168: Resiliency Radio with Dr. Jill and Martin Hart, DC Moldy Kids: Moldy Brains

Dr. Jill 0:12
Well, hello, everyone! Welcome to another episode of Dr. Jill Live. We've got a new name, so you might notice now that we're called Resiliency Radio with Dr. Jill. I'm super excited about my guest today. We're going to dive into one of my favorite topics, mold, and especially our brain and mold and how that is affected. So I'm excited to introduce our guest in just a moment.

Dr. Jill 0:34
Also, I want to just mention that if you're out there and you have enjoyed my new book, *Unexpected*—it's now been out for about six months—we've reached best-seller status. And I know a lot of you have commented and left me messages. I really appreciate that. We'd love for you to leave a review on Amazon, Goodreads, or wherever you found this book. And please feel free to share with your friends and family or anyone you think might be impacted. Now, one other thing I want to mention [is that] if you bought the book and didn't know that you get a ton of free stuff, go to ReadUnexpected.com. Just put in your email and you'll get immediate access to a mast cell lecture I did, my coloring journal, which goes right along with the book—I'll actually show you what that looks like here; it's really, really cool—all that for free and an audio recording of a hidden chapter.

Dr. Jill 1:17
Okay, so without further ado, I want to get on to our special guest today and introduce him. Dr. Martin Hart earned a Doctorate degree in Chiropractic from Cleveland University, Kansas City, and has trained and studied in a vast array of disciplines, including acupuncture, kinesiology, natural medicine, positive psychology, methylation, detoxification, and many other fields. Dr. Hart understands the healing journey is a partnership between doctor and patient. He takes a personal approach with each patient and uses the most advanced technologies to help release dysfunctional patterns and restore optimal function of the human body. So welcome, Dr. Hart. Thanks for joining me today.

Martin Hart, DC 1:55
I'm so glad to be here! Thanks for having me.

Dr. Jill 1:57
You're welcome. And again, [it's] our favorite topic. Before we dive into mold, brains, kids, and all the good stuff that we've got to talk about, I would love to hear a little bit about your journey as far as how you got into chiropractic medicine and what that looked like for you.

Martin Hart, DC 2:10
Yes, so very similar, especially working with moldy kids and moldy brains. As a kiddo, I lived in the basement of a house. The basement flooded every time it rained. We didn't really know how big of an issue that was. But what we did know is that I had a lot of issues growing up. I was diagnosed with various learning disabilities, obsessive-compulsive tendencies, and sensory processing disorder. I was sick all the time. My mom would say that I was on antibiotics six, seven, or eight times a year for strep throat.

Martin Hart, DC 2:42
That progressed into more and more obsessive-compulsive tendencies, major anxiety, fatigue, and that sort of stuff. So I was at the doctor a lot, but I was also at the chiropractor a lot. I was getting some acupressure. I was getting adjusted. My mom would give me homeopathy right next to the antibiotics, so I had a weird mix growing up.

Martin Hart, DC 2:59
But what really helped me hone in on making a difference was athletics. I loved playing athletics. For me, it gave me something to focus on with my obsessive-compulsiveness and anxiety. It gave me a focus. It gave me a drive. My dad was big into sports nutrition and working out, so he helped me with that. I started taking supplements, which I noticed as a teenager, maybe a middle schooler. They were like, "Hey, when I take these, other things feel better." So that got me on that track.

Martin Hart, DC 3:28
And I decided to do chiropractic. At first, being in chiropractic school, I didn't like it, because I thought I wanted to do sports medicine. And I was like: "These guys are talking about all sorts of crazy stuff. You know, you can help the human body by

doing this stuff and whatever." And I was like: "No, no, I'm out." So I was trying to transfer to PT school.

Martin Hart, DC 3:50
My wife threw her back out. This is while [I was] still in school. And usually, I could do a little bit of hands-on adjustment work, and she would feel better. It didn't work that time. So at that time, she was running an in-home daycare. So I stayed home with the kids while I was treating her on the table. We couldn't afford to take her to the ER. So I was having to carry her around the house. I was having to help her with everything.

