contributed 62% of the National Health Council's 2016 budget. Ixi



Payments to provider and patient groups, journal editors, and politicians and political parties help the pharmaceutical industry control the discourse about drug prices. Within the echo chamber of the pharmaceutical industry's "price of progress" talking points, highly limited, self-serving, or counterproductive "solutions" appear as powerful measures to improve access to medications. Promises of donations of vaccines and treatment do little to mitigate the harm

from monopoly pricing, for example, but pharmaceutical companies eagerly offer donations while refusing to negotiate lower prices for desperately needed medicine. As Jason Cone of Doctors Without Borders argued after rejecting Pfizer's offer to donate pneumonia vaccine doses to the organization, corporate drug donations cannot secure a timely, reliable supply of the drugs that are needed when people need them. The conditions attached to the use of donated medicines, the cover that "donations" provide to price gouging by drug companies, and the suppression of lower-priced competitors that might offer routine access to affordable medicines all led Cone to conclude that "free is not always better." The American Diabetes Association reached a similar conclusion

about pharmaceutical companies' patient assistance programs, stating that such measures are "not deemed to be a long-term or comprehensive answer to the rising cost of insulin for the vast majority of people with diabetes." Patients themselves describe the "all-consuming" search for new coupons and discounts and the "primal fear" that their precarious dependence on these corporate public relations programs provokes.

When policy debate on high drug prices takes place, it tends to be directed at "managing costs" and insulating patients from the burden of high prices rather than challenging the abuses of monopoly patents for profit maximization. Changing insurance-benefit design to reduce patient copayments does nothing to help uninsured people in the U.S.—still disproportionately Black and Brown—and simply shifts an unjustifiably inflated price to insurers and public health care programs. Similarly, calls for encouraging changes in providers' prescribing patterns to favor lower-priced drugs risks withholding clinically appropriate treatment, all without addressing the fundamental problem of pricing. Black and Brown patients already face interpersonal and structural racism in prescribing decisions of medical professionals. Intervening in drug pricing by placing more obstacles in the way of access to medications and offering additional justification for interpersonal and structural racism within health care systems is likely to further exclude Black and Brown patients from access to treatment. These cost management proposals are a distraction. As the Partnership for Quality Care, a coalition of health care employers and labor unions, concluded, "The pricing stands in the way of achieving the public health benefits that these drugs promise." lxvi



Pharmaceutical industry backing creates conflicts of interests in patient advocacy organizations whose constituents are directly harmed by price-gouging.

Proposals for reforms that merely cushion the blow of high drug prices—and that notably ignore their excessive harm to Black and Brown communities—leave intact the monopoly patent system that empowers for-profit pharmaceutical companies to control prices absolutely. Calls for exceptions to patent monopolies during recognized

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emergencies, like the COVID-19 pandemic, highlight the refusal to acknowledge the constant state of emergency that Black and Brown people must navigate every day. |xvii | Temporary safe harbors from the health effects of price gouging—like donations, discounts, and caps on copayments—keep power in pharmaceutical company hands despite decades of evidence that those companies cannot be trusted to put public health before private profit.

Big Pharma's Top Profiteers

The global pharmaceuticals market is one of the world's largest, with nearly \$1 trillion in sales annually. The highest-grossing corporations, executives, and investors see chronic diseases, like diabetes, and pandemics, like COVID-19, as an opportunity to maximize their profits. They use their money, power, and relationships to influence policies beneficial to themselves, such as patent law; lobby at the local and federal levels; and contribute millions to candidates that will favor their bottom line. Individuals and companies have amassed extravagant wealth through their exploitative business practices.



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Excessive Executive Compensation and Shareholder Returns: An Enormous Transfer of Wealth

These five companies—Eli Lilly, Gilead, Bausch, AbbVie, and Pfizer—had combined 2019 revenues of **\$138.4 billion**. Their top five highest-paid executives received more than **\$277 million** in total compensation in 2019. Ixviii

The emphasis on shareholder returns is a powerful driving force behind price gouging, patent abuse, and other exploitative pharmaceutical industry practices. Vanguard, BlackRock, and State Street are the top three largest shareholders across the five companies, with holdings worth a total of \$105 billion. Shareholders profit from the abuses of the industry and bear responsibility.

- Vanguard owns shares valued at \$42.9 billion
- BlackRock owns shares equaling more than \$38 billion
- State Street owns shares totaling about \$24.1 billion



Eli Lilly and Company

Headquartered in Indianapolis, Eli Lilly had \$22.3 billion in revenues in 2019. Let CEO David Ricks took \$21.3 million in total compensation in 2019; the top five most highly compensated Eli Lilly executives took a combined total of \$50 million. Lexi

A notable former Eli Lilly executive is Alex Azar. Before Donald Trump appointed Azar as head of the Department of Health and Human Services, he was president of Eli Lilly's U.S.

division. Under Azar's watch, the price of the company's analog insulin_doubled. Now he is tasked with overseeing the government's plan to "lower" those same prices.

Eli Lilly is one of the three largest insulin manufacturers in the world. Lilly's brand-name insulin, Humalog, first sold in 1996 for \$21 per vial, and without any change in the drug itself, the price continued to rise, costing almost \$300 per vial in 2018. Lilly's "competitors" are Novo Nordisk and Sanofi, but the three companies have raised insulin prices in near lockstep, leaving patients with no lower-cost option. Continual price hikes and reports of deadly insulin rationing triggered several state investigations and class action lawsuits:

- In 2017, a class action lawsuit on behalf of patients who use insulin accused Eli Lilly, along with Novo Nordisk and Sanofi, of engaging in an "arms race" to inflate list prices of insulin. Two months after the suit was filed, Lilly again raised the price of its brand-name insulin, Humalog, by 7.8%. In 2019, a New Jersey judge allowed the lawsuit's claims of state consumer protection law violations to proceed. Ixxv
- The Attorneys General of Kentucky and Minnesota separately sued Eli Lilly, Novo Nordisk, and Sanofi in 2018 alleging pricing practices that violate their states' consumer protection laws. lxxvi
- Harris County, Texas, also sued Eli Lilly, Novo Nordisk, and Sanofi, alleging a"15-year scheme" to rig insulin and Trulicity prices that cost the county millions of dollars annually in state government health care spending. https://link.insulin.insu
- After negotiating compromise language in the Alec Smith Insulin Affordability Act, named for an uninsured 26-year-old man who died after rationing his insulin in 2017, the Pharmaceutical Research and Manufacturers of America sued the State of Minnesota on behalf of Eli Lilly, Novo Nordisk, and Sanofi to block enforcement of the law. hxxviii

The trade group's lawsuit argues that "a state cannot simply commandeer private property to achieve its public policy goals," arrogantly dismissing the experience of patients with diabetes—disproportionately Black and Latinx—whose lives are threatened precisely by the designation of a lifesaving drug as "private property." Ixxix

Alec Smith's mother, Nicole Smith-Holt, said, "[Diabetes] is a treatable, manageable disease, and people shouldn't be dying from it because they should be able to afford their life-saving medication. . . . Without it they die." laxx

Gilead Sciences, Inc.

