

DOPE LABS

Transcript of Lab 044: 2021 End of Year Mixtape

Titi: All right, y'all, it's December 30th, and that means that there are two days left in 2021. I can't believe it. 2021 felt like it was a month long and then at some point ten years long.

Zakiya: Oh, a lot of the 10 years long part.

Titi: So much happened this year, and so we knew that we have to bring back our end of the year mix tape again.

Zakiya: It was only right.

Titi: Yes, we had to bring it back just so that we can cover some of the topics that we weren't able to cover this year. I mean, we just came back.

Zakiya: We just came back in November. We've got 10 months to get through.

Titi: And y'all have been asking, Where are y'all? So we're going to recap everything that we weren't able to talk about while we were away. Welcome to Dope Labs, a weekly podcast that mixes hardcore science, pop culture, and a healthy dose of friendship.

Zakiya: 2021 is a rapidly coming to a close.

Titi: I can't believe we're at the end of 2021 already.

Zakiya: Yes. You know what time it is then. It's time to look back on all the biggest stories of the year. Dope Labs style.

Titi: Yes, it is time for our annual End of the Year mixtape.

Zakiya: Here's how it's going to work. We will cover the biggest stories in five different categories, and then we're going to do a little mini dove section for each one of those.

Titi: So here are the categories. It's tech, health and wellness, politics, sports, and music.

Zakiya: Let's jump into tech. I thought 2020 was the year for tech, but 2021 said "hold my coke".

Titi: Absolutely, With people working from home since the pandemic hit, and then all of these new technological advances that have been pushed to the forefront because of this new virtual landscape that we're working in, tech is on the tip of everyone's tongue.

Zakiya: And specifically the metaverse.

Titi: At the end of October. Facebook announced that they will now be referred to as Meta.

Zakiya: Metaverse is just another term, and it feels boring. Just like you remember what people were calling the internet the information highway. I didn't know what that was.

Titi: Yes. And then I remember people calling it cyberspace. And the first time anyone ever heard of that word was in 1982, in a short story by William Gibson titled Burning Chrome.

Zakiya: And then now we have Metaverse. And here it is what 2021. But that was coined by Neil Stephenson in his book Snow Crash and that came out in 1992.

Titi: So it seems like the term metaverse has been around way longer than we remember. You know, it's not a new thing that Mark Zuckerberg just came up with, but I still have a lot of questions about what is all going into it.

Zakiya: I think the key distinguishing feature is that a metaverse is free forming. There is no mayor of the town, so you have people controlling games. And even though we're all working together and harvesting corn or whatever in these farming games, you can only do what's been decided by the creators of the game. And I think that's the distinguishing feature of the Metaverse is that eventually you get on there and you do whatever. I think they just had the first metaverse marriage recently.

Titi: It's just seems like, like you said, there's a lot more autonomy in the metaverse. You know how some of these games you'll be running and then you'll be running into an invisible wall because.

Zakiya: No more game.

Titi: you reached the bounds of the game. The Metaverse, there's no such thing. You can do what you want.

Zakiya: I think we got to really give our props to verse as the predicate because people have been using it all around the Marvel verse. The MCU verse and the DC comic verse. And so the idea of creating these universes or ecosystems, if you will, is not new, like you said Titi. And Facebook isn't the first player here. They're just a player with the most money, the player that really needed a rebrand after being called out for terrible practices.

Titi: We all know things that are kind of like meta. When we were growing up, it was Sims. And then there's things now like Roblox and Fortnite, where you're in this world where everybody can create their own experiences, but then also interact with each other where it will feel like a hybrid of our online social experiences sometimes expanded into the physical world. So imagine you're walking around and then you can see something from the metaverse in front of you and interact with it. So it creates this immersive experience with other people, even when you can't be together.

Zakiya: And it feels like we've been leaning this way for a long time before Sims, that was the Tamagotchi, something that continues to go on and on. Whether you were playing with it or not.

Titi: Yes, I remember when my fifth grade teacher took my nano baby from me and she held it in her desk overnight because I was playing with it during class. I got that nano baby back the next day and I had to put him in the hospital for days. I cried.

