Getting Curious with Jonathan Van Ness & Dr. Tina Lasisi

JVN [00:00:00] Welcome to Getting Curious. I'm Jonathan Van Ness and every week I sit down for a gorgeous conversation with a brilliant expert to learn all about something that makes me curious. This holiday break, we're celebrating beauty from all angles: science, history, self-care, and beyond. Last week, I answered your beauty questions. And today we're re-releasing an episode where biological anthropologist Dr. Tina Lasisi is answering mine. Now, here's the thing – this episode was one of the most eye-opening and one of my low-key favorites from the year. Dr. Lasisi is, like, a literal icon and genius, and I learned so much I can't even stand it, which is why I'm so excited that we're re-releasing it. Take a listen and stay tuned for one more stunning re-release next week. Without further ado, here's my conversation with Dr. Tina Lasisi, where I ask her: Hair variation. What's that story?

Welcome to Getting Curious, this is Jonathan Van Ness. This is going to be such a good episode. I can't even stand it. I'm gonna dive right in and introduce our guest. We have Dr. Tina Lasisi, who is a postdoctoral researcher in biological anthropology. Her interests include the evolution of human variation in pigmentation and scalp hair, as well as science communication. Your, like, scholar resumé makes me want to take—my stuff is on a music stand in a sound studio right now—I want to take it. I want to flip it. It's bringing out my, like, Indiana primal man rage when they see, like, their team win, I'm, like, "Yeah! Woo! Woo!" Except for it's about gorgeous biological anthropology and your scholarship versus, like, a hideous heteronormative sport. So first of all, welcome. Thank you for taking your time.

TINA LASISI [00:01:43] Thank you! I'm so excited to talk to you about this because, like, *you're* a hair expert, that's just a fact. I'm speaking to a hair colleague, and I'm just so excited to talk to you about this and, like, ask you questions about your observations because I feel like we're basically two people who work on the same thing but, like, from different angles. You're applied and you have all of this knowledge from all the people's heads you've seen. And I have all this theory and books and data!

JVN [00:02:08] I mean, and as long as we're, your hair, just, this texture, everything about it, just oh my, so fucking pretty. I mean, the crop, your cute face. I'm trying to do this cute thing where I don't compliment everybody, but when it's this good, I am just going to stick to my roots as a hairstylist who is a hairstylist first, so I can't help it. I have too many questions and I can already tell from our pre-production that we're gonna have too much fun.

TINA LASISI [00:02:30] I know!

JVN [00:02:31] So I'm not going to get sidetracked, I'm saying, "No!" to distraction. What is biological anthropology? Just to get us on the same note.

TINA LASISI [00:02:39] Yes. So anthropology is the study of humans, and there's basically different flavors of anthropology. There is cultural anthropology, which a lot of people know. There is archeology, which a lot of people don't know is part of anthropology. Then there's linguistic anthropology, and then there's me, which is biological anthropology, which would be anything that lets you understand what it means to be human from a biological perspective.

JVN [00:03:05] Okay, my mind just got blown in seven ways. So the people that, like, go to Pompeii and are, like, dusting stuff, like, not for fossils, but, like, in ruins, that's an archeologist, right?

TINA LASISI [00:03:15] That is an archeologist. But you just touched on a sensitive little fact there because there's classical archeologists. And so they're their own little clique sometimes, and they don't want to be part of this. There's a lot of overlapping Venn diagrams is what's happening.

JVN [00:03:29] So biological anthropology is understanding what it means to be human in history, ever. Right?

TINA LASISI [00:03:39] Not even in just history. It can include history, but just, like, in general, it can even be the present. So there's people who do biocultural anthropology and they look at people today, and I actually look mostly at modern people.

JVN [00:03:50] Ah! Oh my god, okay!

TINA LASISI [00:03:52] It's everything, it's everything, like, we're a little bit like that, it's, like, it's still a little bit of a colonial urge where it's, like, "Oh, this, that's ours, that's ours." All of it is anthropology.

JVN [00:04:00] Fuck that! I get it. But you're fierce. But then in your gorgeous, like, scholarship resume, you have expertise in scalp hair.

TINA LASISI [00:04:10] Yes. There are different kinds of people who work on hair, right? I'm actually pretty rare as a biological anthropologist, like, here aren't a lot of biological anthropologists, I'd say very few, who work on hair. And I might be the only one who works on hair in terms of measuring how curly it is and that kind of stuff, but a lot of other people who work on it are, like, dermatology, cosmetology.

JVN [00:04:28] I am obviously a hairdresser.

TINA LASISI [00:04:30] Exactly.

JVN [00:04:31] So before we jump into anything, I need to know something. Is our hair texture determined by the shape of our follicles? Because I learned about that in hair school. Cause

it's, like, you know, the circle and then, like, oblong oval and then, like, the really stretched one? Is that fake or it's true?

TINA LASISI [00:04:49] Get ready to throw away everything you ever believed in, because that is a myth. [JVN SCREAMS] I know, I know! They were out here lying to you!

JVN [00:04:56] It was in my textbooks! It was in my textbooks!

TINA LASISI [00:05:00] That is not true. But the thing that you're referring to isn't even the follicle, that's the cross-sectional shape. So if you take a hair shaft and you slice it and you look at its cross-section, it can have different shapes. And so some people have noticed, like, sometimes it's round, sometimes it's, like, flat. And this actually goes back to when anthropology was doing hair stuff and they were doing a little bit of the racisms with the hair stuff. And so what they liked to do is basically say, "OK, you have these different races, they have different hair." And I'm, like, "That, we can get with." Different people have different hair. But what they kept on doing is comparing West Africans, North Europeans, and East Asians and sometimes Native Americans. And what they seemed to notice in West Africans and a lot of African-descended people, when they looked at their hair, is that it was pretty flat and they had very curly hair. So they basically said, "Well, obviously it means that round cross-sections make straight hair and flat cross-sections make curly hair." However, if you actually start measuring, like, within those populations and in populations that have ancestry from multiple groups, you don't see that anymore. And I've published about that. And there's even people before me who said, like, "Hey, something doesn't seem right. It doesn't seem to be the case that, you know, the flatter the cross-section is, the curlier the hair is." So this is an example of having different traits co-occurring in different people and then assuming that they always go together, but they don't.

JVN [00:06:27] So basically, that's fake and that beauty school textbook that I read… it just goes back to, like, that NBC thing instead of, "The more you know," "Everything has always been racist." It's, it happens in so many episodes when I never… but, you know, Black History Month gotta keep, keep, you know…

TINA LASISI [00:06:46] Exactly!

JVN [00:06:47] We are, we are going, that's what's happening. So interest! Also, I swear to God, those fuckers told me that it was the follicle, not even the cross-section. But you know what, as a scientist, you're going to like this story. In that same textbook, they literally said that you could take on some water through osmosis as, like, a human, but then they literally said that we needed to cross it out because that had since been debunked. But I remember reading that being, like, in 1842 or something, like, "I don't think we could, like, absorb water into our skin like that," like, totally, it felt weird. And then they literally had us redact it ourselves.

TINA LASISI [00:07:18] Get your money back, get your money back on that textbook.

JVN [00:07:20] I want my money back. I want my money back! So what is hair specifically, like, human scalp hair? Like, is it really, it's all of our dead cells, right, now? Now that's right, right? Or is that also some medical myth?

TINA LASISI [00:07:34] Oh my God, look at the worry in your face. No, I'm not gonna take that away from you, baby. It is not alive. You're safe there. So it is a protein filament.

JVN [00:07:43] Keratin?

TINA LASISI [00:07:44] Keratin! Yes, that is correct. It's keratin and it extrudes from your hair follicles. So it's kind of like your nails in the sense that, like, there's a place where, like, the hair shaft gets made, that's in your hair follicle, in a hair bulb, and then basically you have more and more cells that get made. And as more cells get me, the hair gets pushed out and up, and that's how hair grows. And the hair that's all the way out, it's basically dried out. Those keratin cells are dried out. They're, they're dead, they're not alive, which is also, I'm sure you've talked to people all the time, like, you can't, like, feed your hair things because it's not alive, but you can do things to it, but you're not going to make it healthy because it's not alive, in that sense.

JVN [00:08:28] Right, I explain it, like, it's, you can't make it alive, but there is, like, molecules and things that can make it, like, feel better.

TINA LASISI [00:08:35] Exactly.

JVN [00:08:36] And, like, less, like, plasticating that outside of the hair versus, like, getting a little more in the cuticle.

TINA LASISI [00:08:41] Exactly.

JVN [00:08:42] The cuticle and the cortex is real, right?!

TINA LASISI [00:08:44] It's real, it's real, it's real. You're safe there, you're safe there.

JVN [00:08:48 But it's keratin and it extrudes, it gets pushed out and up. And so then, if it's not the cross-section of our hair, why is it… yeah.