Martin Hart, DC 4:11
Finally, I called one of the mentors who was teaching me kinesiology, some Chinese medicine, and a little bit of herbalism. I went to a class of his and I said, "I'm going to give this 30 days and try it." So I called him. I said: "Hey, look, I know you just met me last weekend. Here's what's happening with my wife... What do I need to do?" He said, "You just need to work these two reflex points to clear the spine of some toxicity and balance it back out with some torque that's on it." I did that. She could walk. And she was like, "This is what you're doing." She's like, "We've got to get rid of the PT stuff." So I dove in with two feet, started learning more herbalism, started learning more homeopathy, functional medicine, and those sorts of things, and haven't looked back since.

Dr. Jill 4:49
Wow, I love how our journeys, our childhoods, and our relationships shaped our practice. My journey is similar because, growing up on a farm—I grew up in Midwestern Illinois—all of those experiences shaped... I had bad allergies and so many antibiotics, like you said. And it's interesting; one thing I love about chiropractors and talking to you and others like you is that I grew up with my primary doctor—basically a chiropractor. That was the main source. We'd still visit a doctor or whatever, but I had a great respect [for chiropractors] and I always wanted to be a chiropractor. And it's funny because he steered me to medicine. He was like: "No, Jill, you actually could be someone who could change the system." And thank goodness that now things are on a level playing field because, back in the day, I think he had experienced a lot of discrimination. You know how that goes.

Martin Hart, DC 5:36
Yes, there was. Yes.

Dr. Jill 5:37
Yes. So I just want to call out, like, I have the deepest respect because that's where I was headed. And like, I feel like there's such a power. And I saw, as a child growing up, that's who helped me get well when I was sick.

Martin Hart, DC 5:50
I love that.

Dr. Jill 5:51
Yes, I love that too. So our topic today is "Moldy Kids: Moldy Brains". And we see how mold really, really does affect the brain. Let's maybe frame this as far as: What kind of people are you seeing, especially children coming in? What are their symptoms? And what leads you to think about mold as a cause?

Martin Hart, DC 6:10
Yes, so we do see a lot of pediatrics. We see families and adults as well. But we see a lot of pediatrics coming in. A lot of times they have... Maybe it's really basic, like asthma. I've got one patient right now; she gets strep throat once a month in school. We tested the school and the school was moldy. It was mold suppressing her immune system. Chronic infections are a biggie. But then it gets worse when it's chronic sinus infections, chronic respiratory infections, and strep throat. Maybe it's progressing into major histamine intolerance, so allergies all the time. The redness, rashes, and nosebleeds are a big one. As it gets to the brain, we might see those PANS/PANDAS cases, right?

Martin Hart, DC 6:50
So we think about strep, and those are maybe Lyme or mycoplasma getting to the brain, creating obsessive-compulsive tendencies, rage, hysteria, trouble sleeping, food intolerances, sensory processing issues at that point, and motor tics. We think of strep infections, and that's true. But what's allowing those to get in there? What's allowing those to cross that blood-brain barrier? A lot of times, mold was suppressing their immune system by ramping up inflammation, which allowed that to happen. So I see that a lot in our pediatric cases. They're throwing more

tantrums than maybe their siblings or their peers, regardless of parenting style. They're more irritable. They've got more food aversions, food intolerances, and a lot of digestive issues. Those are pretty chronic ones I see. And for me, especially in pediatrics, chronic nosebleeds, hands down, I'm looking at mold probably 99% of the time.

Dr. Jill 7:39
Yes, so let me repeat that. It's so important. Chronic nosebleeds—we know medically that there's this Von Willebrand factor that can be affected by the mold. It can literally cause you to not clot as well. I remember years ago, Dr. Shoemaker, who did some of the mold research in the beginning, would talk about how people would come in and just smell the paper that was moldy, and they'd get a nosebleed. Or he'd get papers from a moldy patient or house, like intake papers. So that's very, very real. So these parents are concerned about this.