Zakiya: Oh my gosh, your own version of the NICU the Nano Baby Intensive Care Unit, but you were able to rehab. So you're Nano Baby got out.

Titi: Yeah, but then my mother was like, Enough of this.

Zakiya: Enough is enough. I know that's right Mrs Shodiya. Get Titi together. But so Tamagotchi, Nano Baby, Sims, you remember when I was playing that farming game on my iPod Touch?

Titi: Yes,.

Zakiya: OK. And we were going out and my mom and God mom were behind the house and I was like, Please harvest this corn while we're gone. OK, I need you to harvest these crops.

Titi: We've all been interacting with things that were meta adjacent or really just the meta itself, but now Facebook is trying to formalize it where everybody is going to the same place. Do you think that people are going to be interacting with the metaverse?

Zakiya: Absolutely. Listen, I've seen some articles where basically they're already fumbling the ball, OK? They're interacting. But why would you create the exact same systems that exists here and are terrible in a metaverse?

Titi: Yeah.

Zakiya: People are buying property, buying it up. That's fake scarcity. Don't we have enough gigabytes to go around?

Titi: Honestly.

Zakiya: Isn't there enough space for everybody to have a plot of land and live? Why recreate capitalism?

Titi: And the drive for them to buy this land and buying it so early in this whole metaverse is so that they can establish themselves as the socioeconomic elite inside of the Metaverse. So when it comes time and more people start to go to the metaverse, they already own a lot of land, they own property. They've already established businesses so that they can be wealthy within the metaverse.

Zakiya: But I feel like if the metaverse is digital,

Titi: there should be enough space for all of us.

Zakiya: Yeah, pan left. Make more room.

Titi: I have seen my niece and nephew play Roblox and interacting in this Roblox world where there's a ton of other people playing and interacting with each other, people are building houses. It really makes me wonder about what our futures look like. But I also have heard that some people are speculating that generation alpha. So I'm not talking about millennials like me and you are or Gen Zers. Generation Alpha is folks that are born between 2010 and 2024. So they're all children right now that maybe when they get to be adults or nearing adulthood, they'll start to push back on all of this technology that is seemingly supposed to be connecting us more, but not in a human one to one connection. They're going to start to say, no, I am opting for more human connection rather than virtual connections. So it'll be really interesting to see what happens because to me, it feels like we're going at warp speed towards everybody, never leaving their houses and having virtual reality goggles on all the time, but maybe generation alpha will be the ones to help swing the pendulum the other way. OK, let's jump into health.

Zakiya: There's so much going on in the health and wellness front. We spent the early part of 2021 talking about vaccines and then variants, and then the Omicron variant, which we keep learning new things about every day. I think it goes without saying nobody deserves to get sick, right? I think illness is just part of nature and everybody can't afford to stay home unless you're independently wealthy. And if you are, I will send my cash app. But you know, people have to live, and for some people getting together with others, that has its own benefits. And so when everybody's making their own individual risk assessments, it's really hard because the transmissibility seems through the roof on Omicron, and I think we'll just keep learning more every day.

Titi: Yeah, the last thing that I heard, which I mean by the time folks listen to this, it might be different, was that Omicron is on pace to be the most dominant variant in the UK by the top of 2022 more than any Delta cases, more than any of the other cases that we've seen, which is mind boggling to me and a little bit scary.

Zakiya: Mm hmm. And right now, there's a lot of conversation saying, Oh, is milder, but it's like, Hey, if transmissibility is high and it's harder for it to infect tissues in the lung compared to the bronchus, then there's just all these things we haven't had enough time with it. And that's the tricky part. We don't get to press the pause button until we can get more data and so it's just

really tough and really changing daily by the hour. New update, new update. But there was some good development, and that was with those COVID pills.

Titi: Yes, I saw that. It seems really interesting because I think with a lot of these things everybody's looking for, if I get sick, what do I do? And so it seems like there are two new COVID pills that are going to be hitting the market and are expected to work against all versions, all the variants of the virus.

Zakiya: It feels like there are some things that people are missing when it comes to COVID in general, even though we're in year three of it, especially when it comes to omicron. And one of those things is that this is highly transmissible, and so it's not a matter of whether or not you're going to get exposed, but how prepared you're going to be when you get exposed.