TINA LASISI [00:09:00] Great question. So we, we don't know, is the honest answer. We do not know. And this is the funny thing, right? So: "Does cross-section correlate with how curly hair is?" So to answer that question, what do you need to do? You need to be able to measure the cross-section and you need to be able to measure curliness. But until the seventies, there wasn't a method to quantitatively measure how curly something is, because if you think about it, like, you know, we talk about it, but, like, what's the actual measure? What are we

measuring? So it wasn't until the seventies that I came across, like, you know, the first paper that, that tried to do that and came up with the method, and it was super hard to actually apply. So my Ph.D. was about basically making an improved method that would make everybody's life easier to easily measure curvature, because if you're able to measure curvature, then you could actually ask a question, but if you don't, all you're doing is, like, subjectively saying, "OK, this person's hair is curly. This person's hair is, like, wavy. This person's hair is sort of in-between." Like, that's not scientific, like, you need to measure stuff.

JVN [00:10:01] Fuck. Yes. Okay. Makes me think something about, like, moisture because I feel like when you moisturize hair, like, it instantly gets curlier, even if it's straight, like, it gets a little more textured when it's, like, but that's for a different, that's, like, when we're gonna apply our sciences, it's–

TINA LASISI [00:10:16] No, no, no! We can literally even go into that, right? Because that's super interesting. And this is why I'm excited to talk about my methods with you because I feel like you're going to have noticed things. So when it comes to, like, how curly hair is, one of the things you need to do is, like, operationalize how you're, defining that. So, like, we're saying something is curly. What does it mean to measure that and be really specific?

JVN [00:10:34] When I talk to clients, I'll be like, it's either two fingers or it's, like, one finger or it's, like, a pencil. Or I'll straighten out a bobby pin. I'll use, like, curling irons. Like, "Does it look like this one?" "Or is it, like, is it fat like this one?" "Or is it really, like, teeny tiny like this one?" But that's not—, I'm realizing hearing myself say it that that was a big lack of, like, any sort of…

TINA LASISI [00:10:54] But you're doing so much better than a lot of scientists, like, because what you're doing is you're operationalizing it. You're saying, "OK, I'm not saying that there's a universal rule, but I'm saying for our purposes so that we understand each other. I'm going to say this is what this means, and that's what that means." If you imagine a circle, if you imagine a curl right, you could fit a circle to it, or imagine a circle that fits that curve. And what you can say is, "OK, we're defining curvature as the size of the circle that fits that curve." But hairs curl in three dimensions, right? And we're talking about two-dimensional things. So the guy in the seventies, his name is Daniel Hardy, he said, "OK, let's flatten the hair between two glass slides and then we're going to measure it." And basically, what I did, during my Phd, is say, "OK, what if instead we cut the hairs into super super small pieces so that it only curves in one direction? And then we're going to say that how much it curves in that tiny fragment? That's the curvature." And so that makes us think about: "Does hair curve the same way in a tiny fragment as it does in a full length lock of hair?"

And the answer is no, because I know a lot of people also have anecdotally told me, "Oh, my hair is kind of, like, you know, wavy or curly when it's long. But when I cut it, my, my curls and waves were gone," right. And I saw that in some of my samples as well, where it's, like, that person kind of had, like, wavy hair, but when you cut it, that hair was straight. And so what we

have there is physics. And that's, like, me slightly almost going out of my lane. But, you know, there's a physics of how rods work. So if you can think of hair as like a rod, the way that physics is going to affect it in terms of, like, you know, its weight, and all of these things that are going on that affect that shape. Moisture gets into play there as well because that makes a fiber maybe curve in certain ways or, or certain cells get smaller or bigger. And so that's going to affect it. And that's separate than, you know, the intrinsic curvature that I'm trying to measure.

JVN [00:12:42] Which is, like, the naturally occurring just, like, didn't do shit to it, it just is the way the hair comes out.

TINA LASISI [00:12:45] Exactly, exactly.

JVN [00:12:48] I feel like with clients and myself like, you know, my hair is, like, a little curlier on the edges. And then as you work your way into the interior, my hair is, like, more wavy. So people definitely have, like, like, all curly hair, people are always like, "Oh, like this part behaves, like, this part doesn't." I feel like all curly haired people, like, know there's, like, multiple textures in their hair.

TINA LASISI [00:13:07] Mm hmm. Absolutely. And like, there's two different dimensions of it, right? So one of the things that you're talking about—and, like, I've seen your hair, you know, looking cute in all kinds of ways—um is, like, the ends of it. They're a little curly hair. And so this is something that I'm, like, going to start doing research into. So, like, you know, how, like, Pixar and Disney, like, you know, they animate things, so, like, one of the things that they do and they want to start doing better is understanding how to simulate hair. And so one of the things they do is physics-based simulations where they're, like, "OK, if we understand these parameters of hair, this is what's going to happen." So one of the things you can look at is, "OK, if you have a fiber, is the end of it going to be able to curl more because there's less weight hanging on it?" So if you think of it that way, like, your hair fiber, the top of your hair has the entire weight of the rest of your hair pulling it down. But the bottom of your hair doesn't, right. So does that change its shape? And then if you think about how thick or thin a hair is, so you know, when people talk about fine and coarse? I always explain to people, like, fine and course is the individual hair fiber, like, some people have really, really tiny hair fibers or really thick ones. If you have a really thick hair fiber, unless it has a lot of intrinsic curvature, it's gonna to be hard for it to randomly start bending, right? And so you expect a thicker hair fiber, if it's straight, to stay straight. But if you have a thin hair fiber, it's very easy for it to change its shape, right? So those are some of the many factors that are going on in, in all of this hair texture.

JVN [00:14:28] And I always feel like I have to explain to people, like, your hair per square inch or, like, your density, like, how much of your hair is on your head, too. Because that changes things a lot. Because my hair is, like, naturally curly if I didn't touch it at all, and at any length, like, short, long, it's always curly.

TINA LASISI [00:14:43] That's so interesting!

JVN [00:14:45] My hair has never air dried straight. Like, even when I was, like, short and I had, like, cis-het boy cuts growing up. I always have had, like, curly hair.

TINA LASISI [00:14:53] That's been the most interesting thing for me as well, because a lot of people tell me, like, "My hair changed from when I was young, when I went through puberty." I'm sure you've had clients probably say, like, you know, when they've gone through chemo, like, or menopause.

JVN [00:15:04] Yes, yes! Or pregnancy. Pregnancy's a big one. So what did you find when you took, because there's this whole, like, we hear about the 1A, we hear about the 1B, the 2A, the 2B, the 2C, the 3A, the... So we have these graphs, we have these charts. Do we do like? I like it because it gives us a common language. Do we like it, though?

TINA LASISI [00:15:21] Exactly, look, that's the one. So this is the thing that I wish people would understand. Sometimes we have a lot of faith in scientists and that faith in them is unearned, because when it comes to, like, hair stuff, especially when, like, you know, people try to understand the genetics of hair. When I go through some of these papers, the language that they use isn't, like, you know, this super cool classification system we have, right? It's straight, wavy, curly, and then if they're feeling "diverse," it's frizzy. But, like, I think you agree also, like nobody's hair is necessarily inherently frizzy, you have different levels of tightness of curl, like, frizzy is individual hair fibers are–

JVN [00:15:56] Just needs some product. Maybe she blow dried it and went through a wind machine or whatever.

TINA LASISI [00:15:59] Exactly, they're all separated from each other. We like it when curly hair clumps, and so that's, like, that's not a hair type. That is a hair condition, situation. You know, it's a situation. But, like, imagine like the scientists are using, like, less objective terminology on average than we're using in, like, you know, the natural hair movement. So, like, what I loved about this is, like, you know, being a Black woman myself who, like, went natural, what, like, when I was, like, 16, ooh, how long ago was that? But anyway, the last 20 years, right, like, that all came up. It really allowed me to find other people like myself, because, when you talk about Black people's hair historically, it's been done with, like, very dehumanizing language, like, "Oh, it's a 'frizzled mop,' it's 'wooly,'" which is completely dehumanizing. And just, like, all this negative terminology, but also homogenized as all of us. Like, my texture is and you would understand if I say, like, a 3C, maybe a 4A in some places. See, you know what I'm saying, right?

And then there is going to be gorgeous, gorgeous girls with, like, a 4C texture. And then we know, "OK, like, that's what we're working with, that is what we're like looking at." And

there's all of these different styles that you might want to try on my hair, but not on 4C hair or that you might want to try on 4C hair and not my hair. And that allows us to, you know, have all of this beautiful diversity instead of saying, "Oh, it's all Afro hair." You know, that's like, so dismissive, and the language that we have literally the words only allow us to talk about the variation in the range of, like, Europeans. Because when we talk about "straight," "wavy," "curly," a lot of times people are talking about, you know, what we see across European populations, maybe Asian populations. So sometimes we say "Eurasian," but there is a whole range of hair that is tightly curled, but you want to describe those variations. And so for that purpose, being able to have language is so helpful. It makes you feel seen. It makes you feel like, you know, we get to be our individual, beautiful selves.

JVN [00:17:49] Yes. When I look at people who have hair curlier than mine, I think, "Oh, your hair is curly." But then when I feel like it's, like, that tighter, like, you know, more like, I think the size of my pinky and I call that coily. And then if it's, like, tighter, then I say kinky. But that's cute, right?