Dr. Jill 8:12
And the big thing I love that you mentioned is that, sadly, so many public buildings, schools, courthouses, and things are deeply affected by mold. I think that it's way bigger than we think. Sometimes, when you're in an area, you may only know certain school systems. But I know that for me here, I see a lot of systems where the kids are chronically ill in the same schools. How often do you think that's an actual root cause—[the fact that] these kids are in a school that's moldy?

Martin Hart, DC 8:37
Yes, I would say it's probably 80% to 90%, at least in the population I see. Sometimes the school administration is good about testing it, and sometimes I have them sneak in a test and test it. And 85% to 90% of the time I have them test the school, it's coming back with toxic mold. That's usually using the ERMI test, or maybe sometimes an EMMA test. We know it's a straightforward test. "So, yes, the school's moldy." At this point, from my experience with patients, at least my theory with, like, "Oh, kids go to school and they start getting more viruses"—no, that's not because the kids are passing it around. In my experience, it's because those schools are moldy so their immune systems are suppressed.

Dr. Jill 9:17
Yes. So let's talk briefly about: What would you tell a parent? Maybe parents are listening and are like: "Oh my gosh, I think maybe my kids since they've been in this

grade, in this classroom, and at this school, there's been bigger behavioral" or "illness issues." You mentioned ERMI and EMA; I'm really familiar with those. For those who are listening, tell us a little bit about what you would tell a patient or parent to do for testing.

Martin Hart, DC 9:39
Yes. You can test the environment. That's an ERMI, which stands for environmental relative moldy index. It's an EPA-designed test. That's a dust test. You can go and dust in the area to see: What's the environment like? There's other testing you can do—mycotoxins and things. But then on the patient for sure, we would do a urine mycotoxin test. I want to see if that patient is holding urine toxins. We might adjust that test depending on their detox pathways—maybe a glutathione challenge first, a sauna, or exercise first. But we want to see: Is that little guy or a little gal holding toxins in their system? And a urine [test] is a great way to do it with kids. You can do a urine test. Some of these companies now do diaper catches. I've had some of my toddlers do urine mycotoxin tests via a diaper catch and see what's coming out. It's really sad to see some of these young students—kindergarten, first, or second grade—be loaded with mycotoxins when you measure them.

Dr. Jill 10:33
Yes. I love that you mentioned that, because that's really what you want to do. And I often do the EMMA or ERMI and then actually look at the patient and say, "Does this match?" Now, it's okay if it doesn't match because there's very frequently an order of operations. I'd love to know if you've seen this. For example, say you're in a moldy home, you get out and you start excreting and detoxifying. I find that patients tend to excrete the aflatoxins and ochratoxins and the things from Penicillium and Aspergillus first, and then it might be six months later that they excrete the trichothecenes, the really nasty toxins. Do you see that as well?

Martin Hart, DC 11:06
Yes. It's pretty similar. I say the Aspergillus mycotoxins are coming out early. Later ones might be like those black molds, trichothecenes, or even some of the citrinins; those are going to come out later. So it's not uncommon to see them shift a bit. It's not alarming when that happens because it's usually like you're saying, it's that body going: "Okay, I can do this first, then this second."

Dr. Jill 11:26
And even family members in the same environment—you know, one kid's in school and the other kids are at home—can definitely have a variety of excretions. It doesn't sway me from the fact that they all have some exposure. So I love that we're talking about this, because I think it can be confusing. I've had a lot of patients say, "Well, this doesn't match exactly." And sometimes it does match exactly. And then you're like, "Okay, bingo!" But it doesn't always, because there are so many varieties. And then, when you're doing urinary mycotoxins, you're really measuring excretion, which is what we want. So it's not always bad. Do you retest them in four to six months or do you just watch them?—because sometimes you can see those levels go up, and that can also be confusing for patients.

Martin Hart, DC 12:04
Usually, at this point, I've waited a little longer, like that six-month mark. For some of those, it takes 90 days to have a full excretion effect anyway, but I don't want to freak them out. For a little while, if you're not detoxing and you're in the environment, you might be excreting some, and then we start detoxifying. We pull you out of the environment, like we're saying. You start dumping more. And they're going to be really alarmed—no matter what I'm telling them—that their levels are going up. But if we wait that full six months, you'll get the better effect without alarming everyone so you don't have to go through that scary cycle. But exactly, yes. We'll retest in six months. And we'll do some other tests in between. I'll do pretty frequently the VCS tests—the visual contrast screen—which is an online visual test that helps us monitor neurotoxins. And we can see that one goes down really nicely as mycotoxin and neurotoxin loads go down.

