## Sawbones 464: Patents vs. Life-Saving Drugs

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**Clint:** Sawbones is a show about medical history, and nothing the hosts say should be taken as medical advice or opinion. It's for fun. Can't you just have fun for an hour and not try to diagnose your mystery boil? We think you've earned it. Just sit back, relax, and enjoy a moment of distraction from that weird growth. You're worth it.

[theme music plays]

**Justin:** Hello everybody, and welcome to *Sawbones*, a marital tour of misguided medicine. I'm your cohost, Justin McElroy.

**Sydnee:** And I'm Sydnee McElroy.

**Justin:** Syd, I've been in a remarkably good mood today.

**Sydnee:** Oh!

**Justin:** When you're somebody who, you know, never quite knows where their head's gonna be at, 'cause of chemicals and everything in the world, it's so nice. And I am hopin'—

**Sydnee:** It's nice for those around you too, just a little side note. [laughs]

**Justin:** Do people like that too? The people in the house like that? Just different people that live here all the time. [laughs]

**Sydnee:** Listen, I get bored easily. I love unpredictability. So that's—you know. So it works for us. It works. I never know what I'm waking up to.

**Justin:** [simultaneously] Keeps you guessing. You like that. It keeps—keeps you guessing.

**Sydnee:** It works for us.

**Justin:** But this one's good. This is—I'm in a good vibe, and I'm hoping that you are going to keep me on this, uh, this radiation vibe I'm groovin' on by just keepin' the good vibes comin'. What do you got this week, Syd?

**Sydnee:** Well, I don't know if it's good—

**Justin:** Pretty excited about it.

**Sydnee:** Well, okay. This isn't bad vibes. Because—you know, it's funny. As I was researching this topic and putting this episode together, the narrative. It's, like, better news.

**Justin:** Oh, good!

**Sydnee:** I wouldn't say, like, everything's fixed, don't worry. But, like, there's good news.

**Justin:** They heard you were looking into it and they're like, "Quick, Sydnee's coming! Fix it!"

**Sydnee:** You know what's funny? And I think I can admit this to you, dear listeners. Like, you've been with us so long. I think you know my heart, and you understand this. So, as I was putting this story together and I'm thinking like, "Oh, this is good. This is important. This is an important thing. I want to do an episode on it. I want to talk about it too. I want to also, you know, research some of the backstory of this and, like, get that info out there, 'cause it's really important for us to be focused on and energized about and talking about."

And then as I was researching it, this actually happened in our notes, it happened to me in the moment. But, like, yesterday now as we're recording, it sort of came to resolution, and that's great. I mean, excellent.

But also, I had a moment of like, "No, not yet!" [laughs] "My episode!" [laughs]

Justin: "I need to be able to take—I need to be able to take credit!"

**Sydnee:** No, no! It wasn't that. It was just like, "No, I want to talk about it too! No, no, no, don't! It got fixed to quick! I didn't get to help! I wanted to help too!"

**Justin:** Well, if I know anything about the medical system, the underlying issues are probably still absolutely there.

**Sydnee:** They are. The underlying issues are still there. And it's, as with most activist causes, sustained pressure on organizations to do the right thing is really important. Even if it seems they're starting to do the right thing, you can't take your eye off 'em. 'Cause—you know. And we're talking about Big Pharma here.

Justin: Ahh?

**Sydnee:** And Big Pharma is really tricksy. And they have lots of lawyers. This is no shade on you lawyers. I'm just saying they have lots of you. They have lots of lobbyists. They have lots of people who are very good at protecting the interests of Big Pharma. That's what they're paid to do. That's they're job. They're very talented and skilled and intelligent, and they will out-wile us [laughs quietly] if we're not paying attention.

So anyway, I want to talk about bedaquiline and drug patents. Many of you may be familiar with this, because of either John Green or Hank Green, because I think John first started talking about it I think on Twitter. See, I feel like that now that...

**Justin:** We're missing the narrative now.

Sydnee: I know, I miss narratives now that I don't really—

**Justin:** Everybody get off Twitter, come on!

**Sydnee:** I don't know where we go. MySpace?

**Justin:** I guess.

**Sydnee:** LiveJournal?

Justin: I guess?

**Sydnee:** I don't know. But, um, but I feel like I was late to this because I don't really look at Twitter much anymore. Uh, but anyway, I think John called attention to it first, and then of course Hank too. Many of you are probably fans of the Green brothers, as you should be, as we are. Um, but they—but what John was talking about is that there is a medication, bedaquiline, that is used for tuberculosis, a specific kind of tuberculosis. We often use the abbreviation MDRTB. TB is the common way to refer to tuberculosis. I think most people know that. TB. When I say TB, I mean tuberculosis. MDR means multidrug-resistant. So it's TB that's really hard to treat. That's the important part.