Titi: Yeah.

And then because it's so highly transmissible, that means that denominator number when we talk about oh, was mild, it's often mild. And so if we say, OK, let's say only 10 percent of the cases are severe, 10 percent of a really big number is still a really big number, and that has the potential to overwhelm our hospital system. And so that's not just folks who are dealing with COVID, but folks who are having other health situations going on as well. And so that's why this pill is so important, because if we think about the moderate to severe cases which we know, we will see more of those just by the sheer denominator rising because of the transmissibility of omicron. This has the potential to clear folks out of the hospital much quicker so we can continue to take care of routine health things that need to be managed that our health system just isn't equipped to handle alongside COVID without intervention. So now we have a second line of defense. We have vaccines and we have COVID pills if you do get COVID and people who are vaccinated can still get COVID. Right. And so it's not either or is. We need all the tools we can right now. And and and.

Titi: Right. And it's really exciting because even with just some of the preliminary results, it's showing that one of these drugs has been 85 percent effective when taken within five days of the start of symptoms. So that's really exciting

Zakiya: But something started to happen in the pandemic in 2020, and it really bled over to 2021. A lot of people started to go the way of Jessica Rabbit.

Titi: Yes. Brazilian butt lifts or as it's colloquially called BBLs.

Zakiya: Yes, Buffy the body really set the trend for y'all. OK?

Titi: If you know Buffy the body, get on Instagram and comment under our post.

Zakiya: Yes. Let me know that you know. OK, she's the OG.

Titi: She is.

Zakiya: That's who Jessica Rabbit could only hope to be in plastic surgery in general has been going up.

Titi: Yes. So with the BBL procedure, it's a two part procedure. First, the doctor performs a liposuction, so they're using a machine that pulls out the fat from the patient, from areas of your body where you have fat, where you don't really want it, and then the fat is put into a centrifuge, which in this case is a device that's used to separate out fat from any other fluids like blood so that they can take that fat and then re-inject it back into the patient in their posterior.

Zakiya: Plastic surgery in general has been going up because people are looking at our faces, you know, we're on Zoom, we're looking at ourselves much more. We're not meant to look at ourselves this much. And really, there was some foreshadowing because in lab 002 edges snatched Dr Monte Oyd Harris told us exactly that.

Dr. Monte Oyd Harris: There's been no other time, probably in the history of human civilization. Right, that folks are engaging in looking at themselves as much as they are now. So I started to see a growing and growing misalignment related to this notion of self image and self fact. Right .who are you really at your core? And then what's this layer of images that's on this? And is this misaligned or aligned. And so as the misalignment started to get bigger, particularly with patients that were looking for the change in their nose or changing their lips, you know, I was like, This doesn't really add up anymore for me.

Titi: You know what's also crazy? Zoom isn't helping because you can put a filter on yourself and zoom,.

Zakiya: Right.

Titi: I was on a Zoom call and I added eyelashes and lipstick. I looked fabulous, but that's not how I looked in real life. So once I got off Zoom, I was like, awwww.

Zakiya: And I'm all about people looking the way they want to look, looking in ways that make them feel good. I think the bone I have to pick with the BBL is the risk that's associated.

Titi: Yeah,.

Zakiya: So it's really popular, but it's also the deadliest. So roughly two in every 6000 BBLs results in death. This procedure is dangerous not just because you're moving fat around in the body, but because it's being put in the butt, which has a lot of vasculature. So what can happen is you can easily get fat in a blood vessel and boom fats in your heart now.

Titi: Yeah and I think that a part of the problem is that a lot of these things are being done in secrecy and people are traveling outside of the country to try and get these procedures done because there are a lot of plastic surgeons who refuse to do BBLs. And so folks are traveling outside of the country to find doctors who are willing to risk it so that you can get the body that you want.

Zakiya: And I think a lot of it that makes it really tricky is that there's A, like you said, people going to doctors trying to find something that's affordable. B fewer plastic surgeons are doing these procedures because of the risk involved. So what you get is doctors who may not be specialists that are doing these procedures. So now you have something that's high risk and somebody who's not specifically trained for it, that's a nasty combination. And third, because people are traveling, they're playing a kind of loosey-goosey to me with the post..