Headquartered in Forest City, California, Gilead had \$22.4 billion in revenues in 2019. Kexxi Chairman and CEO Daniel O'Day took \$29.1 million in compensation in 2019; the top five highest-paid executives in the company took a combined total of \$58.9 million.

Remdesivir Profiteering

Gilead has been in the headlines for its COVID-19 drug, remdesivir. While it was still being tested as a possible treatment, leaked anecdotes from ongoing studies added \$35 billion to Gilead's market capitalization. An analyst from SVB Leerink speculated, "This seems a generous amount of credit for a product that the company has specifically stipulated will not be sold for a profit, but investors may be discounting that commentary" [emphasis added]. || Ixxxiii |

A month later, Gilead announced the price of remdesivir: \$3,100 per patient. The original discovery of remdesivir as a candidate for the treatment of ebola, SARS, and MERS was accomplished with \$75 million in National Institutes of Health funding, laxxiii and the U.S. government has invested \$30 million in clinical trials of remdesivir in COVID-19 patients. Moreover, the Institute for Clinical and Economic Review noted that Gilead had been developing remdesivir as a treatment for hepatitis C, and the company has recouped much of those development costs from its sales of other hepatitis C drugs, like Sovaldi and Harvoni. Laxxiv

Sovaldi and Harvoni Price Gouging

Gilead priced Sovaldi at \$84,000 in the U.S., a price that was deemed unaffordable by most state Medicaid programs despite its 90% cure rate, leading the House Committee on Energy and Commerce to point out that "a treatment will not cure patients if they cannot afford it." IXXXVI

Blocking Access to HIV Medications

A class action suit filed by HIV/AIDS activists alleges that Gilead conspired with other pharmaceutical companies to exclude cheaper generic ingredients in HIV drugs to force higher prices. IXXXVIII Gilead's Complera combination antiviral treatment could have been sold for half its \$35,000-per-year price if it used those generic components, according to the lawsuit. IXXXVIII

Another lawsuit alleges that Gilead hid evidence of kidney and bone damage from its older, TDF-based HIV drugs while suppressing development of less toxic, TAF-based drugs in order to maximize profits from the patents on its older, riskier drugs. |xxxix|

Truvada Patent Infringement

The U.S. Department of Justice filed a lawsuit against Gilead in August 2019 alleging that the sale of Truvada and Descovy for use as HIV/AIDS preexposure prophylaxis (PrEP) infringes on patents assigned to the U.S. Department of Health and Human Services.xc

Cancer Drug Price Gouging

- Gilead set a price of \$373,000 for its cancer treatment, Yescarta, which investment-advice website the Motley Fool suggested "could meaningfully offset Gilead Sciences' declining hepatitis C drug revenue next year."xci
- In 2018, the National Institute for Health and Care Excellence deemed Yescarta too expensive to justify coverage by Britain's state-funded health service. xcii
- In December 2019, a jury found that Gilead subsidiary Kite Pharma violated a patent from Memorial Sloan Kettering Cancer Center when developing Yescarta.xciii

Bausch Health

Bausch Health is the post-scandal name of Valeant Pharmaceuticals, which became notorious for its business model of acquiring makers of existing drugs and hiking prices while spending less on research than any other pharmaceutical company. Headquartered in Quebec with U.S. operations based in New Jersey, Bausch had \$8.6 billion in revenues in 2019. xciv CEO Joseph Papa took \$17.1 million in total compensation in 2019; the top highest-paid executives took a combined total of \$35.1 million.xcv



Price-Gouging Business Model

Before changing its name to Bausch Health, Valeant Pharmaceuticals faced scrutiny over its pattern of buying up other drug companies, laying off workers, loading up on debt, and jacking up the prices on its acquired portfolio of drugs.

- After acquiring two drugs for the rare condition Wilson's disease in 2015, Valeant hiked the price of Syprine from \$1,395 to \$21,267 and the price of Cuprimine from \$888 to \$26,189.xcvi
- After acquiring the diabetes drug Glumetza, Valeant raised its price by 800%. xcvii
- Valeant acquired blood pressure drug Nitropress and hiked the price by 212%.xcviii
- Valeant bought the rights to another heart drug, Isuprel, for the treatment of congestive heart failure, and immediately raised the price 525%. xcix
- Faced with criticism of its price-gouging business model, a Valeant spokesperson insisted that its duty was to "maximize the value" for shareholders.c

Valeant investor Bill Ackman explained why Valeant was buying up drug companies instead of inventing new drugs: "Valeant believes that they are not good at drug development, i.e., or really coming up with new molecules and taking them all the way to the approval process. . . . If you regulate prices, if you say you can't charge market for a drug, that's going to reduce the profit. That's going to reduce the cash they have to buy the next drug company."ci

AbbVie Inc.

AbbVie is headquartered in Chicago. The company was part of Chicago-based Abbott Laboratories until Abbott spun out its pharmaceutical business into AbbVie in 2012. The company had \$33.3 billion in revenues in 2019. CEO Richard Gonzalez's total compensation was \$21.6 million; the top five most highly compensated executives took a total of \$69.4 million.^{cii}

In July 2020, Professor Ya'acov Nahmias of Hebrew University of Jerusalem told the *Jerusalem Post* that he and Dr. Benjamin tenOever of Mount Sinai Medical Center in New York had seen potentially promising results in experiments using AbbVie's cholesterollowering drug, TriCor, to treat COVID-19.^{ciii}

This isn't the first time TriCor was in the headlines. In October 2018, the U.S. Department of Justice announced that AbbVie and Abbott Laboratories would pay \$25 million to resolve a False Claims Act lawsuit involving TriCor. A whistleblower inside the company alleged that between 2006 and 2008, Abbott paid kickbacks to physicians for TriCor prescriptions and that the company engaged in illegal off-label marketing of the drug. civ The companies did not admit to wrongdoing.

Price Gouging and Patent Abuse

AbbVie is best known for Humira, which is used to treat rheumatoid arthritis and a host of other immune disorders. In 2019, Humira brought in about \$19.2 billion for the company, nearly 60% of AbbVie's total revenues for the year. Between 2012 and 2018, Humira brought in \$56 billion in the United States alone. Humira is so lucrative for AbbVie because the company has made it extremely expensive, costing about \$4,500 for a one-

month supply. cvi Between 2012 and 2018, AbbVie raised the price of the drug 144%.