**Justin:** Okay.

**Sydnee:** It's the same, by the way—I think it's always important. I always try to tell patients this. If I think something is M-R-S-A, or MRSA...

**Justin:** [simultaneously] MRSA!

**Sydnee:** That's just a really resistant strain of staph. So it's a staph infection. You may have heard of staph infections. They're really common. This is still just staph. It's just a really resistant form of staph, meaning that we have to use different antibiotics to fix it.

**Justin:** Makes sense to me.

**Sydnee:** Same idea. But generally same bug. Meh, there's differences. But generally same bug. So, same idea. So this medication is really critical, because with MDRTB, you don't have a lot of options to treat it, and you need something that's a pill, because a lot of the parts of the world that are really affected by TB, it can be hard—like, the delivery of healthcare can be more difficult, because we're talking about resource-limited settings or rural settings where it can be hard to get, like, injections or IV meds out to people. You need stuff that travels easily. Um, and the reason that John Green drew attention to it and that we're talking about it now is that this medication was about to come off patent this year.

That's a big deal for medicines. This is something that, um, is—like, a lot of us in healthcare will sort of track occasionally. When there's a medicine that a lot of our patients want or one that we know works well and are trying to give to people, when it's first introduced, the drug company that makes it will patent it, right? Because they want to make money off of it. And then, you know, the argument that they will always make—which is to some degree true—"We spent a lot of money and time making it. And so now we need a return on our investment."

So they patent it to protect it so other companies can't make it. Other companies can't make the same thing, and you can't make generics of it for cheap. So then, basically they get a monopoly on it. They get to set the price, and whatever they set is what you have to pay. And insurance companies may choose to cover it or not. For most of these drugs when they're first introduced, the idea that you could afford them out of pocket is not realistic for the vast majority of Americans.

And I know, by the way, this system can work differently in different parts of the world. I'm speaking primarily about the way the pharmaceutical industry operates in the United States of America. There are still these issues, 'cause pharmaceutical companies are multinational, you know, giants, for the most part. The company that made this med, Johnson & Johnson, is also Janssen, it just depends on where you are. But anyway, so a lot of—there are issues with the pharmaceutical industry in probably the entire world.

**Justin:** It's exactly like Mickey Mouse?

**Sydnee:** [holding back laughter] What?

**Justin:** Well, Mickey Mouse is supposed to enter the public domain, and Disney keeps fighting to keep Mickey Mouse out of the public domain, because they want to hold to him. 2024, Mickey Mouse theoretically enters the public domain, but it's just Steamboat Willie Mickey Mouse, so no gloves, no color. But if you want to draw a black and white Mickey Mouse... [snorts] they can't—they can't stop you anymore.

**Sydnee:** Now, wait. Let me ask you something.

Justin: Yes.

**Sydnee:** So, is the real—like, the version of Mickey Mouse that we know

today...

Justin: Mm-hmm?

**Sydnee:** What number, like, trademark are we on?

**Justin:** What do you mean?

**Sydnee:** Well, you said that it's just the Steamboat Willie one.

**Justin:** Yes. It's the—it's not the number. It's not re-trademarked. It's elements of his appearance. So the gloves weren't in Steamboat Willie. They weren't until I think a year after, so 2025...

**Sydnee:** Then you could do...

**Justin:** That version of Mickey Mouse. And he wasn't in color until 1935, so not till 2035—

**Sydnee:** That's when you can do that?

Justin: Yeah. Exactly.

**Sydnee:** Okay. No, this is a really good analogy for what I'm going to explain to you about drug patents.

**Justin:** [simultaneously] Okay, good.

**Sydnee:** So keep that in mind. That the only Mickey Mouse you can use next year will be the Steamboat Willie Mickey Mouse. This is—we're gonna get to that. That's a good analogy for this.

Okay. So, the drug that—this drug, bedaquiline, was introduced in—well, first it was mentioned, it was investigated all the way back in, like, 2004. In this

country, in the United States, it was introduced in 2012. Um, and it is a, you know, it's this Blockbuster drug at the time. Like, when it was introduced, it was a big deal, because it treated this really resistant strain of TB. It was a pill. Um, it—in case you're curious, it is a diarylquinoline antibiotic, if you want to know what class of drugs it is in.