Titi: Yeah.

Zakiya: Operation Care, there's a lot of post-operation care that has to be done after a BBL. So like lymphatic draining and checking to make sure there's no infection. So if you've traveled, if you can't stay in that same place or there is nowhere for you to stay to get post-op care, you've got to travel back, which makes you susceptible to infection.

Titi: Yeah getting on a plane, your body is being battered up there, OK, because the air pressure is different, you're at a different altitude. Our bodies are really fighting while we're up in planes. And so if you've undergone such a major surgery, anything can happen.

Zakiya: Yeah,.

Titi: Because you are putting your body in this distressed state while you're in a distressed state.

Zakiya: And if you're flying commercial, you're sitting on that BBL, which you probably shouldn't be doing.

Titi: You're not supposed to. You're supposed to be laying flat on your stomach.

Zakiya: I believe in doing what makes you feel good.

Titi: If you like it. I love it.

Zakiya: But I also want you to know what your risks are. And so I think it's really easy to see the end product and be like, Yes, that's what I want. But I just want you to know the in-between stops as well.

Titi: And not to mention that these procedures aren't covered by insurance.

Zakiya: Yes.

Titi: So a lot of people are spending a lot of money.

Zakiya: It's so important to find a surgeon that you trust. So do your Googles. Read the testimonials. Ask somebody that you know that got a BBL multiple forms of information. That's the way to go.

Titi: All right, let's take a break. But when we get back, we'll dive into our last three categories for our 2021 end of the year mix tape, starting with politics.

Zakiya: OK, we're back. And before we dive into our 2021 mixtape, what are we dissecting on next week's lab?

Titi: Next week, we're starting a special series for the New Year that's focused on health, wellness and setting yourself up for success in 2022.

Zakiya: And our first episode is going to be all about sleep.

Titi: I love sleeping.

Zakiya: We all know that getting a good night's sleep has major health benefits, and most of us wish we could get more of it. So we're talking to Dr. Giardin Jean-Louis all about how to get better sleep. Plus some really interesting insights on sleep disparities. Some folks are more vulnerable to bad sleep than others. I think that's me. Don't miss it.

Titi: All right back to our 2021 End of the year mixtape, and our next category is politics.

Zakiya: 2021 has been a political thriller in real life. Honestly, like somebody just dropped us into multiple movies.

Titi: You can't write a better book.

Zakiya: We start at the top of the year with insurrection. How can we have a parade and overthrow the government? All in one? A parade, a riot, and the collapse of democracy?

Titi: Yeah. And seemingly the president was in on it. The orchestrator?

Zakiya: It just really got wild. So there's that. So in March, the Derek Chauvin trial began, and that went on for a while up until June 25th, when the judge sentenced Chauvin to 22 and a half years in prison. And two thirds of that has to be served before he's eligible for parole.

Titi: In September, we had the 20th anniversary of 9/11, which is really crazy, it feels. I don't know if it feels like it was 20 years ago.

Zakiya: No.

Titi: And just before then, on August 30th of 2021, the U.S. armed forces withdrew troops from Afghanistan and also in September in Texas, they passed a law called the Texas Heartbeat Act, and this is the most restrictive abortion law in the nation for abortion access. This law bans abortions at around six weeks, which is before most people even know they're pregnant.

Zakiya: And the wild aspect of that law is that anybody, whether they're related to you or not, if they think you are performing or facilitating an illegal abortion, they can sue you for a minimum of \$10000 in damages.

Titi: What is happening?

Zakiya: You know, when you really look back on it, it kind of feels like the political theme of 2021 is around civil rights.

Titi: Yes.

Zakiya: You know, because it felt like maybe there was some progress when you think back to the Derek Chauvin trial and the response to, you know, police violence and brutality. But then it felt like we took a step back because in November, Kyle Rittenhouse was found not guilty, even though it's factually known that he shot three people and killed two of them at a protest against police violence.

Titi: And he went to this protest with an AR 15 style rifle that he purchased illegally. And he also crossed state lines with that illegal rifle.