In 2014, AbbVie's CFO said that "with a product as important and as attractive as Humira, you do everything you can on the IP front to ensure that you've protected it to the best you can." AbbVie protected itself from competition with Humira with an extremely aggressive patent strategy, applying for 247 new patents for the drug in advance of the 2016 patent expiration. Humira was first marketed in 2002; AbbVie filed 90% of the new patent applications after 2014. Cix AbbVie appears to have been working to cover all of

its bases, filing patents on things like the manufacturing process and ingredients and formulations the company thought competitors might want to use. cx

The strategy was successful. Companies interested in making Humira biosimilars chose to settle with AbbVie and agreed to wait until 2023 to produce their versions of the drugs, rather than deal with years of expensive litigation or risk going to market with a product AbbVie could then sue them over. AbbVie effectively extended its monopoly until 2023, allowing the company to continue charging exorbitant prices with no competition.^{cxi} I-MAK estimates that the extended monopoly will cost Americans \$14.4 billion.^{cxii}

In a class action lawsuit filed in 2017, plaintiffs (including purchasers of Humira) alleged that AbbVie's patent strategy violated antitrust laws. The judge dismissed the case in June 2020, noting that "AbbVie has exploited advantages conferred on it through lawful practices and to the extent this has kept prices high for Humira, existing antitrust doctrine does not prohibit it. . . . The legal and regulatory backdrop for patented biologic drugs, together with a well-resourced litigation strategy, gave AbbVie the ability to maintain control over Humira." In other words, what AbbVie did to protect its monopoly and its obscene profits may be morally reprehensible, but it was not illegal. It is likely that the legal departments of other pharmaceutical companies are paying close attention to this ruling. (The plaintiffs asked the judge to dismiss with prejudice, an indication that they will mount an appeal). CXIV

In a letter to investors in the company's 2019 annual report, CEO Richard Gonzalez boasted to investors that 2019 was AbbVie's fifth year in a row of double-digit earningsper-share growth, that it had increased their dividend by 195% since its inception, and that it's been a member of the S&P Dividend Aristocrat Index since 2013. The appropriately named Aristocrat Index is made up of companies that have increased the dividend paid to shareholders for at least 25 consecutive years.

Pfizer, Inc.

Pfizer, based in New York City, had \$51.8 billion in revenues in 2019. CEO Albert Bourla took \$17.9 million in total compensation in 2019; Pzifer's top five most highly compensated executives took a combined total of \$63.9 million. CEVIII

Pfizer is developing a COVID-19 antiviral and working with German firm

BioNTech on a COVID-19 vaccine. CXVIII In July 2020, the FDA granted the companies "fast-track" status on two of the potential vaccines, speeding up the regulatory approval process. CXIX

Price Gouging and Patent Abuse

Lyrica, an anticonvulsant used for epilepsy and nerve pain, brought in \$3.2 billion in revenues for Pfizer in 2019.^{cxx} The drug has been so lucrative for the company because Pfizer has consistently raised its price. Between 2012 and 2018, Pfizer hiked Lyrica's price by 163%.^{cxxi} In late 2018, Senate Finance Committee Ranking Member Ron Wyden, D-Oregon, demanded that Pfizer explain its "consistent and egregious price increase" on

Lyrica, pointing out that the drug cost Medicare \$2.1 billion in 2016. Pfizer has continued to raise prices on its drugs since. CXXIII

Facing the expiration of its Lyrica patent and thus profit-threatening competition from other drug makers, Pfizer filed for numerous new patents, including for a controlled-release version of the drug. Pfizer successfully extended patents on Lyrica for another 20 years. I-MAK cites Lyrica as a "prime example of over-patenting based on trivial inventions that are often used by drugmakers in order to artificially extend their commercial exclusivity while raising prices." CXXIV



Bextra: Massive Criminal Fines and Civil Settlements for Fraud

In 2009, the U.S. Department of Justice fined Pfizer \$2.3 billion, the largest health care fraud settlement and the largest criminal fine ever imposed at that point in U.S. history, for "criminal and civil liability arising from the illegal promotion of certain pharmaceutical products."CXXV

As part of the settlement, Pfizer subsidiary Pharmacia & Upjohn pled guilty to a "felony violation of the Food, Drug and Cosmetic Act for misbranding" the prescription strength NSAID painkiller Bextra "with the intent to defraud or mislead." Pfizer pulled Bextra from the market in 2005 at the request of the FDA due to safety concerns, including risk of skin reactions that could be fatal. Per promoted Bextra for several uses and dosages despite knowing that the FDA had declined to approve the drug for those specific uses for safety reasons. Pfizer paid a fine of \$1.3 billion over these charges.

Pfizer also agreed to pay another \$1 billion—the largest civil fraud settlement in American history at the time—to settle allegations under the civil False Claims Act. Pfizer is alleged to have illegally promoted Bextra, Lyrica, and two other drugs and to have paid kickbacks to health care providers in exchange for prescriptions of these drugs. CXXVIII

Experiments on Nigerian Children End with 11 Children Dead

In 2000, the *Washington Post* published results of its investigation into Pfizer's experiments on children in Kano, Nigeria, during a meningitis epidemic in 1996. Pfizer had a drug called Trovan that had never been tested on children. Unable to find clinical trial subjects in the United States, Pfizer used the meningitis epidemic in Nigeria as an opportunity to test the drug that it hoped could bring in \$1 billion a year if approved for all its potential uses.^{cxxix}

Pfizer enrolled 200 sick children in Kano in the experiment. Eleven died; others suffered lingering meningitis-related symptoms, including deafness, blindness, and seizures. One

child was left unable to walk or talk. The *Post* detailed numerous irregularities with the project, including allegations that Pfizer did not adjust treatment for children who were failing to respond positively to the drug. The *Post* found that parents were not informed that their children were part of an experiment, nor were they told that there was another, proven treatment available. A Doctors Without Borders physician who reviewed the records of one of the children who died told the *Post* that "it could be considered murder."CXXX

The FDA never approved Trovan for children, but Pfizer brought the drug to market for adults in 1998. Trovan was available for about 16 months, during which time there were

140 reports of liver problems. At least 14 people suffered liver failure, and 6 of them died. CXXXI



After the *Post*'s exposé, an internal Nigerian investigation found that the experiment was "an illegal trial of an unregistered drug," a "clear case of exploitation of the ignorant," and a violation of Nigerian and international law." The report eventually led to multiple lawsuits and Nigeria's filing of criminal charges against Pfizer, including counts of criminal conspiracy and voluntarily causing grievous harm. CXXXIII

In 2010, WikiLeaks released U.S. State Department cables that suggest Pfizer may have blackmailed the head of Nigeria's Ministry of Justice into dropping its \$6 billion criminal lawsuit and settling with Pfizer for \$75 million. CXXXIV

These are just a few of the worst examples of an industry designed to keep patients sick and make money from the pain of those who can least afford to pay the back-breaking price of prescription drugs. Far from supporting health, well-being, and the best in medical care, Big Pharma's exploitation of racialized capitalism is poisoning communities across the country. While these are some of the largest companies, there are dozens more—built in this same, profit-driven model, with deadly results for those who can't afford the high cost of care.