**Justin:** Hmmm. Hmmm!

**Sydnee:** Basically the way that it works in TB is it blocks the synthesis of something called ATP, which is like energy for the tuberculosis bacteria, and then it kills it. So it doesn't matter. The point is—

**Justin:** [simultaneously] You're losing them, Smirl! Pull up! Pull up, Smirl, you're losin' 'em!

**Sydnee:** The point is, it kills TB that other drugs can't. And when it came out, it was the first drug—new drug, the first new drug, I should say—for TB that had been introduced in over 40 years. So it was a huge deal when it came to the market, and a lot of people who were working to fight TB and try to, you know, eradicate TB in different parts of the world were really thankful that this drug was introduced.

**Justin:** And the people who were rooting for TB and trying to get it spread everywhere, they were very frustrated. "Ughh! Not again! We were just making some headway!"

**Sydnee:** "Oh no! We're trying to give everybody TB!"

Justin: "Dang it!"

**Sydnee:** Well, I mean, I guess it's just TB at this point was on the other side. Like, tuberculosis itself was upset.

**Justin:** Yeah, sure.

**Sydnee:** If it has, like, a—if it's sentient and has a—

**Justin:** It probably has a few b—it probably has a few boosters. There's people that watch, like, NCIS. You know what I mean? I don't see why there's not people that cheer for tuberculosis. [laughs quietly]

**Sydnee:** [through laughter] I don't think those two—I don't think you can draw a corollary—

**Justin:** Ben Shapiro has fans! Why can't tuberculosis have fans? [laughs]

**Sydnee:** There you go. That's where I would put TB.

Justin: Yeah.

**Sydnee:** Right alongside Ben Shapiro. So anyway—and I know, like, in that story—okay. So, TB largely affects parts of the world where there's resource-limited—people are living impoverished settings. So you could start to see, like, Johnson & Johnson in this scenario as, like—and there hadn't been a new drug introduced in 40 years. They took a risk, right? Like, you could make that argument. Like, deciding that these are the people we want to focus on, this is the issue we want to address, and this is the drug we want to develop, knowing the patient populations aren't gonna have a ton of cash to pay for it. Like, you know, it's not like they made a new vanity drug, right? So, like, a lot—and that's—and the reason I'm saying this is that this is always the argument on the side of the pharmaceutical industry. "We took a big risk. We made a med that you really needed."

And it was first—like, it took 'em, like, eight years of development beyond all of the early stuff that led to the development of this drug.

So, like, it is—I guess that is kind of a risk. Now, on the flip side, TB is a big deal. As of 2021, these are the last, like, stats that I found, 1.6 million people around the world died from tuberculosis. And it specifically affects some populations more than others. So, like, 187,000 of those people also have HIV.

TB is the 13th leading cause of death worldwide, and it was the leading cause of death, infectious-disease-wise. It was the number one infectious disease killer worldwide until something took its place.

Justin: COVID.

**Sydnee:** COVID. I imagine that in the coming years TB will again reclaim that first position. So it takes more lives than HIV AIDS, which I think we probably hear more and talk more about overall, at least in this country, than we do tuberculosis.

**Justin:** And even that is not that much.

**Sydnee:** Right, exactly.

**Justin:** Not enough, at least.

**Sydnee:** So it is a giant problem. In 2021, 10.6 million people had—got sick with tuberculosis. And it is curable, by the way. So when we talk about how many people die of it, TB's curable. We can fix it. There also is, um, a vaccine.

Now, in this country we don't get it. But it is something that you get, depending on where you live. So it's preventable, and it's curable, and it's still killing this many people.

**Justin:** That's a question of will and resources, right? [crosstalk]

**Sydnee:** Exactly, exactly. It is a public health crisis that persists that we are not doing enough about as a global community.

**Justin:** So having this—

**Sydnee:** There are entities addressing it aggressively. We should be doing more.

**Justin:** So this medicine coming off patent is gonna be a huge boon, right?

**Sydnee:** Exactly, because the regimen for multidrug-resistant TB that was out there prior to bedaquiline being introduced required, like, 20 months or more of treatment, a combo of medicines, daily injections, and they had

much higher adverse events related to those medications. So the previous regimen was difficult, dangerous, hard to deliver, not effec—I mean, well, effective. But, you know, not efficient, not applicable to most people.

Justin: Got it.

**Sydnee:** Bedaquiline changed the game. Um, but it was expensive. It was expensive as soon as it was introduced, you know?

Justin: Yeah.