Zakiya: And there's also the whole restricting of voting rights and the campaigns for that. All the civil rights things that we thought were over was like, we take a step forward, we take a step back, we take a step forward. Think about the McMichaels who killed Ahmaud Arbery. They were convicted of murder. That was in November.

Titi: And that felt like a step forward.

Zakiya: It felt like a step forward. But here we are in December, back at the Supreme Court with Dobbs versus Jackson Women's Health Organization. So this is a case that could be the biggest abortion case the Supreme Court hears since Roe versus Wade.

Titi: Yeah, it's really crazy, but I'm trying to keep hope alive, trying to be optimistic about a lot of these things. Like you said, it feels like, you know, two steps forward, one step back, sometimes ten steps back, and it can be very draining.

Zakiya: I'm tired of people doing the cupid shuffle with my rights. But honestly, this really feels like just the tip of the iceberg for politics. We couldn't put everything in the show, so be sure to check out our show notes at dopelabspodcast.com to see all of the stuff that happened this year.

Titi: The Summer Olympics happened this summer, and it was very exciting because it had been postponed a full year because of the pandemic. Even though there weren't any spectators in the stands per se, it was still really exciting to see.

Zakiya: Yeah, it just feels weird to have the Summer Olympics in an odd number year

Titi: and having the Winter Olympics right around the corner.

Zakiya: We saw athletes stand up for themselves in a really big way this year.

Titi: During the Summer Olympics, we had Simone Biles pushing back really significantly when it came to her mental health and her ability to perform as a result of her mental health and prioritizing herself.

Zakiya: And that was right on the heels of Naomi Osaka withdrawing from the French Open due to depression and mental health concerns as well. So it felt like we really had some momentum, and a lot of other athletes were rallying behind them and cosigning saying, Yes, we agree with this, and it's so important to be able to stand up for yourself and say my mental health is just as important as my physical health when it comes to my performance.

Titi: Simone Biles is struggling with during the Olympics is what's called the twisties, and that's when the mind and body don't connect. And so while she was flying through the sky, as she does and doing all of these flips and things, she would not be able to figure out what's up, what's down, where she was in 3D space. And so that was affecting her ability to be able to land safely. And so if she's experiencing that, you would think everyone would say, OK, that's very dangerous. But people were saying, No, you're a disappointment and you should be pushing yourself. And it's not about her physical strength, it's about her mind not being able to do the things that she normally can do. And I think what's more important when she's doing those flips is that she lands safely.

Zakiya: Yes. Do you know what type of positional self-awareness you have to have to do those stunts that Simone Biles is doing? I don't like to go from the couch to the kitchen when I stand up too fast and sometimes I feel dizzy, I sit back down.

Titi: If you can't spin around in the sky five times and land on your feet, I don't want to hear nothing you got to say about Simone Biles.

Zakiya: Simone Biles isn't the only athlete making a big stance, shaking up things, making it drop.

Titi: I love these metaphors.

Zakiya: Yes. Our new favorite athlete, Megan Thee Stallion, really shook the table with that Nike deal, and that takes us right from sports into music.

Titi: Yes. A lot has happened with music over the last year. Olivia Rodrigo made her big splash and took over the radio and every form of media. You couldn't go five minutes without hearing an Olivia Rodrigo song. Beyoncé became the most awarded woman in Grammy history and became a Grammy Award winning rapper herself with her song with Meg the Stallion.

Zakiya: Yes,.

Titi: We had the death of DMX, which was really, really sad.

Zakiya: I remember exactly where I was when that happened.

Titi: Where were you?

Zakiya: At an outdoor bar in D.C. Shout out to Arro he was bartending that bar played, like all DMX after that, and everybody was just all in the feels. You know, it was sad, but it was also a celebration of his life as well.

Titi: Yes, I mean, what a time to be alive, to be able to experience DMX and that amazing music. Oh my gosh. If you don't have DMX and the Ruff Ryders in your Spotify playlist.

Zakiya: Make it happen.

Titi: And also Adele after what felt like too long.

Zakiya: Yes.

Titi: Of being away came back with her new album 30 and really just took over everybody's lives. I mean, everybody's just been scream crying and sobbing, even though they're perfectly happy. Adele has that effect on people

Zakiya: Yeah. Did you see Plies?. Plies was singing Adele.