Recommendations

This report focuses on just a few of the elements that make up the horrors of the pharmaceutical industry. We know that this industry is powerful and toppling it will be no small feat. Exposing these corporations' business practices is just one step that must be accompanied by a movement. We know we cannot continue on this path if we want to properly address an increasing number of public health emergencies. To that end, we make the following recommendations.

- Ensure medications and vaccines used to treat the coronavirus are offered free of charge
 - O A pandemic is no time for profiteering. To stop the spread of the COVID-19, we need to make sure that treatment for the virus and for any comorbidities are available to all, regardless of economic status. These medications and vaccines were created with public funding, and it should be considered a public health imperative to offer them for free.
- Within agencies at the Department of Health and Human Services, designate systemic racism as a public health emergency
 - O We've seen time and time again that systemic racism against Black, Brown, and Indigenous communities leads to worse health outcomes. Designating systemic racism as a public health emergency cannot be a simply rhetorical act—it must by accompanied by concrete policy to address the racial disparity in access to medications.
- Take measurable steps toward strengthening the public's ownership of medicines
 - Our system of creating medications and vaccines is made horribly inefficient by a convoluted, profit-driven approach. We must ramp up production capability and immediately stop handing over patent monopolies to for-profit corporations. It should be the public's goal to benefit from our own medications and not be held to the desires of megacorporations.
- Issue reparations for past harms from the pharmaceutical Industry
 - Without acknowledgment of harm and concrete compensation, the pharmaceutical industry has not been held accountable for its past actions. Pharmaceutical companies should begin a process with a goal of issuing reparations to communities that have been ravaged by their actions.
- Impose compulsory licensing
 - O It's clear that pharmaceutical companies have abused their monopoly power, and our public health has suffered as a result. The government must use all of the tools at its disposal—including seizing the patents in particularly egregious cases—immediately to put an end to price gouging.

Acknowledgements

Written by Sharon Post and Maurice BP-Weeks

The Action Center on Race & the Economy (ACRE) is a campaign hub for organizations working at the intersection of racial justice and Wall Street accountability. We provide research and communications infrastructure and strategic support for organizations working on campaigns to win structural change by directly taking on



the financial elite that are responsible for pillaging communities of color, devastating working-class communities, and harming our environment. We partner with local organizations from across the United States that are working on racial, economic, environmental and education justice campaigns and help them connect the dots between their issues and Wall Street so that each of the local efforts feeds into a broad national movement to hold the financial sector accountable.

www.acrecampaigns.org

ACRE would like to thank the Lower Drug Prices Now Coalition for their support.

Lower Drug Prices Now is a national coalition of nearly 60 social, racial and economic justice organizations with members in all fifty states. We are committed to transformative, systemic and bold reforms to ensure everyone has access to affordable medicines — no matter where they live, what they look like or how much money they have.

www.LowerDrugPricesNow.org



POISON

HOW BIG PHARMA'S RACIST PRICE GOUGING KILLS BLACK AND BROWN FOLKS



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ENDNOTES

ⁱ R. W. Boyd, E. G. Lindo, L. D. Weeks, and M. R. McLemore, "On Racism: A New Standard for Publishing on Racial Health Inequities," *Health Affairs* (blog), July 2, 2020, doi:10.1377/hblog20200630.939347; C. P. Jones, "Levels of Racism: A Theoretic Framework and a Gardener's Tale," *American Journal of Public Health* 90, no. 8 (2000): 1212–15, https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.90.8.1212.

ⁱⁱ C. Morten, C. Urrutia, and J. Krellenstein, "A Powerful Law Gives HHS the Right to Take Control of Remdesivir Manufacturing and Distribution," *STAT*, July 2, 2020, https://www.statnews.com/2020/07/02/powerful-law-gives-hhs-right-to-control-remdesivir-manufacturing-distribution.

iii R. Boyd, "The Injustice of Inequitable Disease: Addressing Racial Health Inequities amid the COVID-10 Pandemic," Briefing before the U.S. Congress House Committee on Energy and Commerce, Subcommittee on Health, June 17, 2020, https://docs.house.gov/meetings/IF/IF14/20200617/110812/HHRG-116-IF14-Wstate-BoydR-20200617.pdf.

N. K. Choudry, U. Y. Saya, W. H. Shrank, J. O. Greenberg, C. M. Melia, A. Bilodeau, et al., "Cost-Related Medication Underuse: Prevalence among Hospitalized Managed Care Patients," *Journal of Hospital Medicine* 7, no. 2 (2012): 104–109, doi:10.1002/jhm.948; A. S. Adams, C. Uratsu, and W. Dyer, "Health System Factors and Antihypertensive Adherence in a Racially and Ethnically Diverse Cohort of New Users," *JAMA Internal Medicine* 173, no. 1 (2013): 54–61, doi:10.1001/2013.jamainternmed.955; B. Briesacher, R. Limcango, and D. Gaskin D., "Racial and Ethnic Disparities in Prescription Coverage and Medication Use," *Health Care Finance Review* 25 no. 2 (2003): 63–76, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194807/; C. Tseng, E. F. Tierney, R. B. Gerzoff, et al., "Race/Ethnicity and Economic Differences in Cost-Related Medication Underuse among Insured Adults with Diabetes," *Diabetes Care* 31, no. 2 (2008): 261–66, https://care.diabetesjournals.org/content/diacare/31/2/261.full.pdf; H. Kang, J. Mason Lobo, S. Kim, and M. Sohn, "Cost-Related Medication Non-adherence among U.S. Adults with Diabetes," *Diabetes Research and Clinical Practice*.143 (2018): 24–33, doi:10.1016/j.diabres.2018.06.016.