**Sydnee:** Because it's a new med. And as Johnson & Johnson would tell you—

**Justin:** They wanna make their nut! They wanna make their nut back!

**Sydnee:** And again—well, but they—I think it's really important. Like, pharmaceutical companies are pretty good about not saying that.

**Justin:** [laughs]

**Sydnee:** Like, that is true. I mean, it's capitalism. They're for-profit companies.

**Justin:** Yeah. Yeah, it's a for-profit company. [crosstalk].

**Sydnee:** This isn't a charitable organization. Like, they're not—no. But they don't say that. What they say is, "Listen. We put so much money and time into this. Time that we could've done other things, we did this. So all that money, we have to recoup that for the next big innovation." Like, right?

**Justin:** "We're really hurting. We're really hurting over here." [laughs quietly]

**Sydnee:** Like, "That's the only way we can continue to innovate is if we make money, to, you know, encourage us to do so."

**Justin:** [through laughter] Yeah.

**Sydnee:** This is capitalism. Um, but here's what I would tell you about, and I want you to think about this as we talk about the patent battle that is maybe coming to an end right now. How much of bedaquiline did J&J pay for? Because when we talk about who dev—

**Justin:** The development or the pills?

**Sydnee:** No. Like, the—in the whole cost of making it, making it something that was approved and came to market, how much did they put in? Because there are studies out there you can find. I found a 2020 study specifically asking, who paid for this drug? Whose money was spent in the development of this drug, meaning who should get to profit off of it? Or, how much should it cost?

That's the bigger question. Not who gets the profits. But depending on who paid for it, is it fair for them to charge as much as they do? For the markup on these drugs to be as completely wild as they often are?

And by the way, those prices climb as they get closer to going off patent.

Justin: Weird.

**Sydnee:** Yeah.

**Justin:** Weird. It's so weird.

**Sydnee:** Mm-hmm. So here's what you need to know about bedaquiline. Public contributions, meaning clinical trials that were funded by tax dollars or grants, money that came from the taxpayers, okay?

**Justin:** You and I. J—Joe Worker.

**Sydnee:** So through public contributions it was between 109 and 252 million—these are US dollars. Tax credits were 22 to 36 million. Tax deductions were 8 to 27 million. Administration of a donation program was 5 million. There were PRV revenues that were 300 to 400 million.

Total public investment in this drug was between 455 to 747 million dollars.

**Justin:** It's our drug.

**Sydnee:** The, uh—J&J put in 90 to 240 million. So depending on—I mean, 'cause all of this, it's hard to get the—nobody wants you to know the exact numbers. So either way, the public contributed at the low end 1.6 times as much money as the private company. On the high end, 5.1 times as much money.

We pay for these drugs, everybody!

Justin: It's our drugs!

**Sydnee:** I'm not saying that the company doesn't also. I'm saying that the primary funder for medical innovation is us. Like, we, the people are paying for these medications. And then when we, the people see them approved by the FDA and then we can get them, and we're sick, and we're like, "Hey. I paid for that. Give it to me."

They say, "[hisses] It's gonna be thousands of dollars and your insurance company what cover it. Sorry."

Um, and this isn't just leveled at J&J. And every company that we lauded for making a COVID vaccine [laughs quietly] and we were so cheering on, our favorite big Pharma.

Justin: Yeah, remember?

**Sydnee:** Remember, they all do this. So this isn't one company. They all do this.

**Justin:** We're back. Classic Sawbones. Classic Sawbones is back. We're fighting again. We had a brief honeymoon with the drug companies when they were making COVID vaccines. [snorts] And now we're back on their butts.

**Sydnee:** So—and I mean, I think that the question is, how much money do you need to make off of a lifesaving drug before you consider it worth your while to save lives?

And I think this is hard, because there are scientists—we said this with the COVID vaccine. There are scientists behind all this who I know don't feel this way, who I know aren't making this, who aren't sitting there in their labs for days, and weeks, and months, and years, perfecting these molecules, thinking "I'm gonna make so much money!"

That's not what they're thinking!

**Justin:** Well, because they're not.

**Sydnee:** No, I know. That's what I'm saying!

**Justin:** And this is what sucks, is if you break it down to any individual human in the chain and you ask them about the morality of this, then they would probably say "Oh yeah, we should try to help people."

This is the problem. Living in a capitalist system, they are not just encouraged but required to try to squeeze as many nickels out of everybody as they can. [unintelligible] people getting freaked out about AI. It drives me crazy. You know we've already been living under the tyrannical reign of an algorithm for years now. It's a bunch of humans serving this algorithm that will give them the most money. Like, we've been doing it, right?