TINA LASISI [00:18:03] Absolutely. Right? When we talk about like, wavy, curly, coily, kinky, it makes you feel, like, "Okay, there's a different type," like, it's qualitatively different, but it's a continuum of how tight the curl is. And that's exactly what you're saying. Like, you're saying, what is it: the size of my pinky, or is it the size of whatever, whatever, it's as a continuum. But the, the words we're using, they imply that it's a fundamentally different type. It's important to have the ability to discuss something that is, like, the same, but just to a different extent, right? And that's what it allows you to do.

JVN [00:18:35] Oh my gosh, yes! Okay, this is, like, a sidebar them I swear to God I'm going to get back on my segment, but I just I'm having so much fun talking, and we've already talked about it, it's like, a lot of these terms were racialized in a way of like, you know, "These people have this hair, those people have that hair." And so when I was in hair school, I started in December of 2005, I finished in, like, October '06. I went to school in Minneapolis. And I remember you didn't get to do any textured hair, which, it was like, called "textured hair," but everybody knows it's, like, that's when you start to get to do Black peoples' hair, like, that's what "textured hair" meant. And that's what people thought of it as. So, like, it went, like, Intro, Intro II, Alpha I, Alpha II, Beta I, Beta II, Gamma, Salon Life. That was, like, the evolution of your hair school. So you didn't get to go into textured hair until Beta I. And so inevitably, because it was a majority white place as Minneapolis, like, you would see on Beta I Day, like, just a bunch of girls from, like, Montclair, Minnesota, like, "Ah!!"

TINA LASISI [00:19:31] Fear in their eyes, like, actual fear! Yes.

JVN [00:19:32] Yes, yes. But we had this teacher named Heather, who was this, like, fierce Black woman. And the first thing she said to us when I was really, really excited because like all, like, all my girlfriends in high school were Black, all I wanted to know was like, "How do I

do a relaxer?" "How do I do a flat wrap?" "How do I do my girlfriends' hair?" So I was just like, so ready to like my notepad. I just, like, wanted to succeed.

TINA LASISI [00:19:50] Been ready, let's go!

JVN [00:19:51] But Heather was, like, to everyone that was, like, fearful. She was, like, "Hair is hair is hair, like, it's all hair. There's just a different amount of heat or a different process that we have to go through to achieve the look."

TINA LASISI [00:20:02] Exactly.

JVN [00:20:03] "But all of hair is hair. And, and you guys need to get it out of your head right now that this is, you know, a Beta thing. You can't, you gotta to be doing it for five months or four months. Hair is hair is hair, and you also know how to do all the types of hair." So that was one thing about her that I've always appreciated, and it's really set me up for success, like, in my career, because I do know how to do everyone's hair, unless that's it's, like, a barbering situation. And then I won't really clipper your hair regardless because it's, like, a whole different thing, and I am only going to fuck it up no matter what your texture's like. So, I mean, I can do it every once in a while. But, like, my success rate of a clipper cut's, like, a quarter and I like to have a higher success rate.

TINA LASISI [00:20:38] Right, but, let me be with you, like, I DIY clipper my own hair. And let me, look, don't look at the back because you thought it looked cute from the front, but don't look from the back. It's not! It's not a good situation!

JVN [00:20:48] We should find you someone to help you with the back. It's been a lot in COVID and everything, but there are people who can, like, help you. I know that they can. One thing that I've thought about lately is how much racism there is in the hair care industry. I mean, I've thought about it over the last few years because it's, like, I feel like a lot of students, a lot of hairdressers didn't have a Heather in their education. They didn't have anyone. And one thing, like, for me that I've always really been hard on myself is, like, it's, like, the edges. Because I can blow out anybody's hair into any texture. Now I know how to do it. Like, I know how to break out my blue foam. I know how to, like, fingerwave an edge. I know how to put my little strip on it. I know how to, like, finish an edge. [CROSSTALK] Now I do. But it took me a while to get there. But a lot of people don't, and they wouldn't know how to style a wave. They wouldn't know how to style natural texture. They wouldn't be able to do either. They would just be overwhelmed. But you almost can't even separate where we are now from where we've come, because this has been an issue, like, in the beauty industry for such a long time.

TINA LASISI [00:21:38] Absolutely. The way that I look at hair, right, is from a very biological perspective of, like, "Oh, I'm interested in it from this, you know, almost, like, abstract way." It's, like, you know, you're not doing anything to it, like, I'm actually trying to understand hair,

and it's, like, basic state when you're not doing anything. Now what you're doing as a hairdresser is applied. And it's, it's, like, a combination of science and art. And so that's also where a lot of the issues lie with because in order to be a great hairdresser for a range of textures, I can't just give you, like, you know, a textbook, right? Like, there is an artistic component where you're, like, looking at an individual's hair and you have to make decisions about, "OK, this is what's going to look good on that person," based on what I know about, yes, the biology of that hair, how it's going to respond to materials, but also, like, you believing that that kind of hair could be beautiful. Like, that's also what's going on there, like, I mean, I think we should be, we should be honest because, like, some of the responses I've had, like, I used to live in Europe, from European hairdressers to my hair is that exact horror that you describe where they are overwhelmed.

And that fear is also kind of like they're, like, "I can't help you, because your hair is fundamentally not capable of being beautiful." Right? And so that, like, horrible negativity that actually requires, you know, even more than the scientific knowledge, which absolutely we should put forward. But I think, you know, people like you, people like Heather, who are like, "OK, guys like, you know, let's go into this as artists, right? And let me show you what's possible, like, what you can do with this medium," really, that's what it is. "You have this beautiful material that, that is different, right? Like, you can do different things with it, and I want you to learn that the four or five hairstyles that you know how to do on straight hair. Okay, that's cool. That's cute. That can look fierce. But there's all this other stuff that you can do. You have a whole world of possibilities that opens up." And that's what people who know how to do textured hair learn how to do, like, you know, you're doing different hairstyles, you're not doing the same process that you'd do on straight hair because we have different looks that we want to achieve. And it's more about learning those looks and, you know, applying those looks than it is even about understanding fundamentally the difference between these hair types. Although, of course, that's always good.

JVN [00:23:54] Yes. Ah! OK, I am, I'm obsessed with you, I can't help it. OK, so how has scalp hair or has scalp hair evolved, like, through history?

TINA LASISI [00:24:05] Yes. Now let me blow your mind some more. We talk about how humans are hairless, right? Like, we're, like, "Oh, like, that's what makes us really weird animals." There's other naked mammals, like naked mole rats, for one.

JVN [00:24:16] Dolphins!

TINA LASISI [00:24:17] Exactly. All the naked cetaceans, like, whatever that ain't special.

JVN [00:24:20] What cetaceans?

TINA LASISI [00:24:21] Oh, sorry. That's like, all of, like, you know, dolphins, whales, all of their little gang.

JVN [00:24:25] Yes!

TINA LASISI [00:24:26] But what's weird about us is who else is naked but with scalp hair? No one. That's weird.

JVN [00:24:33] No one.

TINA LASISI [00:24:33] That's weird. Yeah, you got to commit. We couldn't commit. We said okay, naked, but give me scalp hair.

JVN [00:24:38] Because we were cold?

TINA LASISI [00:24:40] No, it's not. It's not because, it's not about cold, right. We evolved in equatorial Africa, like, our species evolved in equatorial Africa. In fact, the reason we lost our body hair has to do with thermoregulation and specifically trying to keep our body temperature down. So if you have a very hairy body, evaporating sweat is a little hard. So what humans did is they traded in a bunch of body hair follicles for sweat glands so that we can sweat a lot from our bodies. And that's great because that's the only way we have to cool down. But at the same time, we kept scalp hair. And so that's what a lot of my work has been on has been asking that question. Because when you look in the animal kingdom and you see one weirdo who had one weird solution that nobody else had, you should look into that, because there's something interesting going on there. And one of the things that you know with humans is we're bipedal. True. And so what's the thing that's closest to the sun: your head. And what do you have in your head? You have your brain. And your brain is really sensitive to heat, and it also generates a lot of heat. So imagine we're already in a super hot environment. There's a lot of sun, we're naked, but now the most sensitive part, the most heat-sensitive part of our body is closest to the sun. We should probably cover it. I mean, people who are hairless, whether by choice or because "bzzp!" they know they need to wear a hat in the sun, right? [JVN GASPS] I mean, if you have a big, beautiful afro that can help protect your head from the sun much better than straight hair. And so, like, a lot of experiments I did during my Ph.D. was actually demonstrating that, because no one had done that before.

JVN [00:26:14] Seeing how, like, when the Sun shines on a big old, gorgeous afro it, like, protects your shoulders probably probably takes all sorts of stuff, like, gives you, like, major stuff. So it's to protect us from the fucking sun.

TINA LASISI [00:26:25] Exactly! From that solar radiation, because that shit will bake you! I don't know if you live somewhere that's hot. If, if you do, like, you know, I don't know, Arizona, Nevada, Sun, all of that stuff, like, you could probably fry an egg!