Dr. Jill 12:54
Thank you for explaining that, because I think that's so key for patients to understand. I do the exact same thing, so I really, really appreciate that you explained that. So say we have a kiddo [in] seventh or eighth grade or third or fourth grade—you name an age—and you find out that they likely have mycotoxins. You might find they have frequent strep. Let's just talk through a case. How would you approach that?—because you've got all these tools. You've got the chiropractic; you've got the herbs. What's your approach to a kiddo like that who's having symptoms—maybe aggression, rage—and we have known mold and maybe even known infections?

Martin Hart, DC 13:27
Yes. So initially, what I'm doing is what we call triage. We're going to do two steps at the same time. Step one is: Try to modulate the environment. Can I get them out of the environment? Can I improve the environment at all? And then step two, almost happening at the same time: Can I lower inflammation while starting to bind up some of the toxins? So what can I do?—because those behavioral changes are really, most of the time, a sign of neuroinflammation. So those outbreaks, those rages—their brains are being overloaded. It's getting excitotoxic and neurotoxic at that moment so it's creating inflammation.

Martin Hart, DC 14:01
If we can lower that inflammation a bit and calm that fire down while taking away the gasoline, the mold exposure, we can make a big change early. So we're saying, "Okay, what things can we do to modulate inflammation?" Does it look like a low-histamine diet? Does it look like natural or pharmaceutical antihistamines? Does it look like high-dose fish oil, or maybe something like quercetin or resveratrol to stabilize that? And then, at the same time, can we bind up some of those mycotoxins with a gentle binder that keeps them balanced out? We start there and then we start to cycle down—maybe detox, deeper detox cycles, hormone imbalance if they have them.

Dr. Jill 14:39
Yes, let's talk binders and kiddos. I'd love to know what your preference is. You don't have to name specific brands. You can if you want. But what are some of the kinds of substances that you prefer when you're treating kids, let's say under the age of eight?

Martin Hart, DC 14:52
Yes, so in younger pediatric cases like that, humic and fulvic acid in powder form seem to go really well. It's very mild tasting. You can take it with food. It's a good broad-spectrum mycotoxin binder and a good source of minerals. A lot of times, you can mix in a little bit of juice and they don't seem to notice. A good trick with some of these things that are tasteless—because it has a really black, deep color—is to put them in a bottle that you can't see through, and then they hardly look at it. Or make it a joke.

Martin Hart, DC 15:22
My mom really saved me, I think, as a kid because I had so much food aversion that she had me convinced that this green powder I took was Ninja Turtle slime. She had me convinced it was Ninja Turtle slime. I would have my friends take it. They'd come over, [and I'd say], "You've got to get some of this slime!" So make it a game with the kiddos. But humic and fulvic acids in powder form is so gentle. You can go low or high because it's in powdered [form] and you can hardly taste it.

Dr. Jill (pre-recording) 15:48
Hey, everybody. I just stopped by to let you know that my new book, *Unexpected: Finding Resilience through Functional Medicine, Science, and Faith*, is now available for order wherever you purchase books. In this book, I share my own journey of overcoming a life-threatening illness and the tools, tips, tricks, hope, and resilience I found along the way. This book includes practical advice for things like cancer and Crohn's disease and other autoimmune conditions, infections like Lyme or Epstein-Barr, and mold- and biotoxin-related illnesses. What I really hope is that as you read this book, you find transformational wisdom for health and healing. If you want to get your own copy, stop by ReadUnexpected.com. There, you can also collect your free bonuses. So grab your copy today and begin your own transformational journey through functional medicine and finding resilience.