So no one is to blame other than—I mean, I'm sure there are people to blame. But the system is built for this. Like, this is what it's supposed to do.

**Sydnee:** I'm gonna start calling you Neo if you keep talking like this.

Justin: Really?

**Sydnee:** [laughs]

Justin: Like from The Matrix?

Sydnee: Mm-hmm.

**Justin:** That's—that's cool. Yeah. I could get down with that.

**Sydnee:** [laughs] No, but I mean, what you're saying—

**Justin:** I know kung fu!

**Sydnee:** What you're saying is right.

Justin: I don't.

**Sydnee:** And also, recognizing that, that a pharmaceutical company is not a single human. It's an amalgam of a bunch of different people who don't necessarily feel this way.

**Justin:** Extrapolate this out to housing developments, right? Like, we have homeless people. You're building building—you're building houses. Why can't you make them, like, so you make enough money to pay your people, and then also you put people who don't have homes in them?

Well, because that's not the system. The system is we get as much money for it as we humanly can, and otherwise we're failing the system.

I'm sorry, I'm-

**Sydnee:** And well, and we have a lot of, um, intellectual frameworks that have been constructed around that to tell us that it's the right thing to do. Um, but I think—but John Green called on this, and this helped turn the tide on this issue.

There are lots of people who work for these companies who are good people who don't agree with this. And if you ask them, the problem is that the corporation gets to be a thing of its own in this society. The corporation can have wants and needs and desires and demands. And it is much more powerful than we, the individuals.

**Justin:** Because it's a moral smokescreen that allows people to operate with moral impunity, because they're serving this—this capitalist system.

**Sydnee:** And things have moved far away from, like—I always think about Jonas Salk with the polio vaccine.

Justin: Mm-hmm.

**Sydnee:** He didn't patent it. 'Cause he said, "Could you patent the sun?"

Justin: Yeah.

**Sydnee:** We've moved a long way. Those people are still there.

**Justin:** [simultaneously] Now there's people—

**Sydnee:** There are Jonas Salk's there.

**Justin:** Yeah, but there's also people in the government who was like, "Can we patent the sun? Actually, that's a great idea, Jonas. Thank you so much.

**Sydnee:** I know. Anyway, um, so where does that leave us with bedaquiline and the patent? Why? It was filed initially in 2003. Generally, patents last 20 years. Generally. It's 2023. It's time for it to end. So what's the beef?

I'm gonna tell you after we go to the billing department.

Justin: Let's go!

[ad break]

[music plays]

**Speaker 1:** Hi, I'm Ketchup.

**Speaker 2:** And I'm Socks.

Speaker 1: And I'm Ball Bearings.

**Speaker 2:** And I'm Pigeons.

**Speaker 1:** And I'm Water Towers.

**Speaker 2:** And I'm Cardboard?

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[music and ad end]

**Justin:** You wanna hear a celebrity impression? "[shaky voice] Where's the beef?" That's the lady, the "Where's the beef?" lady.

**Sydnee:** Oh, that was good. That was a good one, I think.

**Justin:** '80s kids'll love that.

**Sydnee:** Okay. So, like I said, the patent should be running out this year. Everybody was very excited. Like, I found a lot of articles written last year that are like, "It's a new era. Bedaquiline's going off patent. We are so frickin' excited."

I love scientists who write that kind of stuff. I mean, like, it really—it's a big deal for saving lives. And by the way, patents and exclusivity are two

different things when it comes to pharmaceuticals, and they can run concurrently. You can have exclusive rights to a drug, meaning you can't have generics, and you can also patent a drug so nobody else can make it, and... I don't know.

But the important thing for this is the patent. They're all different rules, and I read them, and I wish I was a lawyer to understand them. Anyway.

So, J&J is fighting it because, um... kind of like what you said with Mickey Mouse. This is a good analogy, okay?

**Justin:** Another lifesaving... [wheezes]

**Sydnee:** Another lifesaving pharmaceutical.

**Justin:** [holding back laughter] Another lifesaving instrument. [wheezes]

**Sydnee:** Mickey Mouse. So in 2003, they patented bedaquiline. Well, in 2007, J&J filed another patent on it for another piece of it. 'Cause there's lots of different things that go into the drug itself, right?

There's, like, figuring out the active part that does whatever it does to the organism or in your cells or whatever. But there's, like, how you package it. There's how it gets into cells. There's the delivery mechanism. There's lots of different pieces to a pharmaceutical. And every one of those can be patented. So Steamboat Willie can be patented, but then when you add gloves, that can be patented. And then when you make him color, that can be patented. All that is true about medications.