^v M. T. Hicken, H. Lee, J. Morenoff, J. S. House, and D. R. Williams, "Racial/Ethnic Disparities in Hypertension Prevalence: Reconsidering the Role of Chronic Stress," *American Journal of Public Health* 104, no. 1 (2014): 117–23, doi:10.2105/AJPH.2013.301395.

vi K. C. Ferdinand, K. Yadav, S. A. Nasser, H. D. Clayton-Jeter, J. Lewin, D. R. Cryer, and F. R. Senatore, "Disparities in Hypertension and Cardiovascular Disease in Blacks: The Critical Role of Medication Adherence," *Journal of Clinical Hypertension* 19, no. 20 (2017): 1015–24, doi:10.1111/jch.13089; I. U. Park and A. L. Taylor, "Race and Ethnicity in Trials of Antihypertensive Therapy to Prevent Cardiovascular Outcomes: A Systematic Review," *Annals of Family Medicine* 5, no. 5 (2007): 444–52, doi:10.1370/afm.708.

vii N. J. Guzman, "Epidemiology and Management of Hypertension in the Hispanic Population: A Review of the Available Literature," *American Journal of Cardiovascular Drugs* 12, no. 3 (2012): 165–78, doi:10.2165/11631520.

viii K. E. Thorpe, K. K. Chin, Y. Cruz, M. A. Innocent, and L. Singh, "The United States Can Reduce Socioeconomic Disparities by Focusing on Chronic Disease," *Health Affairs* (blog), August 17, 2017, doi:10.1377/hblog20170817.061561; Centers for Disease Control and Prevention, *Vital Signs: Hispanic Health* (Washington, DC: U.S. Department of Health and Human Services, 2015), https://www.cdc.gov/vitalsigns/hispanic-health/index.html; Centers for Disease Control and Prevention, *Hispanic/Latino Americans and Type 2 Diabetes* (Washington, DC: U.S. Department of Health and Human Services, 2019), https://www.cdc.gov/diabetes/library/features/hispanic-diabetes.html.

ix L. Presser, "The Black American Amputation Epidemic," *ProPublica*, May 19, 2020, https://features.propublica.org/diabetes-amputations/black-american-amputation-epidemic/; Briesacher et al., "Racial and Ethnic Disparities."

x Hicken et al., "Racial/Ethnic Disparities"; D. R. Williams and S. A. Mohammed, "Discrimination and Racial Disparities in Health: Evidence and Needed Research," *Journal of Behavioral Medicine* 32 no. 1 (2009): 20, doi:10.1007/s10865-008-9185-0.

xi Ferdinand et al., "Disparities in Hypertension."

xii Z. Xie, P. St. Clair, D. P. Goldman, and G. Joyce, "Racial and Ethnic Disparities in Medication Adherence among Privately Insured Patients in the United States," *PLOS ONE*, February 14, 2019, doi:10.1371/journal.pone.0212117; Adams et al., "Health System Factors." xiii Guzman, "Epidemiology and Management of Hypertension."

xiv Ferdinand et al., "Disparities in Hypertension."

 $^{^{\}mathrm{xv}}$ Ferdinand et al., "Disparities in Hypertension."

- xvi W. Cefalu, "Insulin Access and Affordability Working Group: Conclusions and Recommendations," *Diabetes Care* 41, no. 6 (2018): 1299–1311, doi:10.2337/dci18-0019.
- xvii Cefalu, "Insulin Access,"
- xviii Kang et al., "Cost-Related Medication Non-adherence."
- xix Tseng et al., "Race/Ethnicity and Economic Differences"; Presser, "The Black American Amputation Epidemic."
- xx Centers for Disease Control and Prevention, Hispanic/Latino Americans; Presser, "The Black American Amputation Epidemic."
- xxi J. M. Metzl and D. E. Roberts, "Structural Competency Meets Structural Racism," AMA Journal of Ethics 16, no. 9 (2014): 674–90, doi:10.1001/virtualmentor.2014.16.9.spec1-1409.
- xxii A. Cancryn and L. Barrón-López, "Azar Faulted Workers' 'Home and Social' Conditions for Meatpacking Outbreaks," *Politico*, May 2, 2020, https://www.politico.com/news/2020/05/07/azar-coronavirus-meatpacking-workers-241915; L. Beckett, "'All the Psychoses of US History': How America Is Victim-Blaming the Coronavirus Dead," *Guardian*, May 21, 2020,
- https://www.theguardian.com/world/2020/may/21/all-the-psychoses-of-us-history-how-america-is-victim-blaming-the-coronavirus-dead; Boyd, "The Injustice of Inequitable Disease"; W. J. Barber II and W. J. Barber III, "Racism and Covid-19 Are a Lethal Combination," *The Nation*, April 21, 2020, https://www.thenation.com/article/activism/environmental-racism-death-coronavirus/.
- xxiii Briesacher et al., "Racial and Ethnic Disparities."
- xxiv Kang et al., "Cost-Related Medication Non-adherence"; see also Briesacher et al., "Racial and Ethnic Disparities"; Tseng et al., "Race/Ethnicity and Economic Differences."
- xxv G. Gee and C. Ford, "Structural Racism and Health Inequities: Old Issues, New Directions," *Du Bois Review* 8, no. 1 (2011): 115–32, doi:10.1017/S1742058X11000130; W. Darity, D. Hamilton, P. Mark, A. Aja, A. Price, A. Moore, and C. Chiopris, *What We Get Wrong about Closing the Racial Wealth Gap* (Durham, NC: Samuel DuBois Cook Center on Social Equity and Insight Center for Community Economic Development, 2018), https://socialequity.duke.edu/wp-content/uploads/2019/10/what-we-get-wrong.pdf.
- xxvi Gee and Ford, "Structural Racism": Darity et al., What We Get Wrong.
- xxvii A. Zaitchik, "How Big Pharma Was Captured by the One Percent," *New Republic*, June 28, 2018, https://newrepublic.com/article/149438/big-pharma-captured-one-percent.
- xxviii B. Palmer, "Jonas Salk: Good at Virology, Bad at Economics," *Slate*, April 13, 2014, https://slate.com/technology/2014/04/the-real-reasons-jonas-salk-didnt-patent-the-polio-vaccine.html.
- xxix Zaitchik, "How Big Pharma Was Captured."
- xxx A. Zaitchik, "No Vaccine in Sight," *New Republic*, May 11, 2020, https://newrepublic.com/article/157594/no-coronavirus-vaccine-big-pharma-drug-patent-system; T. Hilal, M. Gonzalez-Velez, and V. Prasad, V., "Core Limitations in Clinical Trials Leading to Anticancer Drug Approvals by the U.S. Food and Drug Administration," *Journal of Clinical Oncology* 38, Suppl. (2020): 2057.
- xxxi Zaitchik, "How Big Pharma Was Captured."
- xxxii Wisconsin Alumni Research Foundation, "WARF and the Bayh-Dole Act," accessed June 23, 2020, https://www.warf.org/about-us/history/warf-bayh-dole-act/warf-bayh-dole.cmsx.
- xxxiii Zaitchik, "How Big Pharma Was Captured."
- xxxiv Zaitchik, "How Big Pharma Was Captured."
- xxxv Zaitchik, "How Big Pharma Was Captured"; K. J. Hickey, "COVID-19 Medical Countermeasures: Intellectual Property and Affordability," Congressional Research Service Legal Sidebar No. LSB10422, March 18, 2020, https://crsreports.congress.gov/product/pdf/LSB/LSB10422.
- xxxvi L. Fang, "Coronavirus Treatment Developed by Gilead Sciences Granted 'Rare Disease' Status, Potentially Limiting Affordability," *The Intercept*, March 23, 2020, https://theintercept.com/2020/03/23/gilead-sciences-coronavirus-treatment-orphan-drug-status/.
- xxxvii T. A. Barrueta, "A Brief History of Drug Pricing" (presentation to Alliance of Community Health Plans, May 15, 2015), https://www.achp.org/wp-content/uploads/Tony-Barrueta-Presentation-5_15_15.pdf.