Dr. Jill 16:44
I love that. I couldn't agree more because that fulvic acid just drives the minerals into the cells, so you're kind of getting this nourishing effect. And they rarely cause constipation. I don't know if you've seen that, but it usually doesn't affect the bowels, which can be an issue. So you have this kiddo; you're treating inflammation. Are there any particular herbs or things that you'd go for with brain inflammation? Where would you start with a kiddo who has brain inflammation in the inflammatory pathways?

Martin Hart, DC 17:10
Yes. So depending on their challenges, I really love quercetin. And I use a lot of skullcap. Skullcap, in herbalism, we call it a nirvine. So it's going to be neuro-calming, supporting the nervous system, and calming the nervous system. It acts on the GABA receptors so it can calm pain, it can calm inflammation, and it can

calm the nerves down. Also, it's highly anti-inflammatory. It really shuts down that cytokine cascade that's happening that's overactive in that moment for them. And then there's a fun side effect: It's very mildly antimicrobial, so it hits the little bacteria and hits the little viruses. But for that combination of anti-inflammatory and neurocalming, I love skullcap. Hands down, it's probably my favorite.

Dr. Jill 17:51
Gosh, I agree with you. They're two of my favorites. And then quercetin, of course, is anti-mast cell and anti-histamine, like you mentioned. It's so important. So what about a school environment? That, to me, is always tricky because most of the time we can't take them out of school. Are there any tips, tricks, or things that you've done where you really know the classroom is an issue, their gym, or some exposure that may be really difficult for the patients and family to avoid? What do you do in that situation?

Martin Hart, DC 18:18
Yes. So two sides to it: One side is like, "What can we do proactively?" So I'll say, "Let's talk to the school as a 'what can we do about this together?' setup." Not accusatory, because that'll get them on the wrong side. But especially go to the teacher first and say: "Hey, we've got this issue. We know it's here. What would you feel about me buying an air filter to put in the classroom? I'll pay for it. Would that be okay with you?" And a lot of times they're going to say, sure. Or maybe even: "Would you mind if I left this antifungal solution that you can mist around the room occasionally? Would that be okay with you?" I even have some parents who come in and the teachers will let them fog the classroom once a month. So they'll do that. They'll go in and fog. Those are proactive steps you can take. And then on the flip side, what I'll have them do is binders before they get to school and have them do binders in their lunch. Have the school nurse give them binders at lunchtime and then binders as soon as they get back home. In Chinese medicine, we would call it surrounding the dragon. But we're surrounding the issue with those binders so they're catching whatever is coming in. And then the same thing, nasal spray. We're going to do a custom blended nasal [spray], probably some silver and maybe a little bit of some homeopathic extracts and then maybe some essential oils in there so that they're getting it before and after. So you're clearing as much of that fungal and mold spores—to get that out of there—as we can, really trying to batten down the intake of those mold spores and the mycotoxins.

Dr. Jill 19:53
Okay, I love where you're going with all these lines of thinking because this is the cavity that we inhale [into]. It goes right into the lungs, into the bloodstream, and also closest to the brain. Let's talk specifics again about kiddos. Let's talk under eight, and then let's talk over eight, because kiddos can find it a little hard to do a nasal spray, a rinse, or whatever. What are you specifically doing with them with a nasal treatment? And then maybe before we go there, tell about: Why is this such an important cavity for the brain and for your kids in treating that?—because I agree.

Martin Hart, DC 20:23
Oh, yes. So the sinuses—we think of smell. We think of the nose and sinuses. That olfactory nerve—that's one of your cranial nerves. It's a nerve that does smell for us. It goes right into the brain and then it goes right next to our hippocampus, our limbic system. So it's going to gauge emotional regulation, threat response, fight or flight. What a lot of people don't know is that when you're smelling something, that means a part of that molecule, whatever you're smelling, is actually touching part of that nerve. That's how that transmission works. So it sounds really terrible if you're heading into a bathroom and you smelling what you're smelling. But that means a little bit of that is actually touching nerves and part of your brain.