And when you patent a new part, a term that they use for that is 'evergreening.' Do you restart the patent clock, basically? Have you made it so now we're 20 years from 2007? Which is what J&J has been saying.

"Well, actually, we're gonna honor this in four years. Because that's when the patent expires, because of this other thing we did in 2007."

Which is legal, by the way. Like, they're not doing anything that isn't legal. This is legal. You can do this.

**Justin:** It's worth—it's worth noting, also, that in Disney's case they have fought and lobbied to change the law. [wheezes] The law, to make it so that Mickey Mouse doesn't go into the public domain.

**Sydnee:** [laughs quietly] Well, and J&J is not doing anything that is illegal. Which shouldn't give them—I mean, that doesn't let them off the hook. What it says is, who wrote the laws, and whose interests were they serving? But—and I should just—by the way, there are TB activists who have been trying to make this happen for a long time, who have been arguing these cases for a long time. Like, this isn't... we, all of us in the podcast and video and social media world who pay attention to these things and do our best to be science communicators and do our best to tell you about stuff, like, we are standing on the shoulders of giants who have been doing this kind of work for a long time.

And there was a huge global campaign in October of 2019 where Medicins Sans Frontieres, which is Doctors Without Borders—

**Justin:** It sounds a bit—don't you think it's better, though? Medicins Sans Frontieres is so much better.

**Sydnee:** [crosstalk] Um, but they got together with TB activists and they had this huge campaign outside all the J&J offices in the US, in South Africa, in Brazil, in Belgium, in Ukraine, in Spain, basically demanding that they lower the price of bedaquiline to no more than a dollar a day for patients with MDRTB.

Um, so this has been happening for a while. Now, all these activists demanding this doesn't always necessarily mean they change their minds, but that has been building to this. And this happened, by the way—we have talked before about, like, the initial AIDS epidemic. These sorts of things happened, right?

Demanding, like, people need these drugs. We can't wait. We don't care about your patent. 20 years is too long. Do you know how many people will die? Do you know how many people would die in the next four years if they maintained their patent?

**Justin:** How many?

**Sydnee:** 6 million.

**Justin:** That's so many!

**Sydnee:** Mm-hmm. So how can you make more than one patent on a single medicine? That was a question I had. Well, we kind of talk about that. Like, you can patent different pieces of it. There can be novel stabilizers or capsule coatings or, like—a good example is the delivery mechanism of albuterol.

So a lot of you may use an albuterol inhaler—

Justin: I do.

**Sydnee:** —if you have asthma or COPD or something like that, right? And it helps open your airways, this drugs. It's an old drug. Um, the delivery mechanism of your little teeny inhaler, the little L-shaped thing that you squirt in your mouth, that changed at one point. Mainly because we wanted to eliminate chlorofluorocarbons, CFCs that were used in the, you know, in the way that it squirts into your mouth.

And when they changed that they were able to extend patents. It's why albuterol inhalers have stayed expensive. Nowadays they're finally generic, some of them. But, like, for a long time, I remember buying my patients their albuterol inhalers 'cause they didn't have insurance. This was prior to the Affordable Care Act. And, like, the cheapest—

**Justin:** Thanks, Obama.

**Sydnee:** [laughs quietly] Yeah. No, literally, thank you. The cheapest that I could often get was between 40 and 50 bucks. For a—I mean, literally a lifesaving inhaler, for a drug that had been around for who knows how many decades? But anyway, so you can do that.

So, to give you an idea why bedaquiline isn't the end of this fight, the top 12 brand drugs on the market last year were protected by 848 total patents.

**Justin:** Phew.

**Sydnee:** It's an average of 71 per drug. That's... that's 38 years without competition, on average. So that 20 years is just—like, that's the opening [laughs quietly] offer from the patent office a lot of the times.

Humera, which treats a kind of arthritis and is a really important drug—and you can read, there are lots of articles about how Humera, they had 132 patents that were granted. And that was, I think, less than half of what they attempted to patent. I think they tried to patent over 300 different aspects of Humera, and have made billions off this drug, by the way, that is absolutely essential for some people, and they just cannot get access to.

And they call these patent thickets, by the way.

**Justin:** Patent thickets? That's accurate.

**Sydnee:** Uh-huh. You create a patent thicket around your drug so that you can make as much money off of it for as long as possible. Um, there is a patent thicket of 96 patents around Revlimid, which is a cancer drug. So that could—if they all hold, that's 40 years with no competition. Same with Lantus, which is a really essential insulin. A lot of my patients need it or use it, and it had 49 patents.