JVN [00:26:36] Dr. Tina! I am really, really, really, really. You did not disappoint on that, that my mind is-! So, okay. So then what happened?

TINA LASISI [00:26:46] So we traded it in our body hair, and somehow we kept, like, scalp hair. And so what's really interesting is that we don't know yet, like, the timing of these things. Did we first, like, lose our body hair and then, like, grow back out our scalp hair? Or, you know, did it all happen at once? And also, like, when did it become curly? Because this is the second mind blowing thing.

JVN [00:27:02] No, no. It used to be straight? It used to be straight? All of our hair? What? What?

TINA LASISI [00:27:07] Even better than that. What animals do you know with curly hair?

JVN [00:27:11] Poodles!

TINA LASISI [00:27:12] I have a poodle, actually I have a poodle, how perfect is that? [LAUGHS] But their hair isn't curly, it's crimped. Sheep have crimped hair, and so it's that bilateral. I mean, you know, you've crimped hair before, right? It's that bi-lateral wave. Mm-Hmm. It's fundamentally different than human curls and especially like, you know, tightly curled hair, like, you know, a lot of Black people have.

JVN [00:27:31] It's like a circle.

TINA LASISI [00:27:31] Exactly! It's a helix. It's all of these helices that are kind of like, you know, chaotically like, you know, tangling with each other and like, you know, next to each other in ways that is very different from, like, the way that crimped things work. So if you have something that's crimped, you have all these fibers perfectly aligning. That's why if you look, like, at a poodle or a sheep, you can see the pattern, right? And with curly hair, like, unless you clump together to separate the clumps, you don't have it lay together. And that's very important because if you have all of these hairs being, like, separated in this way that, you know, could result in this big afro. You have a bunch of airspace and you have a maximum amount of volume, and it's the volume that keeps you protected because it maximizes the distance between the top of your hair and the top of your scalp. But if you have straight hair, then it's all packed right next to your scalp. And basically, you can't lose any heat because you are completely insulated by a bunch of straight hair. And so tightly curled hair like humans have—I've never seen it in any other species. I'm still waiting for someone to prove me wrong. I've never seen that kind of curly hair in another animal—is unique to humans.

JVN [00:28:34] Has there ever been, like, some fossil that had, like the hair still in it that was just like some fucking crazy ass texture that, like, just doesn't exist? Ooh, ooh, ooh, ooh, ooh, no. What about beaded hair? Have you ever seen, like, that naturally beaded hair? My friend has that. And that was also in my textbook back in Aveda.

TINA LASISI [00:28:51] No! Tell me more.

JVN [00:28:53] It almost looks like it could have been crimped with one of those teeny teeny crimped irons. And it's almost like these little balls on the hair shaft.

TINA LASISI [00:29:01] Naturally?

JVN [00:29:02] Yes.

TINA LASISI [00:29:03] I've never seen that.

JVN [00:29:04] It was giving me, like, nutritional deficiency or something. I'm going to Google it, just to show you. "Beaded hair," but then it's going to show me hair with beads in it!

TINA LASISI [00:29:13] Yeah, exactly. That's what I'm afraid it will do.

JVN [00:29:15] I'm going to do "beaded hair condition." "Beaded hair condition." That's what I'll say. So you've never seen that?

TINA LASISI [00:29:23] So I haven't, and this is the thing that I again, as somebody who only, like, sees the hair samples, like, they get sent in…

JVN [00:29:29] "Monilethrix is a condition that affects hair growth. It's most characteristic feature is that individual strands of hair have a beaded appearance, like the beads of a necklace." Yes, it looks just like this. It looks just the fuck like this. That's exactly what my friend's looked like. [CROSSTALK] You see those little balls. And it looks like crimping.

TINA LASISI [00:29:49] OK, so what you're tapping into is there's these so-called Mendelian conditions, genetic conditions where it's considered a pathology or some kind of, like, disease that does something to hair. Basically stuff like that is not considered to be "normal" range variation, so we have a bunch of variation among humans where it's, like, "Oh, we're all healthy, we're fine. There's just different ways of being human." And some types of variation are considered to be medical and, like, to be conditions, right?

JVN [00:30:19] That was giving me condition, because I was, like, "Oh," like, it was giving me, like, vitamin deficiency because the hair was very, like, fragile and it felt like if you looked at it wrong, it was going to crack off.

TINA LASISI [00:30:28] Yeah. What is it, brittle, hair, like, syndrome or something? There's a bunch of different hair types and syndromes like that where you know, you can have some genetic mutation that affects how your hair is made, right? And those are very rare. And sometimes they tend to co-occur with, like, other things in your body where you can definitely

say, “Look, it's not just a cosmetic thing, like, you have, like, a health condition and it's manifesting in your hair as well.” But that's not something that occurs, you know, on a population level. Like, you, you won't find a population where everyone has that kind of hair. So that is kind of like, you know, some of the medical work that's being done and then from the “normal range” variation that anthropologists really work on, you only have like, you know, this curly, coily kind of hair. That's the type of variation that we have. When you look at other animals, like, that doesn’t really exist because most mammals have straight hair. Most mammals have straight hair. Our closest living relatives chimpanzees have straight hair. Gorillas, you know, all of them apes, monkeys, straight hair, straight hair, straight hair. Because that's, like, the default for mammals.

And there's some of them, like poodles and sheep that have this crimped hair. But then, you know, we're the only ones who evolved this. And the thing is, we're never going to find a fossil from that old with hair. Because we’re talking about, we would want to be finding something from around two million to one and a half million years ago. Like, you're not going to find hair, you barely find bones at that point because they disappear. But if you understand the genetics of hair, which we're getting better at, like, you know, every day, if you know what genes are playing a role in different hair textures, what you can do is look at, you know, as many different people around the world as you can and understand, “How does the genetic variation relating to hair differ around the world?” And what you can do is basically say, “OK, this is what the last common ancestor of all humans had in terms of hair.” And then you can even do one better because now there's a type of, you know, research that we can do on ancient DNA because we can find DNA from Neanderthals and they were alive, you know, tens of thousands of years ago, hundreds of thousands of years ago. And so we can get a peek at what they had. So these humans that left Africa way before most of our ancestors left Africa, did they have scalp hair? Did they have curly hair? We don't know. But if we learn what genes were responsible for hair variation, we could ask, “OK, did Neanderthals have curly scalp hair?” We would be able to find that out in a way that doesn't involve fossils.

JVN [00:33:03] OK. OK, OK. OK, obsessed, ok, ah! So we talked a little bit about the racialized traits that kind of went along with, like, the way that we define hair. And we also talked a little bit about, like, beauty, the 1A to the 4C. I think in the beauty industry, one thing that I’ve learned from Biossance that's really interesting is that, like, when it comes to clean beauty or the idea of clean beauty and the ingredients that are in there really actually being clean, on average, twenty five percent is marketed to BIPOC women. So there's, there's lots of different ways that the racializing has negatively impacted folks in the beauty world. Another place where we hear about it is medicine. So but, but I'm going to not, look at me becoming a journalist.

TINA LASISI [00:33:51] Love.

JVN [00:33:52] How does the racializing of hair impact, like, say, medicine or, like, forensics?

TINA LASISI [00:33:58] Do I got you! OK, well, and now we're going to do a little screen sharing. So one thing that I love to share with people to shock them as a factoid is that there is this dermatological condition, quote unquote, called "wooly hair syndrome." We're already not liking it. This is already going to a bad place. But the really problematic thing about wooly hair syndrome is that the condition is just having tightly curled hair in a non-Black race. So imagine saying that. Imagine saying that having Black hair is a condition.

JVN [00:34:34] What the fuck!!

TINA LASISI [00:34:35] And now you're going to be shocked because the gag is this is just curly hair, bro. Like, imagine going to the doctor and saying, like, "There's something wrong with my child because this is what their hair looks like." There's nothing wrong with these kids' hair!

JVN [00:34:48] When really you should be celebrating because that's, like, some pretty ass hair. But you know what's really interesting. [CROSSTALK] I had this, I had this family of Sephardic Jewish people from North Africa, but they looked like, they didn't, I mean, they looked like, it looked like they were my cousin, like, but their hair texture was like yours. Like, the tightest, tightest, kinkiest, gorgeous, like, to the point, like, when you would look, you be like, "Oh, who's this nice, like, white lady waiting for me?" But then she sits on my chair and I'm like, "Your hair texture." She's like, "Yeah, I'm Tunisian, like, my family's, like, Tunisian."

TINA LASISI [00:35:26] Makes sense! Yep!

JVN [00:35:29] Wow. Yes. So this is in 2017? This is still what we…?

TINA LASISI [00:35:32] Exactly! Look at what I'm saying! because people want to say, like, "Oh, racism is old," I'm, like, "No, this is in 2017!" A dermatological article that writes, "in the non-Black races, wooly hair is certainly an uncommon anomaly of the hair structure."

JVN [00:35:48] So we really just have, like, some hardcore *hardcore* of racism in dermatology, yes.