Martin Hart, DC 21:01
So when that mold gets into our sinuses, it's going right through. It can get through a little part of the plate that's up there into the olfactory nerve and actually start to directly affect the brain. And then when those areas get inflamed, that inflammation is hitting right next to that limbic system, so it's going right to that fight or flight response, right to that rage and emotional center that happens there. So that's a biggie. And then this area gets colonized. A lot of times, you can colonize with both molds and fungi or even what's called MARCoNS. It's an antibiotic-resistant staph bacteria that happens there with a lot of mold cases and chronic inflammatory cases. So that constantly not only drips down in the system and creates inflammation, but it's directly impacting that brain factor right away for neuroinflammation.

Martin Hart, DC 21:43

And not to mention, we talked a little about the nosebleeds. We talked about what that can be. But some of these nosebleeds are scary. They're outright hemorrhages. I've had some cases with my pediatric patients. They weren't quite grasping how important it was to stay away from the exposure and we had to send them to the ER because they had such bad blood loss. So it can be major. That can be another factor there. But for some of my pediatric cases who can't do the nasal sprays, if I can get them kind of relaxed and used to it in the office, then mom and dad can do it back home. But if they can't, we'll nebulize. We'll nebulize at that point. They can just wear the mask. They can do maybe a little bit of silver, sometimes hydrogen peroxide or iodine because of its antifungal capacity, or maybe a little bit of essential oils. But silver for sure, is pretty gentle and easy. They tolerate that really well.

Dr. Jill 22:32
Oh, that's a wonderful idea. I love it. It's so practical. So obviously, the older ones. Are you compounding? Are you creating these in your practice? Are you purchasing them from a third party?—because I love the combination you mentioned, [such as] herbal silver and some of those things. What's the best way? Can patients get this on their own?

Martin Hart, DC 22:52
Yes. We do custom compound them. If we're in the office, we'll do various frequencies, muscle testing, and custom compounds. But really, you can do some basics. We always use nanoparticle silver. Like, 90% of the time, our base is nanoparticle silver. Pretty often, there's an antifungal component. You can get high-purity organic. Rosemary essential oil is very antifungal. The eucalyptus globulus goes great as a mucolytic so it breaks down that mucus and opens up the sinuses. It's mildly anti-everything: Antiviral, antifungal, and antibacterial. Those two right there, I find, are very gentle with that silver. And the nanoparticle silver—everybody is afraid it'll turn you blue. It won't turn you blue when it's a nanoparticle. We can process it out really well.

Martin Hart, DC 23:39
I find you can blend those three up pretty easily yourself, and it's very gentle and easy to do. Just a few drops of oils per two ounces of silver go a long way. And I'll get a little farther, where I'll do some anti-inflammatory oils. I'll do some very

strong antimicrobials. But I would say if you're trying to stick to really gentle and I want to try this on my own, rosemary and eucalyptus tend to go really well.

Dr. Jill 24:02
Oh, this is wonderful, wonderful information. And that's interesting on the silver. I agree. It's really if people are taking large, large oral doses that they have that issue. So I've never seen that the nasal [ones cause that problem] and I use that all the time too. In fact, we at ISEAI—the group that does a lot of the mold—the doctors and stuff, have really moved from any of the bacterial sprays like BEG to almost exclusively high-dose silver with EDTA or combinations.

Dr. Jill 24:29
Now, it's interesting you mentioned rosemary because, as a breast cancer survivor, I've always known that rosemary is so powerful, [with] anti-cancer effects. And I just read an article about a week or so ago that's gotten a ton of traction on the connection between Candida and cancer because, in the cancer cells, they found these yeast issues. I don't think that everyone who has cancer has Candida, but I think there are some cases. And rosemary being antifungal and antimold, as you were talking, it made me wonder: If it's antimold and it's anticancer, could there be a connection with it being antifungal in nature and the anticancer effects? Who knows? I'm just postulating at the moment.

Martin Hart, DC 25:05
Oh, yes. It's interesting to think about how, even on that front, metabolically, the way the cancer cell works and the way a Candida cell works are very similar [to] that sugar-hungry, starch-hungry setup. Yes, it would make a lot of sense. I like that thinking.