Titi: Listening to Adele and her new album there were so many moments where you know when the the hairs just stand up all over your body because you have so much emotion. I learned what that actually is. There's something chemical going on. I'm sure you already knew Z, but these things always blow my mind. It's something called frisson. There's actually something chemical going on in your body. And our friend Cole Cuchna, he has a show called Keynotes, where he takes an aspect of music, and he really gets into the nitty gritty about it. And he did an entire episode on frisson, which is the chills that you get when you experience certain emotions. And so what's happening is that our brains are constantly trying to predict the future. But with music, as you're going through a song, it might have the same, you know, melodies, the same chord progressions that's just repeated over and over again in this anticipation is building. And then once something memorable or different happens, there is a dopamine release in our brain, which is our reward, and that then leads to the chills. And so if you're listening to a song and you do get the chills, try and think about what is actually happening in the song. Is it a part where the singer is going into a really beautiful falsetto? Was there a change in the melody and usually based on what I learned listening to that podcast episode, it aligns perfectly with something like that when I get the chills and when something is changing in the song.

Zakiya: And once you have that reward, your brain wants to do that over and over again. I know for me, I feel that in scary movies like that anticipation and the suspense building, and when is something going to happen? Love it. You know who else came back there and I was waiting for them? I was waiting for them in the front door. Silk sonic.

Titi: Yeah, silk sonic. They come out with like one song and we get our whole lives and then we don't hear from them, then they come back with another banger. I love it.

Zakiya: Silks on it got a huge bump. Everybody was talking about it. And I remember the way I found out that the album was released is on Twitter or somewhere. Maybe somebody text me and said, Did you listen to it? It said "a e w s". And I was like, What is that? An evening with silk sonic acronyms like. It's just

Titi: acronyms already.

Zakiya: Already. But you know, it was giving me all the vibes of the groups I like. I want to feel like the Delfonics are back in there in style. You know, that's my group.

Titi: Do you have a favorite Delfonics song?

Zakiya: Oh, it's hard, but I have a beautiful winter playlist and it has Al Green, El DeBarge, Curtis Mayfield, Donny Hathaway, Aretha Franklin, Eddie Kendricks, the Delfonics song that I like on here is "I gave to you".

Titi: So that 70s vibe is coming through with silk sonic.

Zakiya: Put your bell bottoms and platforms.

Titi: What is that? Is it the trumpets horn?

Zakiya: I wish you see TV right now. She's playing every instrument at once.

Titi: It just feels super 70s, right? I mean, they definitely amp up the 70s feel of it with the way that they dress when they perform and the just the look of their videos always feels super 70s. But there's something about the music that just makes everyone feel good like a good 70s jam does.

Zakiya: And even if you don't know exactly what it is, you can feel it. You can feel it when it washes over you. I wish we could have some 70 style music coming in right now. Yes.

Titi: Rob, right? Yes. These wind chimes like the electric sitar, things like that. I feel like are quintessential 70s music.

Zakiya: Yes.

Titi: Is there something you're looking forward to in 2022?

Zakiya: It's hard. I don't feel hopeful.

Titi: Oh no.

Zakiya: I'm looking forward to humans being better.

Titi: Yeah, that's always my hope going into every year. I think I'm hoping for us to really turn a corner with this pandemic and for us to creep closer and closer to things getting back to quote unquote normal. I know that with the omicron variant that a lot of travel has been disrupted and especially around the holiday season, that was tough for a lot of people. But that's my hope for 2022 is that at some point folks can start to resume their lives and we can put this pandemic in the rearview mirror. So for one thing, this week we are going to run through some of our favorite things from a lot of different categories. So first, we're going to start off with movies. Zakiya What was your favorite movie of 2021?

Zakiya: You already know?

Titi: I already know

Zakiya: Dune.

Titi: I wasn't even going to watch this movie.

Zakiya: You weren't going to watch it?

Titi: No, I didn't. I was like, I love Zendaya. Shout out to my girl Zendaya. But I was just like, I don't know. I was blown away

Zakiya: What? It was only on my recommendation?