- xxxviii Barrueta, A Brief History of Drug Pricing."
- xxxix Zaitchik, "How Big Pharma Was Captured."
- xl Zaitchik, "How Big Pharma Was Captured."
- xii A. Carroll, "Did Infamous Tuskegee Study Cause Lasting Mistrust of Doctors among Blacks?" *New York Times*, June 17, 2016, https://www.nytimes.com/2016/06/18/upshot/long-term-mistrust-from-tuskegee-experiment-a-study-seems-to-overstate-the-case.html; R. Carroll, "Guatemal Victims of US Syphilis Study Still Haunted by the 'Devil's Experiment,' *The Guardian*, June 8, 2011, https://www.theguardian.com/world/2011/jun/08/guatemala-victims-us-syphilis-study; K. Spector-Bagdady and P. A. Lombardo, "U.S. Public Health Service STD Experiments in Guatemala (1946–1948) and Their Aftermath," *Ethics & Human Research*, March 20, 2019, doi:10.1002/eahr.500010.
- xlii D. Grady, "A Lasting Gift to Medicine That Wasn't Really a Gift," *New York Times*, February 1, 2010, https://www.nytimes.com/2010/02/02/health/02seco.html.
- xliii Grady, "A Lasting Gift."
- xliv Zaitchik, "How Big Pharma Was Captured."
- xlv Zaitchik, "How Big Pharma Was Captured."
- xlvi K. Milani, *Profit over Patients: Americans Are Paying for a Financialized Pharmaceutical Industry* (New York: Roosevelt Institute, 2019).
- xivii Initiative for Medicines, Access, and Knowledge (I-MAK), public comment submitted to the U.S. Federal Trade Commission Hearings on Competition and Consumer Protection, Topic 8: The Role of Intellectual Property and Competition Policy in Promoting Innovation, August 20, 2018, https://www.ftc.gov/system/files/documents/public_comments/2018/08/ftc-2018-0055-d-0036-155041.pdf.
- xlviii I-MAK, public comment.
- xlix T., Amin and R. Malpani, "Covid-19 Has Exposed the Limits of the Pharmaceutical Market Model," STAT, May 19, 2020, https://www.statnews.com/2020/05/19/covid-19-exposed-limits-drug-development-model/.
- ¹ Zaitchik. "No Vaccine in Sight."
- li Zaitchik, "No Vaccine in Sight."
- lii Zaitchik, "How Big Pharma Was Captured."
- liii Milani, Profit over Patients.
- liv Hilal et al., "Core Limitations,"
- ^{lv} H., Kuchler, S., Provan, and D. P. Mancini, "Gilead Says Remdesivir Data Show Reduced Risk of Death," *Financial Times*, July 10, 2020, https://www.ft.com/content/978b4f8a-62b5-43a0-ad32-dda1930ec47c.
- lvi R. Moynihan, L. Albarqouni, C. Nangla, A. G. Dunn, J. Lexchin, and L. Bero, "Financial Ties between Leaders of Influential US Professional Medical Associations and Industry: Cross Sectional Study," *BMJ* 2020 no. 369 (2020): m1505, doi:10.1136/bmj.m1505.
- lvii J. J. Liu, C. M. Bell, J. J. Matelski, A. S. Detsky, and P. Cram, "Payments by US Pharmaceutical and Medical Device Manufacturers to US Medical Journal Editors: Retrospective Observational Study," *BMJ* 2017, no. 359 (2017): j4619, doi:10.1136/bmj.j4619.
- lviii "Industry Profile: Pharmaceutical/Health Products," Center for Responsive Politics, accessed June 17,2020. https://www.opensecrets.org/federal-lobbying/industries/summary?cycle=2015&id=H04.
- lix "Pharmaceutical Manufacturing Influence and Lobbying Summary," Center for Responsive Politics, accessed June 17, 2020. https://www.opensecrets.org/industries/indus.php?Ind=H4300.
- lx E., Kopp, E., Lucas, S. Lupkin, and V. Knight, "Pre\$ciption for Power: Investigating the Relationships between Patient Advocacy Groups and Big Pharma," *Kaiser Health News*, accessed June 14th, 2020, https://khn.org/patient-advocacy/#; E. Kopp, S. Lupkin, and E. Lucas, "Patient Advocacy Groups Take in Millions from Drugmakers: Is There a Payback?" *Kaiser Health News*, April 6, 2018, https://khn.org/news/patient-advocacy-groups-take-in-millions-from-drugmakers-is-there-a-payback/.
- lxi K. Thomas, "Furor over Drug Prices Puts Patient Advocacy Groups in Bind," *New York Times*, September 27, 2016, https://www.nytimes.com/2016/09/28/business/furor-over-drug-prices-puts-patient-advocacy-groups-in-bind.html#.

lxii J. Cone, "There Is No Such Thing as 'Free' Vaccines: Why We Rejected Pfizer's Donation Offer of Pneumonia Vaccines," *Medium*, October 10, 2016, https://medium.com/@MSF_access/there-is-no-such-thing-as-free-vaccines-why-we-rejected-pfizers-donation-offer-of-pneumonia-6a79c9d9f32f.

lxiii Cone, "There Is No Such Thing."

lxiv T. Stanley, "Life, Death and Insulin," Washington Post Magazine, January 7, 2019.

https://www.washingtonpost.com/news/magazine/wp/2019/01/07/feature/insulin-is-a-lifesaving-drug-but-it-has-become-intolerably-expensive-and-the-consequences-can-be-tragic/

lxv Stanley, "Life, Death and Insulin."

lxvi Barrueta, "A Brief History of Drug Pricing."

lxvii Zaitchik, "No Vaccine in Sight."

lawiii We added up the 2019 total compensation figures for each company's top five most highly compensated executives according to their publicly available Securities and Exchange Commission Form 10-K filings.

lxix Shareholder information from Yahoo Finance. Pfizer: https://finance.yahoo.com/quote/PFE/holders; Gilead:

https://finance.yahoo.com/quote/GILD/holders; Bausch: https://finance.yahoo.com/quote/BHC/holders/; AbbVie: https://finance.yahoo.com/quote/ABBV/holders; Eli Lilly: https://finance.yahoo.com/quote/LLY/holders.

lxx Eil Lilly and Company, Form 10-K for the fiscal year ended December 31, 2019, filed February 13, 2020, https://investor.lilly.com/static-files/cd4a37af-ec28-449c-9bfb-ae380700209a/.

lixi Eli Lilly and Company, *Notice of 2020 Annual Meeting of Shareholders and Proxy Statement*, accessed July 13, 2020, https://investor.lilly.com/static-files/53abbfd3-cbdf-4140-afcf-2045f0782149

D. Pendergrass, "How Insulin Became Unaffordable," *Harvard Political Review*, January 22, 2018, https://harvardpolitics.com/united-states/how-insulin-became-unaffordable/.