Dr. Jill 25:21
Just off the cuff here. But I love it. You've got the kiddos, and we talked about that. Obviously, the parents are involved. And treatment-wise for, say, a seven- or eight-year-old, would you be going for four to six months? What's your typical time frame?

Martin Hart, DC 25:37

Yes, that's pretty standard on that front. Kids respond so well. A lot of times, within a couple of days to the first couple of weeks, they're seeing huge benefits, especially if we can make outside lifestyle changes too—like mold avoidance or reducing some of the mold. Or at least the parents are willing to implement the pre-, during-, and post-school protocols. Four to six months is pretty good. If there are no crazy extenuating circumstances, they do really well in that time frame.

Dr. Jill 26:07
And that made me think about how if someone's doing really well and often they regress, you usually assume it's a new exposure. Is that the typical place that you go?

Martin Hart, DC 26:15
Yes, especially any of my kids, like my PANS/PANDAS kids, or maybe my more neurodivergent kiddos. The two big things, I'm going: "Okay, where was the mold exposure? Or, "What's the new stressor that's been introduced in their life?"

Dr. Jill 26:28
Good for you. I love that you're saying that because you have the stability and then so often they regress at some point. Let's go on to the infection and more of the PANS/PANDAS. First of all, frame this. If you guys have been listening here, you heard my interview recently with Dr. Jill Crista. We talked about this, but I think it's so important. And again, from the feedback that we got, there are a lot of parents out there that are dealing with these. What's really sad to me is that there are so many children now on psychiatric medications. Certainly, it may be appropriate. I don't have any problem with the right usage in a dire situation. But the problem is that so often it's not the root cause, as you and I know. Let's talk about what are PANS/PANDAS and how the infections play into this. And you already framed it as: The mold can weaken the immune system. But let's talk more about that infection link to the brain.

Martin Hart, DC 27:16
Oh, yes. So PANS/PANDAS, it's that pediatric autoimmune neuropsychiatric syndrome. One is associated with strep and the other is associated with other infections. But it's essentially when the infections get to the brain, creating neuroinflammation. A lot of these kids end up with obsessive-compulsive

tendencies, major anxiety, and neurodevelopmental regression. There's oftentimes a histamine component, so a lot of food allergies, a lot of seasonal allergies and skin issues involved for them, motor tics, etc.

Martin Hart, DC 27:45
What happens in my experience is that they may have these infections. A lot of these kids get their tonsils taken out because the strep hides there. They've got chronic viruses that show up. A lot of times, they've got mycoplasma. Less often do I see Lyme causing it, but it is prevalent. I would say the two microbes I see the most often are strep and mycoplasma when I run these kids' lab panels. But I have not personally seen a PANS/PANDAS case that didn't have mold at the root.

Martin Hart, DC 28:14
So when I run their mycotoxin test, when I take a really detailed history, it started with prolonged mold exposure, which in and of itself is going to create neuroinflammation, where really, it's going to suppress that immune system. And now these bugs... We have strep. We all have strep in our colons. We have small amounts of strep in our system. Probably lots of us have some exposure to mycoplasma, which is a very tiny bacteria that's associated with Lyme often, but it can be by itself. But suddenly, we can't fight them back anymore because of that mold exposure and we just explode with these infections. They hit the brain at that point and boom, that's that neuroinflammatory cascade. That's when we find that obsessive-compulsive tendencies take over.

Martin Hart, DC 28:56
For a lot of these parents, what they'll tell you is that he or she was okay, then got sick, and then suddenly wasn't the same after. So that's when we really suspect PANS/PANDAS. But in my experience, the infections are present, and dealing with the infections is vital; it's important. But really, we have to look at what allowed the infections to get out of control in the first place. And I would say—I'm not an absolutist, so I'll say 99%—99% of the cases, I see their PANS/PANDAS as mold at the root.

Dr. Jill 29:27
I love that you've said that, because I would agree. And I see a lot more adults than kids, but I see kids as well. And so often, I see the Lyme or the mycoplasma. I see

these other things that are playing into it or even heavy metals. What happens with mold, not only does it massively weaken the immune system, but it [also] trashes your detox system. I really, really like your train of thinking, because I think that a lot of doctors are doing really heavy antimicrobials initially. And maybe that patient wouldn't have to have that if we could restore their immunity. And it sounds like that's exactly the direction you're going.