TINA LASISI [00:35:54] Umm…. yeah.

JVN [00:35:35] Because this is just pretty curly hair, curly hair.

TINA LASISI [00:35:57] It's pretty curly hair. But, you know, what they'll say is like, "Oh, like, there's psychological consequences to these kids having this kind of hair," and I'm, like–

JVN [00:36:04] Because their mommy is too silly billy to put some detangler and to know how to, like, put in some curly cream?

TINA LASISI [00:36:10] That's what I'm saying, you know? Imagine saying that, like, that is, like, just such a great example of racism because, like, we're doing a lot of work here, right? We're saying that there are certain kinds of hair that are "okay" to have if you are a certain race, like, you are "racially OK." And then there are certain kinds of hair that we're saying are "not proper" if this is your race. That doesn't even make biological sense. This doesn't even make sense, that doesn't make sense. And what we're also saying, which is very disturbing, is that "there are certain kinds of hair they're so undesirable that it's a disease if, if it's in people who 'should' have straight hair." And the flip side of that is also really disturbing. I've seen a lot of articles where they describe certain kinds of, like, deficiencies, where you have consequences in the hair and people who are of African ancestry get silky hair. And that was super, like, upsetting to read, right? Because it's, like, you know this person has a nutritional deficiency, like, it's literally damaging them, but you're, like, "Oh, but the positive side is that their hair is silky now," and they mean "silky" by like, "like European hair." And I'm like, "That's how messed up we are in the head," that we're, like, somebody who actually has a disease and the consequences that their hair looks European. We're like, "Oh, but that's, like, a good thing." But somebody who has nothing wrong with them, except that they have curly hair, we're saying, like, "Well, clearly you must be suffering because who would want to have that kind of hair?"

Because you mentioned forensics. A few years ago, the FBI came out with, like, a report basically saying, like, "LOL, remember how we were doing, all of this, like, hair forensic stuff. Well, whoopsies. We did a little bit of racism with that and a lot of false convictions with that." In forensics, like, hair is trace evidence and there are people who are experts in recognizing different types of fibers. And what they say is that they can tell apart different people based on their hair. And when they get hair, they're, like, "Okay, what is the 'race' or the 'racial origin' of the person who's hair it is, blah, blah blah?" And so that's, like, one of the worst examples of it because I mean, you know, you've looked at hair. And, like, you could pick two hairs from each of our heads that look completely different and they're both our hairs. So how could you possibly be so certain about this is whose hair that is, you don't even get to pick? You don't know where on their body that hair came from. And so a lot of people were sent away because of bad forensic applications of hair science. And so that's, like, what I like to show people is the same in dermatology.

JVN [00:38:33] So what we're looking at is, is two charts, and the one on the left is from…

TINA LASISI [00:38:38] Dermatology, a dermatology article. So it basically describes the hair of, like, different races. And they basically have hairs from a bunch of different people and they categorize their hair, their race, and the shape of their follicle. And so what they do is, like, you see that people who have frizzy slash Black hair, their 'biological race' is Black, and the shape of their follicle is curved and the shape of their cross-section is flat. And then with white people, they have a "range of different hair colors and hair textures" because they're the only ones who are "diverse." And then they have one person who is classed as "Oriental," which, already super problematic.

JVN [00:39:15] So that's from 1988.

TINA LASISI [00:39:16] Yep.

JVN [00:39:17] So when I was one.

TINA LASISI [00:39:20] And then from the chart on the right is from 2002, from a forensic textbook, and it's a section on the forensic and microscopic examination of human hair, and it basically is teaching forensic scientists, "How can you tell what race this hair comes from?" "This is what Caucasian hair looks like." "This is what Negroid hair looks like." "And this is what Mongoloid hair looks like." Yep, that's the terms that we're using, in 2002. I mean, the terms already are bad, but the fact that they say that these are, you know, "fundamental differences," that's super messed up because like in my research, I've seen that there's so much variation! Like, you have people who identify as Caucasian and their hair cross-section is an oval, like, it can be round. It can be flat, it can be any number of things. So this is super dangerous because when we say "We're one hundred percent sure that, you know, this is what this race looks like and that's what that race looks like," then we just end up saying a bunch of silly things.

JVN [00:40:14] And also, in these graphs, they're saying that, like, white hair is typically an oval and Black hair is typically flat, I think that makes it worse for Black people, because then you can have, like, all these fucking…

TINA LASISI [00:40:27] Exactly, see, you're onto it, right! Where does the oval end and where does the flat begin? Yep. Because you can say a lot of things are, like, "Oh, this is definitely," but there's just so many issues there. Like, we, we hate this. This is honestly just not good science. It is hard to do forensics, right. It is really hard to, like, know, like, extract so much information out of so little evidence. But that doesn't justify using bad racist categories to say, "Oh, we're sure about something when we can't be sure about it."

JVN [00:40:58] Especially when it's as subjective as shape, like, it's—the DNA, if you can really, like, if you can really guarantee that that is the hair from the person or whatever. Reading DNA or reading something from inside the hair, if the test is OK, like, I feel like I can get behind that more than, like, looking at something as a shape, and saying, like, yeah, because what is around and what is oval and what is what is it flat, it's like, yeah! And in your research, you have seen all of those shapes exist in all different races. So it's just, it's all junk, like, that whole thing is junk.

TINA LASISI [00:41:31] Yes! And actually, like, I'm opening, poor, poor Jonathan. He's being subjected to all my Powerpoints. I have another Powerpoint–

JVN [00:41:37] You're not subjecting me. I am so obsessed. I want more Powerpoints. Oh, is it this one down here with the shapes?

TINA LASISI [00:41:43] OK, so here we're looking at cross-sections. So this is what a cross-section looks like when you embed a hair and you cut it and you look at its shape. OK, so here, the ones on the left, they're, like, very flat right? But they're from a person who identified as white. And the ones on the right, they're from a person who identified as Black. But we have a round hair, we have an oval hair, we have a flat hair. We have all kinds of cross-sectional shapes. So clearly, it's a terrible idea to try and guess someone's race from their cross-section.

JVN [00:42:14] No! Guys, we are not doing the most, well, we're doing the most while doing the least.

TINA LASISI [00:42:21] Exactly!

JVN [00:42:22] It's a lot. OK, so great. Great for forensics. So basically hair samples? Not great.

TINA LASISI [00:42:29] Not great for shape.

JVN [00:42:32] Not great for shape. And then back to how we *should* talk about hair, and what your work is and what your, what your PhD is on, how should we be talking about hair and how should we be accurately measuring it moving forward? So, like, what's your recommended method for measuring hair texture?

TINA LASISI [00:42:58] Yeah. So what I like to tell people is there's different levels that you can be thinking about hair at, right? Sometimes when we're talking about texture, we're really talking about, like, "I look at your hair, like, your whole head of hair and I'm, like, describing it with a word or a couple of words." And then you can look at an individual hair fiber, which is what I do. And on the level of an individual hair fiber, you can look at how curved that hair fiber is and you can look at its cross-sectional shape, which is what I do. But you can even go beyond that, right? There's people who do, like, microstructures of hair. So, like, if you look at that cross section or even not a cross section, you can look at the cuticle with, like, microscopes and look at their shape and, like, all of the information. And you can even do, like, chemical tests on hair, there's all of these ways. So what I like to do is say, "OK, I'm talking about hair on the level of an individual hair fiber. How can we talk about, like, your individual hair fibers and their shape?" And then like, there's that curvature part that I talk about, which is, like, going from straight to very, very small, tight curl. That's what I call curvature, and that's what people call curvature. So it's how curved the hair fiber is.

JVN [00:43:59] Oh God, I'm not ready. I'm not ready. I'm not ready. Go back to that! So curvature, honey. [CROSSTALK] OK, so basically, that would be like if you pulled one hair

strand out of your hair and then you cut it into, like, inch cross-sections and you look at, like, "How much does that like in subsection of your hair curve?"

TINA LASISI [00:44:20] Exactly.

JVN [00:44:21] And that would just be, like, on a dry—, but that also needs to be, like, on, like, washed hair, that's washed, maybe conditioned, and then, like, no product on it.

TINA LASISI [00:44:30] You'd be very proud because step number one is cutting the hair into small pieces. And then we have a lot in the Petri dish and we throw it into a bunch of, like, tubes and we wash it like we wash it. We put it through a whole process and it's exactly what you're saying. You know, it's really annoying for me is I'm, like, "Yeah, you definitely have to wash the hair," because I'm, like, If I, like, I don't know, brush my hair out. It's texture is going to change, but if I wash, it is going to go back to its original texture. So I'm like, You have to wash your hair. Some of the scientific papers, they didn't really do that. So I was like, "I don't know if I can trust your results." You know?

JVN [00:45:01] Oh because they would just, like, let people come in with their hair however it was?

TINA LASISI [00:45:05] Who knows how they got their hair samples? We don't ask questions. Some of these papers are very old and we're just, like, "Oh, we're not going to talk about it."