Ixxiii T. Turner, "Eli Lilly & Co.," DrugWatch, last modified July 8, 2020, https://www.drugwatch.com/manufacturers/eli-lilly/.

lxxiv Turner, "Eli Lilly & Co."

https://www.fiercepharma.com/pharma/insulin-pricing-class-action-lawsuit-to-proceed-against-sanofi-novo-and-lilly; "Hagens Berman: Judge Denies Insulin Makers' Motion to Dismiss Class-Action Lawsuit Regarding Skyrocketing Insulin Prices" (press release, February 15, 2019), https://www.businesswire.com/news/home/20190215005526/en/Hagens-Berman-Judge-Denies-Insulin-Makers%E2%80%99-Motion.

Ixxvi Z. Budryk, "AG Sues Insulin Makers over Pricing," *The Hill*, May 13, 2019, https://thehill.com/homenews/state-watch/443512-kentucky-ag-sues-insulin-makers-over-pricing; J. Olson, "Minnesota Attorney General Lori Swanson Sues Insulin Makers," *Star Tribune*, October 17, 2018, https://www.startribune.com/minnesota-attorney-general-lori-swanson-sues-insulin-makers/497711361/.

Ixxvii Z. Despart, "Harris County Sues Insulin Manufacturers, Alleging Price-Gouging Scheme," Houston Chronicle, November 22, 2019, https://www.houstonchronicle.com/news/houston-texas/houston/article/Harris-County-sues-insulin-manufacturers-14856121.php.

lxxviii S. Karnowski, "Minnesota Governor, Insulin Activists Blast Industry Lawsuit," *Twin Cities Pioneer Press*, July 1, 2020, https://www.twincities.com/2020/07/01/minnesota-governor-insulin-activists-blast-industry-lawsuit/.

Pharmaceutical Research and Manufacturers of America v. Stuart Williams et al., Case No. 0:20-cv-01497-DSD-DTS (D. Minn., June 30, 2020), https://www.courthousenews.com/wp-content/uploads/2020/07/phrma-complaint.pdf.

lxxx Pendergrass, How Insulin Became Unaffordable."

lxxxi Gilead Sciences, Inc., Form 10-K for the fiscal year ended December 31, 2019, filed February 18, 2020, http://investors.gilead.com/static-files/1a607ba4-ee05-4dc5-9eeb-9509c6b8a3e4

lxxxii A. Tong, "Report on One PhIII Remdesivir Study Sends Investors into Overdrive, Adding Billions to Gilead's Market Cap," last modified April 20, 2020, https://endpts.com/anecdotal-reports-from-one-phiii-remdesivir-study-send-investors-into-overdrive-adding-billions-to-market-cap/.

lxxxiii K. Ardizzone, *Role of the Federal Government in the Development of Remdesivir* (Washington, DC: Knowledge Ecology International, 2020), https://www.keionline.org/wp-content/uploads/KEI-Briefing-Note-2020 1GS-5734-Remdesivir.pdf.

lxxxiv "The Real Story of Remdesivir," Public Citizen, May 7, 2020, https://www.citizen.org/article/the-real-story-of-remdesivir/.

lxxxv A. Sarpatwari, A. Kaltenboeck, and A. Kesselheim, "Missed Opportunities on Emergency Remdesivir Use," *JAMA Viewpoint*, June 2, 2020, doi:10.1001/jama.2020.11932.

lxxxvi B. Berkrot and D. Beasley, "Update 4: U.S. Lawmakers Want Gilead to Explain Solvadi's Hefty Price," *Reuters*, March 21, 2014, https://www.reuters.com/article/gilead-sovaldi/update-4-u-s-lawmakers-want-gilead-to-explain-sovaldis-hefty-price-idUSL2NOMI0UP20140321.

lxxxvii E. Sagonowsky, "Gilead Schemed with J&J, Bristol-Myers to Keep Their HIV Combo Monopoly, Lawsuit Claims," Fierce Pharma, May 15, 2019, https://www.fiercepharma.com/pharma/after-decades-activism-patients-hit-gilead-hiv-drug-antitrust-lawsuit.

lxxxviii Sagonowsky, "Insulin Pricing Lawsuit."

lxxxix M. Petersen, "Patients Sue Gilead, Saying Drug Company Intentionally Delayed Safer HIV Medicine," Los Angeles Times, May 9, 2018, https://www.latimes.com/business/la-fi-gilead-hiv-drug-lawsuit-20180509-story.html.

*c T. Fitzsimons, "U.S. sues Gilead, claiming it owns HIV PrEP patent", NBC News, November 7, 2019, https://www.nbcnews.com/feature/nbc-out/u-s-sues-gilead-claiming-it-owns-hiv-prep-patent-n1078346

xci T. Campbell, "Gilead Slaps Mega-Price on Its Newly Approved CAR-T," *Motley Fool*, October 19, 2017, https://www.fool.com/investing/2017/10/19/gilead-slaps-mega-price-on-its-newly-approved-car.aspx.

xcii B. Hirschler, "UK Rejects Gilead's CAR-T Cancer Cell Therapy as Too Expensive," *Reuters UK*, August 28, 2018, https://uk.reuters.com/article/uk-gilead-sciences-britain/uk-rejects-gileads-car-t-cancer-cell-therapy-as-too-expensive-idUKKCN1LD174.

xciii A. Dearment, "Jury Awards BMS Subsidiary \$725M in CAR-T Patent Infringement Suit," *MedCity News*, December 15, 2019, https://medcitynews.com/2019/12/jury-awards-bms-subsidiary-752m-in-car-t-patent-infringement-suit/.

xciv Bausch Health Companies Inc., Form 10-K for the fiscal year ended December 31, 2019, filed February 13, 2020, https://otp.tools.investis.com/clients/us/bausch_health_companies/SEC/secshow.aspx?FilingId=13935570&Cik=0000885590&Type=PDF&hasPdf=1.