Titi: Legitimately.

Zakiya: Oh, I feel so honored.

Titi: Yeah, I only watch because you said you have to watch.

Zakiya: I think dune and The Harder They Fall. I really enjoyed that, too.

Titi: That was a good one. I really enjoyed the harder they fall. My favorite movie from this year was Shang-Chi. Did you watch Shang-Chi?

Zakiya: I haven't seen it yet? I started it on a late night and I said, Girl, you know, you got to go to bed.

Titi: I'm usually not the first person in line when a Marvel movie comes out. And even with Shang-Chi, I was just like, Oh, you know, it's another marvel thing. But then, you know, I was like, OK, there's nothing for me to watch. Let me just see what it's about because I heard really, really great things. And so the reason why I really like Shang-Chi was because one we had Asian superhero and two, I felt like they kind of disrupted the normal superhero plotline where I really felt like the villain or the bad guy in Shang-Chi was actually grief. So it became like, this really

powerful story for me about losing someone you love, the grief, and how it manifests in different people, and then how you conquer grief and just like the battles that people can be fighting internally. And so I just thought it was phenomenal.

Zakiya: I'm trying to get all the love out. I don't want to have any grief. I mean, I know I'm going to have it, and I try to pour out all that love where I can and make it weird, you know, like, I love you so much. Are you uncomfortable? I love you even more. You know All right. You're the queen of TikTok and Instagram and Twitter. Really? I think you're on all of those, right?

Titi: I'm on all of those. I don't know if I'm the queen of it.

Zakiya: Well, you feel like the queen of it to me. I want to know your favorite meme.

Titi: OK, Tik Tok is one of the happiest places on Earth for me, and one of the sounds that I truly am always going to scroll through. So on TikTok You can click on a sound and you can see all the videos that were made to that sound. And it's the one that goes, Oh no, oh no.

Zakiya: Yes,.

Titi: Oh no. Oh, no, no, no. And there's so many wild things happening, and I always end up crying, laughing. Oh, it's amazing. That's my favorite. What about you? What's your favorite meme?

Zakiya: I think I'm on the sound bandwagon with you. And there's one where somebody is like, No, immediately. No, it's like, it's like working all day. And it's like all these things, like paying your bills and people are going through and looking at things and like, No, I'm not going to do that. No. Immediately, immediately. And I'm saying immediately, no to a lot of things, don't bring your chaos over here immediately no. But really, we are. That just means you remember you made that meme of me when I was retelling the story and I lay flat on the floor?

Titi: light as a feather, stiff as a board.

Zakiya: Yes, light as a feather stiff as a board.

Titi: That is definitely one of my favorite self-made memes of all time. Maybe I'll post it.

Zakiya: Yes. If you or your friends have ever made memes of each other, we want to see him tag us. What's your favorite podcasts? Aside from this one, I hope you're enjoying this one.

Titi: I love Dope Labs. It's my absolute favorite podcast. My favorite podcast is a podcast that's hosted by a friend of ours. Her name is Ivy Le, Le with one E. And she has a podcast called Fear of Going Outside. Ivy is a special woman in that I don't know if I know someone funnier than Ivy. She has such good comedic timing. She is not afraid of embarrassing herself. And so the whole premise for fear of going outside is that Ivy is not an outdoorsy person. And so over the course of a season, she goes camping, and so she's getting all of the gear. She's preparing herself,

and it is very funny you have to listen to fear of going outside. Hosted by Ivy Le with one E, and you can also follow her on Twitter and Instagram @ivylewithonee and follow Fogopodcast.

Zakiya: I think my podcast pick and I've talked about this one before. OK, now listen from Netflix. I really enjoy their podcast. It's all about what's happening, what's going on and their take on it. And I love it. They also just got a TV show.

Titi: Yes. Yes. And those are the level ups that we love to see.

Zakiya: Yes

Titi: You love to see it. They are so fun to listen to and now will be so fun to watch.

Zakiya: All right. So we've gone through all of our other favorite things, but I know you have a favorite science thing. I want to know your favorite moment in your field.

Titi: The engineering thing that I felt like was fascinating is something that should be, I know, is very interesting to my friend because there is a lab group at the University of Rochester and they have collaborators at Delft University of Technology in the Netherlands, and they are 3D printing biofilms.