JVN [00:45:12] Oh, shit. OK, so that's OK. So that's how you measure. And that's, and then so what's, like, your, like, what's your way of measuring it for the curvature? Like is it, like, straight, hella curved, like, a minor curve, how do you call it?

TINA LASISI [00:45:28] We get a number. So basically, I wrote a computer program that takes an image of hair and it, like, turns into black and white. And basically it fits a circle and it tells you, "Okay, this is the size of the circle that fits the curve of your hair." So it's all automated. It's all, like, you know, just computer image analysis. And then we get a number and that number is related to the radius of the circle that fits that hair curl. So it's a specific number that you get, which is really nice because you can basically see, like, if we categorize hair. And we measure it, so, like, here, I'm showing you, like, a chart where on the y axis you have the curvature and that's the number, that's the specific number of how curved someone's hair is. And the higher the curvature is, the more curved it is, the lower it is, close to zero, it's straight. And if we talk about categories, categories miss a lot of variation. So everything here is very curly hair, but we have all of this range of variation. And so that's what my methods do, like, they measure that variation instead of just classifying it into categories.

JVN [00:46:35] Because you really have, like, infinite sizes of curly hair.

TINA LASISI [00:46:38] Exactly, exactly. Exactly.

JVN [00:46:41] I'm so obsessed with this. I can't stand it. So, "median curvature versus self-reported hair." Ooh, is that people, like, not knowing that they had curly hair?

TINA LASISI [00:46:50] So, yeah, you caught on to that. So basically, what I'm showing you is, if we categorize people's hair into "straight," "wavy," "curly," and "very curly," we can use objective cutoffs, and these are cut-offs that L'Oreal suggested. And basically, you see that even if you do it objectively, it's totally biased against very curly hair because it basically says, "Oh, see all this variation we see in very curly hair, it's not important, whatever, it's all, just very curly." And it's even worse when people self-report. So, like, some people who objectively don't have super duper curly hair would describe their hair as very curly. And some people who say that their hair is wavy, I mean, maybe it's kind of curly, like, what's even with the limit? It's very subjective. And so if you compare that to their objective hair curl, it's messy. It's super messy. The only people who seem to agree is straight-haired people. They're, like, "We, we, we agree on what straight hair means." Which is great. That's great. We can all agree on what straight hair is.

JVN [00:47:48] Got it. That reminds me kind of of Jessica Guilbeaux from season three of Queer Eye her, like, her, she's, like, "I'm a strong Black lesbian woman," that was, like, I love her so much. But when I did her hair and cut it all off because it had just been, like, relaxed for 10 years. She literally thought that her hair was straight and I was, like, "Queen."

TINA LASISI [00:48:06] Baby.

JVN [00:48:07] "My eyes are not deceiving me, and this is something like curly, curly hair," like, it is not. And now you look at her and she's, like, a fucking literal model with, like, the curliest, most beautiful afro of all time, it's the prettiest hair of all time. So that is interesting that sometimes we don't even know what our hair texture is, which is, that's its whole own thing in and of itself. And obviously, it goes without saying that it disproportionately affects Black women, it goes without saying. But that even idea that straight hair is more desirable, or smooth hair is more desirable, like, people called me "Brillo pad," like, having my hair curly. Like, Yeah, just this. Yeah, just this idea that, like, "Oh, you should have, like, smooth, straight hair. It completely dismisses the beauty and how cool and interesting and diverse curly hair is, and it is so much fun. And actually, as an applied hair scientist myself, as you said earlier, it's actually way more fun. Because that straight ass hair? It doesn't hold a curl. It's very fragile. You can't even do that much stuff with that and you spend all this time setting it. And then it's fucking straight again in, like, three seconds. Yeah. Oh, oh, oh! I have another question. I have another science question. Is it true that when I am applying heat to hair and stuff, I'm messing with the hair's hydrogen bonds. And when it's, like, addressing the, like, color or the relaxer, that's the sulfur bonds. And are there in fact, like, those two types of bonds or is that a whole fake thing, too?

TINA LASISI [00:48:38] No, so that is correct. There are hydrogen bonds and disulfide bonds, and so the hydrogen bonds are weaker and basically with heat and water, they get broken. And then, you know, there you get bonded again and then you have disulfide bonds that are, like, stronger bonds and more permanent. But now we're getting, like, literally on the edge of my expertise because we're getting into chemistry and your girl is not a chemist, but those two things are absolutely true. And so when we perm hair, we break disulfide bonds and then we set the hair to straight or curly whatever we're perming it to, and it forms again with, like, weaker hydrogen bonds. And so because of that perming process affecting the disulfide bonds, some people have said, like, "Oh, maybe that's the difference. That's what makes hair curly or straight. It's like how many disulfide bonds they have." And to my knowledge, nobody's been able to demonstrate that, like, nobody's been able to demonstrate, like, differences in amount of some chemical compound in hair of different textures. So we don't know how that affects things. So it's just a lot of, "Eh, we don't know!"

JVN [00:50:42] OK, so I did this consultation with this really sweet girl today who won, like, this JVN Hair consultation. She was, like, "My hair used to be curly hair, but now it's, like, kind of straight." And I was, like, "Is it longer than it used to be? Did you used to have more layers?" I was, like, "Did you used to do product?" And she was like, "No same person may be cutting my hair for 15 years. The same shape and just, you see curly hair now." So I was, like, "Did you have a baby?" She was like, "No." I was, like, "OK, did you have, like, a high fever? Like, did you have some medical thing happen?" And she was, like, "No, not that I remember." And I was like, "Well, okay, I don't know what the fuck to tell you, then." [CROSSTALK] But isn't it true that but it's true that your hair texture is like, determined if it's not hair follicle shape, it's selling your insides. It's not, like, you get a relaxer.

TINA LASISI [00:51:27] It is biological. It's not environmental. Yeah. Exactly, exactly. Yeah, you're a hundred percent.

JVN [00:51:31] And if never, and if, if it did have a change on the outside, and that just so happened to correlate to an environmental thing. It was just a coincidence. Not because you, like, got highlights and then your hair came in blond. Okay, so that's true.

TINA LASISI [00:51:42] Exactly. Yeah. So I mean, what you're, what you're touching on is your hair morphology or hair shape is determined genetically. We don't know what genes, necessarily, but we're pretty confident that it's not an environmental factor. So it's not like you said, like, "Yeah, you know, you're going to go somewhere and your hair is going to change fundamentally in its structure," no. We don't know exactly what's going on, but we do know that there's multiple things that affect gene expression. And so one of the big things is hormones. So that's a cool hair thing in general, right? So, like, one thing I think is mind blowing about, like, just biology in general is we have the same DNA in every cell in our body, pretty much, right? Like, you know, except germs, germline cells, we have the same DNA and every cell in our body, but our cells are different. So what is really interesting is, like, how does your scalp hair know, "OK, we have to be scalp hair." How do your eyebrows know, "We're

eyebrows and not scalp hair? So we need to, like, tone it down." How does your beautiful beautiful beard know, "We need to be a beard here," right? And you didn't always have it because we just saw your cute little kid pictures. At some point, you hit puberty, and then there were hormonal changes. And these kinds of hormonal changes can change gene expression. And that's part of why sometimes you can have changes in your body, even though your DNA didn't change, it's just how your body is using your DNA that changed. And so that's what can happen for people like, you know, you hit, especially hair color. Hair color can change like even just your general pigmentation can change with puberty, with pregnancy…

JVN [00:53:14] Yeah, cause, like, my husband, his hair was really, really, really, really, really red.

TINA LASISI [00:53:18] [GASP] Really?! I love red hair!

JVN [00:58:21] And the older he gets, the more—Me too. But it's getting, like, more brown-ish.

TINA LASISI [00:53:23] Interesting, interesting.

JVN [00:53:26] So what the fuck is that about?

TINA LASISI [00:53:29] I mean, I can tell you where hair color comes from. I do a little bit of hair color, too. So there's two types of melanins.

JVN [00:53:34 Oh, I know this! Pheomelanin and eumelanin.

TINA LASISI [00:53:36] Yes, how did you know?

JVN [00:53:38] Because I'm a hairdresser, I learned about it from the same book as this faulty follicle science!

TINA LASISI [00:53:42] At least they got that one right. Oh my god. I usually have to explain that to people. I'm truly, like, in the presence of my peers. [LAUGHS] I love that, I love that.

JVN [00:53:51] We also call it granular and diffuse because bleach breaks up the granular pigment, like, easier than it does the diffused, because there's, like, more of the melanin to break up. So it's, like, that's why it's so hard to get red out of your hair because it's, like, a smaller pigment and it's, easier for the bleach to target, like black and brown pigment because it's like bigger. But the more, like, yellow and red is smaller, so it's, like, harder for the bleach to blow it up and make it appear lighter, and it just takes longer.