xcv Bausch Health Companies Inc., Notice of Annual Meeting of Shareholders and Proxy Statement 2019 Proxy Statement, March 16, 2020, https://otp.tools.investis.com/clients/us/bausch_health_companies/SEC/sec-show.aspx?FilingId=14009356&Cik=0000885590&Type=PDF&hasPdf=1

xcvi L. Lopez, "One of the Hottest Debates in Hedge Funds Is Starting to Boil Over," Business Insider, October 9, 2015, https://www.businessinsider.com/valeant-faces-scrutiny-for-price-gouging-2015-10?op=1

xcvii A. Pollack and S. Tavernise, "Valeant's Drug Price Strategy Enriches It, but Infuriates Patients and Lawmakers," New York Times, October 4, 2015, https://www.nytimes.com/2015/10/05/business/valeants-drug-price-strategy-enriches-it-but-infuriates-patients-and-lawmakers html

xcviii R. Blackwell, "Drugs Targeted in Valeant Pricing Controversy Acquired in February," *Globe and Mail*, September 29, 2015, https://www.theglobeandmail.com/report-on-business/drugs-targeted-in-valeant-pricing-controversy-acquired-in-february/article26590603/.

xcix Blackwell, "Drugs Targeted."

^c Blackwell, "Drugs Targeted."

ci Lopez, "One of the Hottest Debates."

cii AbbVie Inc., *AbbVie Here. Now: 2019 Annual Report on Form 10-K* (Chicago: AbbVie, 2020), https://investors.abbvie.com/static-files/71f9318f-9a32-42ee-92ee-a34975edcd19

ciii M. Jaffe-Hoffman, "Hebrew U. scientist: Drug could eradicate COVID-19 from lungs in days", The Jerusalem Post, July 15, 2020. https://www.jpost.com/health-science/hebrew-u-scientist-drug-could-eradicate-covid-19-from-lungs-in-days-635028

civ U.S. Attorney's Office, Eastern District of Pennsylvania, "Abbott Laboratories and AbbVie Inc. to Pay \$25 Million to Resolve False Claims Act Allegations of Kickbacks and Off-Label Marketing of the Drug TriCor" (press release, October 26, 2018), https://www.justice.gov/usao-edpa/pr/abbott-laboratories-and-abbvie-inc-pay-25-million-resolve-false-claims-act-allegations.

^{cv} In re: Humira (Adalimumab) Antitrust Litigation, Case No. 19-cv-01873, Document 170 (N.D. III., June 8, 2020).

^{cvi} In re: Humira.

^{cvii} In re: Humira.

cviii I-MAK, Overpatented, Overpriced: Special Humira Edition (2018), http://www.i-mak.org/wp-content/uploads/2018/09/i-mak.humira.report.final_.0917.pdf.

cix In re: Humira.

cx In re: Humira.

^{cxi} In re: Humira.

^{cxii} I-MAK, Overpatented, Overpriced.

^{cxiii} In re: Humira.

cxiv In re: Humira.

cxv AbbVie Inc., AbbVie Here. Now.

cxvi Pfizer, Form 10-K for the fiscal year ended December 31, 2019, filed February 27, 2020,

https://investors.pfizer.com/financials/sec-filings/sec-filings-details/default.aspx?FilingId=13958533.

cxvii Pfizer, Breakthroughs That Change Patients' Lives: Proxy Statement for 2020 Annual Meeting of Shareholders (New York: Pfizer, 2020), 84,

https://s21.q4cdn.com/317678438/files/doc_financials/interactive_proxy/2020/images/Pfizer-Proxy2020.pdf.

cxviii K. Stankiewicz, "Pfizer's Lead Coronavirus Drug Is Showing Promise, Chief Scientific Officer Says," CNBC, April 9, 2020, https://www.cnbc.com/2020/04/09/pfizers-lead-coronavirus-drug-shows-promise-scientific-officer-says.html; Pfizer, "Pfizer and BioNTech Announce Early Positive Data from an Ongoing Phase 1/2 Study of MRNA-Based Vaccine Candidate against SARS-COV-2" (press release, July 1, 2020), https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-announce-early-positive-data-ongoing-0

cxix M. Maddipatla, "Pfizer, BioNTech's Coronavirus Vaccine Candidates Get FDA's 'Fast Track' Status," Reuters,

https://www.reuters.com/article/us-health-coronavirus-biontech-pfizer-idUSKCN24E18Q.

cxx Pfizer, Form 10-K, 132.

^{cxxi} I-MAK, Overpatented, Overpriced, 9.

cxxii R. Wyden to Ian Read, December 18, 2018, https://www.finance.senate.gov/imo/media/doc/121818%20RW%20Lyrica%20Letter.pdf.

cxxiii J. S. Hopkins, "Drug Prices Rise 5.8% on Average in 2020," MarketWatch, January 2, 2020,

https://www.marketwatch.com/story/drug-prices-rise-58-on-average-in-2020-2020-01-02.

cxxiv I-MAK, Overpatented, Overpriced, 9.

cxxv U.S. Department of Justice (DOJ), "Justice Department Announces Largest Health Care Fraud Settlement in Its History" (press release, Septemer 2, 2009), https://www.justice.gov/opa/pr/justice-department-announces-largest-health-care-fraud-settlement-its-history.

cxxvi DOJ, "Justice Department Announces."

cxxvii Associated Press, "Painkiller Bexra Pulled from Market," NBC News, April 7, 2005, http://www.nbcnews.com/id/7418345/ns/health-arthritis/t/painkiller-bextrapulled-market/

cxxviii DOJ, "Justice Department Announces."

cxxix J. Stephens, "Where Profits and Lives Hang in Balance; Finding an Abundance of Subjects and Lack of Oversight Abroad, Big Drug Companies Test Offshore to Speed Products to Market," *Washington Post*, December 17, 2000, https://www.washingtonpost.com/archive/politics/2000/12/17/where-profits-and-lives-hang-in-balance/90b0c003-99ed-4fed-bb22-4944c1a98443/.

cxxx Stephens, "Where Profits and Lives Hang in Balance."

cxxxi Stephens, "Where Profits and Lives Hang in Balance."

cxxxii W. Armstrong, "Did Pfizer Bribe Its Way out of Criminal Charges in Nigeria?" The Atlantic, December 27, 2010,

https://www.theatlantic.com/international/archive/2010/12/did-pfizer-bribe-its-way-out-of-criminal-charges-in-nigeria/68495/.

cxxxiii J. Stephens, "Pfizer Faces Criminal Charges in Nigeria," Washington Post, May 30, 2007, https://www.washingtonpost.com/wp-dyn/content/article/2007/05/29/AR2007052902107.html.

cxxxiv Armstrong, "Did Pfizer Bribe Its Way Out."