So anyway, this is not just a J&J problem. This is a systemic problem. Now, the Green brothers brought a lot of awareness to this. A lot of people on social media took notice. There was a lot of pressure on J&J to do... we say "Do the right thing," but I think this is all, like—this is moral relativism, right? In this situation, the right thing is to let the patent expire. I think there's probably a better right that could have been done.

Justin: Right.

**Sydnee:** But we're past that point. So to do the right thing. And they got—and they—this is in addition to all the pressure they were already getting

from the global community for years now, right? This sustained pressure. This was sort of the tipping point. And Johnson & Johnson announced yesterday, that was Thursday the 13th, that they had granted Stop TB Partnership's Global Drug Facilities licenses that enable Global Drug Facility to tender, procure, and supply generic versions of—the brand name for this is Sirturo.

Justin: Sirturo!

**Sydnee:** For bedaquiline. For the majority of low and middle income

countries-

**Justin:** Sounds like a scuba instructor, doesn't it?

**Sydnee:** [laughs quietly]

Justin: "And I am Sirturo. I'll be guiding you through the depths."

Sydnee: Uh, for the majority of low and middle income countries, including

countries where patents remain in effect. So that all sounds good.

Justin: Okay!

**Sydnee:** That sounds good. Hopefully that will play out like they say. Now, I always think, like—I mean, they can supply generic versions for the majority of low and middle income countries. For the majority. So there's wiggle room in here. [laughs quietly] And I think that that, of course, is concerning.

And so in response to that, as John Green pointed out, what we still need to get Johnson & Johnson to do is commit to this deal with the Global Drug Facility in perpetuity. Like, don't go back on it next year when you decide to file a new patent because you did something else or whatever, or because you decide to defend one—I mean, I don't know how many patents there are on bedaquiline. These are the two I know about. How many could there be?

**Justin:** And if you are gonna do it, will you at least give Sawbones a heads up this time—

**Sydnee:** [laughs]

**Justin:** —so we can get out in front of this thing and not leave the Green brothers to get all the credit?! Really, guys? He hasn't done enough? John— [unintelligible]—John Green writes the bestselling book of that—the year that Fault in our Stars come out. Hank has—everybody loves Hank now, because he's in an incredibly inspiring cancer battle! This is ridiculous! Let us get a hand on the ball, please! We're all trying our best here! The Green Brothers are making coffee that funds, like, villages and stuff! Like, please, guys! Leave a little bit of credit for the rest of us! Please leave some good works undone!

**Sydnee:** Should I me—like, we are friends with the Greens. We like the Greens.

Justin: No! Not—we used to be!

**Sydnee:** This is a—this is a goof.

**Justin:** This is a se—no. No, Syd.

**Sydnee:** [simultaneously] This is a goof.

**Justin:** Make—keeping the TB drug generic is a step too far, Hank and John. You hear me?!

**Sydnee:** [laughs]

**Justin:** [through laughter] You've gone too far!

**Sydnee:** You've saved too many lives!

**Justin:** [through laughter] You've saved too many lives and done too many good works! [crosstalk].

**Sydnee:** I'm the doctor here!

**Justin:** Leave something for the rest of us! And I'm a podcaster! This is as I get, guys. You gotta give me something.

**Sydnee:** Um, a couple other things, remember. In addition to the deal being in perpetuity, they need to give us a list of what countries do you mean? What do you mean, the majority?

**Justin:** [laughs]

**Sydnee:** Like, which ones, and who are you leaving off, and why? And—I mean, I think that that's a little sketch. And then publicly acknowledge—and this is the other part, any other patents, that this amounts to a functional abandonment of secondary patents on bedaquiline in countries with high TB burden. So that's the last piece of this that they really need to do, because otherwise they could—I mean, like I said, companies create these patent thickets where they can just call on a different patents.

Justin: Oh.

**Sydnee:** And, I mean, the problem is, like, if you start making these generics and then they decide, like, "Okay, actually we only were giving you this deal for a year and it's over now, and now we're defending our patents again."

They've got the weight. They've got the money. They've got the power. They've got the legal, you know, prowess. Like, they've got it. They can do that. They can stop you. And those of us who work in, like, healthcare activism or in these, like, medical nonprofits or these—I mean, there's only so much we can do to fight back. Now, you know who could fight back?

**Justin:** The Green brothers.

**Sydnee:** Well, obviously the Green brothers. Aside from the Green brothers.

Justin: Yeah.