TINA LASISI [00:54:18] And see, now I'm learning from you because, like, I didn't know that because like, I don't, I'm not putting bleach on anything! Yeah, there's all of these different

shades because basically you have melanin cells, melanocytes, and they can produce both types of melanin. But basically, what happens is there's this biochemical process where if you, like, just switch a couple of things, you can either make pheomelanin or make eumelanin. And so depending on a lot of factors, like, you can just kind of mess with that and then stuff goes, like, "Woop! OK, we're going to be eumelanin. Woop! We're going to be pheomelanin." And what's really exciting about redheads is that all of us mainly have eumelanin, like, the range of variation that we see in hair color from blond to black. That's just how much eumelanin you have in your hair. The only exceptions are gorgeous, gorgeous redheads. I love redheads. I did, like, my Masters' paper on redheads, so I've got a bunch of hair from, like, people who had red hair and, like, we did chemical analysis to see how much pheomelanin and eumelanin they had in the hair. And there's so much variation because some people they have, like, a ton of pheomelanin and a ton of melanin. Some people have no eumelanin, just pheomelanin. And then there's like all of these different amounts in between.

JVN [00:55:25] Whereas every other hair color, it's all eumelanin. Redheads have, like, pheo and eu and it's all over the place.

TINA LASISI [00:55:30] Yes, it's all over the place and it's amazing. And, you know, throughout your age, like, that's going to change. One thing that happens to people in general is like, you know, when you're born, you're honestly as light as you're going to be. And then when you hit puberty, your entire body is, like, kind of dark. But in some people, it's especially evident in their hair. So, like, when you hit puberty, like, your hair, is your hair a little bit darker than it was when you were a kid?

JVN [00:55:51] Oh, no, yeah, it was, it's kind of been similar, I don't know, I am just, like, that consistent bitch.

TINA LASISI [00:55:57] You're so consistent, we love that! We love it.

JVN [00:55:59] It was probably a little bit darker. I think it's gotten lighter. But I think that can be also because I'm starting to go gray.

TINA LASISI [00:56:06] Ooh, oh.

JVN [00:56:07] I have another question on that note, though, and my beard hairs. OK. I noticed, like, maybe 10 years ago, a bunch of them were getting way redder than they used to be, like, they were all black. Then they start getting red. Now, all the ones that were turning red are gray. Do you see, like, all these gray hairs?

TINA LASISI [00:56:24] Ooh, yes! We love a little salt and pepper. We love it. That's interesting!

JVN [00:56:30] But I think that the red ones, you know, the red ones are now gray. So I was wondering if that was my body, like, being, like, "OK, bitch we're not making so much melanin anymore. Like, we spent it." And then it was, like, "Oh, we're red," and now they're gray.

TINA LASISI [00:56:40] So you know what? Science doesn't have answers for this yet. So I thank you for giving me this data. So one thing that we do know is as we get older, the melanin cells in our skin, they're, like, "OK, you know, we're out here, we're going to keep making melanin," but the hair ones, they're, like "I'm out! Peace," like, it is over.

JVN [00:57:00] "You put me through it, doing all this shit to me!"

TINA LASISI [00:57:03] Exactly. "I'm, I'm out." And there's basically a reservoir of stem cells at, like, you know, your hair follicles. Hair follicles are fascinating, they're, like, these mini organs, because hair, like, you know, grows in, in stages and it's cyclical, right, cause it goes through to the anagen phase, and it grows, and rests, and it falls out. But it's the rebirth of a whole new hair follicle, basically. So you have a bunch of, like, stem cells at the bottom of, like, your hair follicles, and there's also, like, it that's also interacting with your melanin cells there. So there's some stuff going on there, and people are studying it, in terms of whether those cells get depleted and maybe the melanin cells that are associated with your hair follicles somehow get, you know, depleted and tired out sooner than other types of melanin cells. But what's really interesting about what you said is, like, is it possible that they just decided, "OK, we're gonna, woop! We're going to do more pheomelanin?" And then it was like, "Ooh, that was like a dead end. And now we're just not doing anything." I don't know about that, but a lot of, I've heard a lot of bearded people say, like, you know, they have red in their beard when they don't have red on their head, and that I am just fascinated by that.

JVN [00:58:08] That, that happened to me, too. And I really don't have red strands of hair in my head hair, but on my face, there's, like, a lot of red ones. But the red ones for years now have been going gray, like, they only stay red for, like, a little bit and then they just go white. And I've also pulled out those areas where literally the tips are fire engine red and the root is gray.

TINA LASISI [00:58:30] No, really?

JVN [00:58:32] Like, I've actually pulled them out before where it was, like, the change was, like, on the hair itself.

TINA LASISI [00:58:36] Please, please send me a picture.

JVN [00:58:38] If you want that, I will get that for you because it happens, happens, like, with kind of regularity.

TINA LASISI [00:48:43] Yes, absolutely. Also, kind of side note. Have you ever seen those, like, iPhone attachments that are, like, microscope attachments, like, they basically like, let you turn your phone into a microscope?

JVN [00:58:54] No. Is it, like, an app?

TINA LASISI [00:58:56] No, it's not an app. Like, it's basically, like, you add it, like, on top of your phone and you basically just put it on the back. I feel like you would love that. You could look at all the buttons, all the hairs, and then you just take, like, a blown up photo of it and, like, put it on the socials or send it to me. You would love that!

JVN [00:59:11] I have one more hair science question, actually, I have, like, 87 more, and you're going to have to just say, you know, like you will have to come back for more episodes because

TINA LASISI [00:59:18] I would love that.

JVN [00:59:19] Literally, I did. I didn't get through a third. Is it true that hair that has pigment still has, like, five to seven layers of cuticle on average? But then once it goes gray, there's, like, 20 to, like, 50, and that's why it's so much harder to, like, cover gray hair because it has all the layers of cuticle?

TINA LASISI [00:59:35] OK. Look, Jonathan, please, can you join my lab? I would like you to be a scientist with me because we would do so much great hair science. I've never, I've never heard that before, but we talk about it all the time. We're, like, "Does losing hair color change hair texture?" And, you know, me and my advisor have been talking about this for years.

JVN [00:59:52] Yes! And I can tell you, objectively, it one hundred percent does, because I mean, I've, I've had certain clients I've done for 15 years. I mean, I have. And some people who I don't do their hair any more, but I did it for, like, 12, 13 years and I'm still like friends with them. They're still in my life. But absolutely, I have clients who, their hair was brown. It started going gray. We decided to let it come out and it definitely changes the texture of your hair. It just makes it a little more coarse, a little bit, like, drier to the touch. And it will also hold curl better, because when it was, like, pigmented and, like, smoother, it was, like, more tenacious. So the cuticle was more packed down. And so when you look curly, it didn't, like, hold as good. But then when it got a little bit more texture to it and started to go gray, like there was more roughage on that cuticle. So you could, like, curl it and it would, like, hold better.

TINA LASISI [01:00:43] I'm just, like, fascinated by this hypothesis because I haven't heard it before. Like, what we were thinking is, like, "OK, we expect the opposite," right? So imagine you have your hair shaft and it has pigment in it, like, that's taking up some space. So if you're not making pigment anymore, it should be thinner. But from what we're hearing from

everyone is that their hair is coarser and coarser means thicker. Right. And does, does that seem to align with what you're seeing in the hair?

JVN [01:01:05] Yes! Yes!

TINA LASISI [01:01:07] I never heard about, like, you know, having more cuticle layers. That's, like, fascinating.

JVN [01:01:11] But that was in the same book that said that fuckin round everything.

TINA LASISI [01:01:15] That book is like a box of chocolates, and some of them taste like rotten egg.

JVN [01:01:18] It was true, because some of it was right, but now was, like, so not!

TINA LASISI [01:01:22] That's going to be our project.

JVN [01:01:24] Which, that does seem like the nature of science, even though, like, there was so much racism and, like, misogyny and homophobia and transphobia and then the racism going back to the racism and then a few more times.

TINA LASISI [01:01:31] Always.

JVN [01:01:33] And we've actually seen that play out in real time in COVID. It's, like, I think that, you know, the history aside or the like. Now, I want to hope that, I think I believe that we are trying to do the best with the information that we have now. But then as you learn more, you have to, like, change.

TINA LASISI [01:01:50] You have to update your opinion. Exactly. Exactly. What I like to tell people about science is, like, there's, there's nothing, like, fundamentally special about a scientist. It's just somebody who's, like, "Hey, you know what I'm going to do, I'm just going to observe things, and I'm going to try to make sense of it." And the thing is that fundamentally that can't be purely objective, right? And I say that, I'm, like, the reason I was able to do all this work and the reason that, you know, people are, like, "Oh, wow, why did no one do this before." Because I'm, like, "I'm the only person with my particular set of identities who's had the opportunity to do the science." I'm, like, if there were more, you know, Black women in science, I'm sure we would have made some of these discoveries a lot sooner. And, you know, the thing we need to remember is that we need to think about objectivity in the sense of, "OK, how can we make sense of all of the different perspectives that we have?" Because if we can find an explanation where all of our perspectives can be slotted in and it's, like, "Oh, that's why you were seeing this, and that's why I'm seeing that," then we can be pretty confident that we've found something that we can label as, like, "the truth." But if you're saying, like, "This is what I see and everybody else who disagrees with me is stupid,"

then I'm, like, "You're not doing good science." Like, you know, we need to find things that make sense to all of us based off of observations. And the greatest way to do that is, like, to measure stuff, and to talk to other people, and to be, like, "What do you observe?" Like, Getting Curious-er, hey, there we go, Getting Curious-er about the world around us and like other people's perspectives on the world around us.