Zakiya: What?

Titi: Yes, they are 3D printing biofilms.

Zakiya: What I did not know about that. Now, you know, I'm all about the biofilm. So biofilms are these communities of bacteria. Sometimes you can have multiple species of bacteria. Sometimes you know, people study just one species. But the thing to know is biofilms are particularly resistant to different disinfectants and antibiotics because they create this matrix, this extracellular matrix. So outside the cell, a matrix of sugars, proteins, external DNA, dead cells that are still trapped in there. So imagine something this like a conglomerate, and they have all these proteins that are sometimes on the surface of cells. Some of them come from what we call lye cells are cells that have burst, and so they protect the cells that are living in there. You can imagine if you have bacteria trying to get rid of, your antibiotic can't really penetrate down in there and kill the bacteria. So you're saying there are 3D printing biofilms now?

Titi: Yes, they're 3D printing. E. coli biofilms. And so what they're hoping to do with this is that it can help with understanding the behavior of bacterial biofilms and help with the development of new engineered living materials using synthetic biology and materials science approaches.

Zakiya: Yes, that makes sense to me. Biofilms sometimes take a long time to accumulate and sometimes the conditions we use in the lab, they're not conducive for creating biofilm. So if I can just print them out over and over again and then I can study them, you can't really figure out how to combat or defeat something unless you can reproduce that same thing over and over, you know. this is a really great advancement.

Titi: And it's really cool because they might be able to use these biofilms for other applications as well. I think I read that they said that they can use it for protective coatings against pathogens on medical devices, for bio remediation. Whatever that means.

Zakiya: They're using it to study those things. That's really cool.

Titi: All right, so what has been your favorite science moment in your field?

Zakiya: Have you heard of CRISPR?

Titi: Yeah.

So that's clustered regularly interspaced short palindromic repeats. These are DNA sequences, and basically CRISPR technology is leveraging the ability of enzymes to basically hone in on specific sequences of DNA and then do gene editing in that specific area. CRISPR technology is amazing. We've seen a lot of advances even a Nobel Prize recently. But a lot of this stuff when it comes to human application, we have been seeing, you know, in vitro or ex vivo so alive in living cells, but maybe outside of the body. But recently, in 2021, we saw in vivo. So in the body, in the cell, in the organism, CRISPR gene editing. So they are using CRISPR to actually modify genes in the human body, and they use it to target genes involved in inherited blindness. And so they saw improved vision in two people, and they also used it to limit the production of this like protein in the liver. That's toxic.

Titi: Oh my gosh.

Zakiya: I'm like, This is escalating.

Titi: Sounds like Star Trek stuff.

Zakiya: And I love it. Yes.

Titi: Go to the sick bay. OK.

Zakiya: Go to the sick bay. They will treat you.

Titi: They treat you there, and they're just going beep beep beep beep over your body and you'll be all right. That is so cool.

Zakiya: And if you check out our show notes that DopeLabspodcast.com, we are going to link to these articles so you can read more about this. This is a last episode of 2021, so we'll be different when you hear from us. Next time it'll be 2022.

Titi: New Year New US.

Zakiya: Same us, probably.

Titi: It'll probably be that same old us.

Emory Price: Dope Labs is a Spotify original production from Mega Ohm Media Group. Producers are Jenny Radelet Mast and Lydia Smith of Wave Runner Studios. Editing and sound designed by Rob Smierciak. Mixing by Hannis Brown. Original music composed and produced by Taka Yasuzawa and Alex Sugiura. From Spotify our executive producer is Gina Delvac and creative producers are Barron Farmer and Candace Manriquez Wrenn. Special thanks to Shirley Ramos, Yasmeeen Afifi, Kimu Elolia, Teal Kratky and Brian Marquis. Executive producers from MegaOhm media group are my internet besties, Titi Shodiya and Zakiya Whatley.

Titi: Bronchus, I like that word.

Zakiya: There might not be right. I don't know, because that is very interesting stuff.

Titi: My friend said it, so it's right.

Zakiya: Bronchasaurus Bronchasaures Rex.