**Sydnee:** The governments!

**Justin:** Oh yeah, yeah, yeah. I forgot.

**Sydnee:** Why are pharmaceutical companies allowed—

**Justin:** [simultaneously] Those are like, if you're not aware—

**Sydnee:** —to, you know, do this to us?

**Justin:** Yeah. So you're saying there's still more work to do.

**Sydnee:** Yes. I'm saying that sustained vigilance, attention, outrage, is necessary so that they don't go back on these things. So that they don't—and this happens a lot when a corporation comes under, like, a negative spotlight. Is they'll do something quickly to try to, like, kill the noise.

And then everybody goes "Oh yay! We fixed it!"

And then they move onto the next thing, right? 'Cause that's the nature of—especially, like, with social media? What's the next thing, what's the next thing? That's how we all are sort of trained.

**Justin:** So you're saying that the Greens left the job half finished.

**Sydnee:** No! I'm not saying that!

Justin: Pretty sloppy, guys! Guess it's time for Sawbones to take over.

**Sydnee:** No, because John is the one that pointed out that we need to continue to demand these other things, because it's not enough to just stop there. We need more. And I don't know—I mean... I don't trust—

**Justin:** The Green brothers. Me neither!

**Sydnee:** No!

Justin: Yes!

**Sydnee:** If a company—and this isn't even about trust, 'cause I don't want to make this an emotional thing. If a company's goal is to make money—which it is. If you build a business that's for profit, what's your goal? Make money. Like, that's intrinsically what it is. Like, you do whatever else you do, but like, your goal is to make money, you know? You don't, like, sell pants because you are passionate about, you know... I mean, maybe you're passionate about pants but like, you hope to make money off the pants. Right?

**Justin:** You've really got me with this metaphor. Please keep it going.

**Sydnee:** When—in healthcare, my goal is never to make money. My goal is to take care of people. And so when the two start getting intertwined, people will get hurt, inevitably. Because the companies are trying to make money, and those of us who need to get these drugs to the patients are just trying to save lives. Our goals are not the same. And sometimes they run at cross purposes.

'Cause I don't care if you make money. Give me the frickin' pills so people don't die of a curable disease in the year 2023. And people are not sentenced to die because they happen to be born in a part of the world with less healthcare resources, or because they happen to be born impoverished. That is not the equitable society that we want to live in.

And so healthcare cannot be left up to the capitalist free market.

**Justin:** Uh, thank you so much for listening to our DSA podcast.

**Sydnee:** [laughs quietly]

**Justin:** [through laughter] Uh, we hope that you have enjoyed it. Um, we—

Sydnee: Can—

Justin: Sorry, go ahead.

**Sydnee:** Can I say one other thing? We've talked a lot about the Green brothers, who again, I would just like to reassert, we are friends with. And you are just goofing around.

**Justin:** Listen, you can—you're out on your own on this one, okay?

Sydnee: And I would also like to say—

**Justin:** [snorts]

**Sydnee:** —a lot of you wrote in when Hank announced his diagnosis and asked us to talk about the type of cancer Hank has and all that. Here's what I would tell you. First of all, Hank of course is an excellent science communicator, and if you are not already following and listening to the various things Hank puts out in the world, whether YouTubes or TikToks or whatever, you should be. Because Hank is doing a far better job than I ever could of educating people about what he's going through and what the implications of that are.

I mean, not just his personal experience, but like, the scientific ins and outs. He is doing a—I don't even have the words for it. An incredible job.

**Justin:** It's incredible. It is truly incredible.

**Sydnee:** He's made me cry many times watching the strength of going through it, and describing it in great detail. And I don't—there's no need for me to tell that story, 'cause he's doing it.

**Justin:** You can follow him. His TikTok handle is @themcelroyfamily, so go follow him right now.

**Sydnee:** [laughs] Justin!

**Justin:** It's what America needs you to do, and I think the Greens'll really appreciate it. Um—[wheezes]

**Sydnee:** And of course we all are thinking about Hank and wishing him the best.

**Justin:** Yeah. By the way, they're genuinely actually good human beings, if you know them in real life. They are as good as they seem.

Thanks so much for listening. Thanks to The Taxpayers for the use of their song Medicines as the intro and outro of our program. And thanks to you, the people, for listening. We appreciate it so much. That's gonna do it for us for this week. Until next time, my name is Justin McElroy.

**Sydnee:** I'm Sydnee McElroy.

**Justin:** And as always, don't drill a hole in your head.

[theme music plays]

[chord]

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