JVN [01:03:19] One thing that I feel like I've taken from this episode a lot that sometimes I feel like I take it for granted, or maybe it's just because I've had like my own journey with it or I've just, I said this once to Karamo on his podcast. And I think for me, like, some of my closest friends and best teachers and most influential people in my life have been Black women. And people who I looked up to the most and, like, wanted to emulate and wanted, like, I just looked up to them the most like they were in many cases in my childhood, the people who fostered the creativity, who let me be me, who embraced me, who, like, let me be a part of their world. And I think that's, it's one of the many reasons why I have so much love for Black women in my life because they have just been such a huge part of my life. And that being said, I think that's also part of why I was like, like, I think about the scene in Getting Curious the TV show with Michelle Buteau, and we're watching the commercials, the 80s commercials, like, "Yes, I want that style. I want that one." And it's, like, and that moment is, it's interesting, because that was not scripted. Like, we were just, like, watching stuff together. And it's like, to me, it's part of why I loved it is, it was, like, an interesting conversation and observation about privilege that to someone who has not had to deal with the racism around hair, it's like you just see, like, at least for me. Yet I just see this as, like, cool, fun hair.

TINA LASISI [01:04:38] Not trauma. [LAUGHS]

JVN [01:04:39] Right! And so as to say that I, I, for all sorts of reasons, have naturally and instinctually celebrated Black women's beauty and thought it was really cool and thought it was really beautiful. And, like, like, to the point where as an adult, I've been like, "Wait, I don't, you know, you weren't ready for Beta one? Like, you weren't really, because I've been trying to learn about Bantu knots for, like, five years now." So you weren't trained, OK? Because, you know?. So, so I, I love for us to celebrate what they are taking from this conversation as this that, like, that is one thing on the base period for everyone. We need to understand that, like, diversity and hair, all hair is beautiful. It is beautiful. Period. Three, you have to know that it's beautiful. And I think that's something we all have to just take for me as a host and as a person, like, not taking it for granted because that just is like what my worldview is. But we're not all there yet, and we're all still are getting baked in this, like, misogynistic, like, racist soup out there sometimes. So knowing that we have to celebrate diversity and beauty is the one thing that I'm taking from this. But the other thing that I wanted to ask you is kind of the same question is, like, how can listeners use what your work has been and what your science has been to better understand their own hair?

TINA LASISI [01:05:54] Well. There's probably, like, two aspects that I would love people to take away. And one of them is there's so much variation, there's so much diversity in, you

know, what gets homogenized as “Black hair.” And honestly, that was part of what made me do this in the beginning because I was, like, “Hey, like, there's a difference between my hair and my dad's hair. And, like, you know, my other Black friends’ hair,” like, you know, we have, like, so much variation and you're just kind of dismissing us as, like, having quote unquote “Afro hair.” And I'm, like, “No, look at how cool all of the different ways you could have Afro hair.” Like, you know, that's really what put me in this. I was, like, “We're only talking about, like, you know, white people's hair.” And I'm, like, “Yeah, sure, that's fine. But, like, please, you know, look at all the ways in which we're diverse and beautiful.” So that's one of the things. I'm like, there's so much variation, guys, and I'm like objectively proving that, that's, that's been my bag, that's been my academic bag, looking at all of this variation. And then the second part is our hair is literally unique and incredibly special from an evolutionary perspective. Imagine that the hair type that has been so dehumanized is the hair that no other animal has, like, that is wild to me because I'm like, If there was a trait that only white people had and no other animal had, trust, we would know everything about it.

JVN [01:07:13] I've thought about that like 10 times, but I didn't want to sound like a basic white person. But I was, like, for all of the villainization that I already– because, like, “It's ‘civilized’ to be like this and whatever.” Actually, we were less evolved because we were out getting a sunburn, getting the scalp torched, getting the face torched, aging prematurely, looking like a fucking dried up leather handbag when in reality, this gorgeous hair texture was a literal, not only was it a fashion staple, but it also protected you from all of this premature aging rays and hurting our scalp and our face—

TINA LASISI [01:07:49] And our brain!

JVN [01:07:49] Well, actually Black women's scalp—and faces from the fucking sun. So really actually Darwin and your fugly cousin? You know, can go suck–. Well, I don't even want to say suck a dick like that because you'd be so lucky, you know? You just go back and get a different profession because actually, I thought about it, like, eight times. It's so fierce. It's the coolest.

TINA LASISI [01:08:11] Yes. And we need to have a whole other conversation about, like, Darwin, because he actually had a book on sexual selection where his whole thing was, like, “Actually, you know, guys, Europeans aren't beautiful to everyone. Everyone thinks their own people are beautiful.” It's a whole other episode we need to do, girl. It's a whole other story.

JVN [01:08:27] Like, basically, so he was—

TINA LASISI [01:08:29] I know, shocking!

JVN [01:08:31 So that's cool.

TINA LASISI [01:08:33] He was, like, “Hey, guys, actually, you know how we don't like dark skin? Well, people with dark skin actually think dark skin is pretty and they think white skin is

creepy." But he went around the world where he got testimonies from people all around the world who said, like, "Yeah, like, we think the beauty we have in our people is very beautiful and we think new strangers are not that beautiful." And it just goes to show that, you know, what we consider beautiful is a construct, and it depends on, like, how you view yourself. There is no one who is inherently more beautiful than other people.

JVN [01:09:04] If someone has listened to this podcast and they're, like, "Wait, academia, science, I could—"

TINA LASISI [01:09:12] Yes, you could!

JVN [01:09:13] "I'm, like, so obsessed with everything that Tina is saying and doing. I see myself there, I want to get into, like," what, what guidance do you have for listeners that want to learn more, like, from, like, it's just a little more all the way to, like, "Oh my god, I need a career change because I didn't realize that we could place."

TINA LASISI [01:09:25] First of all, follow me on my socials because I do talk about, like, how to deal with academia, how to get into academia, how to do this kind of science. And just, like, in general, please contact me, ask me questions. I love to answer them.

JVN [01:09:38] So do follow the socials. I know I'm doing that. I'm doing that, so we should all be doing that. And no more free advice there. So then what's next for you and your work?

TINA LASISI [01:09:49] So having recently finished my Ph.D., I'm going to be moving on to doing more postdoctoral work. And so one of the regions of research I'm going into is computer graphics. I want to help our, you know, computer graphics queens out there, you know, we had Brave, but we need to have more curly representation, like, let's see what we can get in there. Let's see what we can get on the next Toy Story. You know what I'm saying? Encanto is looking real good. I want to get into that and find a way to like, represent all of us on screen because that's, like, you know, beautiful and I'm going to keep doing genetic research. So I'm, like, one of the things that's a bonus if you follow me is if I start doing more genetic research where I need participants and you're, like, "I want to know more about my genetic ancestry and my hair. From a scientific perspective," you could maybe participate in some of my research. So that's coming up.

JVN [01:10:39] I want to do that, but I didn't want to do 23andMe in case one of my relatives murdered someone, even though I think my uncle already did it. So we're probably, it won't be me, but I just, I was trying to protect the other people.

TINA LASISI [01:10:49] You know what? I see you. I see you. There's ways around it. And, you know, privacy and safety are number one. So, like, I will always talk about that and tell you how you can avoid that. And then the other thing is that hopefully at some point your girl might be

at some point a professor and then you guys can all come study with me. Wouldn't that be fun? You should come to my lab, when I have one!

JVN [01:11:09] I see it in your future, I see it in your future. I just, I absolutely see it in your future and you are such a, just, genius person. And this scholarship, the way that you approach your scholarship, the way that you are able to articulate such dense, confusing stuff is really amazing. I, we must have, like, we have to have you back for part two because this is only, like, just wet my whistle. I think so, we're following. We're becoming a full professor. We are also helping with computer programming. That's major. Is there anything else? I've had so many thoughts, but I was so too excited to write them down because you made me really excited.

TINA LASISI [01:11:54] Big relatable content.

JVN [01:11:56] Thank you so much for coming on Getting Curious. I love you so much, Tina, that was so much fun. Thank you so much for coming on Getting Curious. You've been listening to Getting Curious with me, Jonathan Van Ness. Our guest this week was Dr. Tina Lasisi. You'll find links to her work in the episode description of whatever you're listening to the show on. Our theme music is "Freak" by Quiñ - thank you so much to her for letting us use it. If you enjoyed our show, honey, please introduce a friend - that's how we keep the lights on around here. Let's get everyone in the podcast, shall we? And please show them how to subscribe. You can follow us on Instagram & Twitter @CuriousWithJVN. Our editor is Andrew Carson. Getting Curious is produced by me, Erica Getto, and Zahra Crim. [SINGS] Let's keep getting curious – I'll see you next week! Yeah~