Dr. Jill 30:01
I have found in my practice too over and over and over again, I keep thinking, "Gosh, not everybody has mold," right? But so often, shockingly, it's like you find it again. And I remember the very beginning after my experience, [when] I was like: "Gosh, I want to be objective. So I'm not going to assume that just because I had this experience, every patient I see has this." But over and over and over, I still would say, like you said, it's not 100%; they're so frequently... And I know now the patterns—probably like you do—the signs and things. They moved, or they changed locations, or there was water damage and things changed. And as I see that, I'm once again like: "Okay, here we go again. It's mold."

Martin Hart, DC 30:39
Yes. What's important to recognize too is that it's not just that so many of the cases that we would see are complicated and have mold. It's the fact that mold illness is becoming more prevalent because of the way we design buildings. We've set up buildings now that are mold havens. We've got indoor plumbing. We've got air conditioning. We've got humid environments. We've got drywall, which is essentially mold food. So we've created all these... And the more energy efficient your house is, the better the environment for that mold to grow. So we've actually created, over time, moldier and moldier setups that allow for more of it.

Martin Hart, DC 31:16
And then we've got poor education in the contractor world. Even in the mold remediation world, just to be frank, most mold remediators, the poor guys and gals, don't know what they're doing when it comes to a patient who's got chronic inflammatory response syndrome, mold illness, or biotoxin illness, because they weren't trained. The education isn't there for them. So they might tell you the house is clean. We retested it; it's dirty. They might tell you they vacuumed up and shopped back up the water. That's not good enough. So we're creating this bigger

environment where more and more people are getting mold toxic because it is more prevalent because of the way we build houses and manage buildings now.

Dr. Jill 31:54
All these important facts that you're sharing are so important because people don't realize [them]. And I think COVID actually brought this to a head in some ways because all of a sudden there's a moldy home but they were going to work every day for eight hours and people were more at home and more present in these environments that maybe weren't so good for them.

Dr. Jill 32:10
In this area where I'm living, there's a ton of construction and there's all these really fast multifamily homes and condos and things going up. I drive by every day. And for a while, this summer for Colorado is the rainiest and most wet month, like May, June, and July. And I would see rain pouring down and no roofs, just beams. And they say, "Oh, the wood is treated." But my thought is like, "Oh my gosh, those things are all... " Every one of them that I saw as I drove by every day, I was like: "There is no way that that wood isn't getting saturated and those materials that should be indoors aren't getting seeded." And then again, it might not actually be growing mold now, but the first time they get water leakage or humidity or issues, that wood that's in the house that just got totally soaked is going to be a nidus. And again, you and I see this all the time.

Dr. Jill 32:59
But I think the quickness of construction, the materials... And like you said, even in these LEED-certified, really, really efficient buildings, they're not letting air exchange. And I always say, "I'd much rather be in a 100-year-old log cabin with some holes in the walls where there's airflow than in a New York City LEED-certified building." And I've seen stories—like you have, I'm sure—of these buildings that are really, really beautiful multi-million dollar homes, and they are full of mold.

Martin Hart, DC 33:26
Oh yes. It's so sad. I just had a case that was like that. Her home was beautiful and I think she's $250,000 into remediation right now. And I'm going: "We maybe should

have had a conversation earlier in this process—how much to invest in it." But it's sad because it's exactly right. They're mold traps.

Dr. Jill 33:45
Yes. Again, we're doctors; we're not environmental remediators, politicians, or anything. But as we're on this topic, I think it's so important. I don't have all the answers but I'd love to know: Do you see any way—whether it's patients listening, a few people care about this or have illness in their family or you or I—that we can actually make any changes?—because I feel like it's overwhelming at times and I don't really know the answer.

Martin Hart, DC 34:08
Yes. I think sometimes it's okay to say, "We don't know yet but let's create more awareness publicly as best we can," as we raise awareness publicly. In public and political forums I say, "Hey, this is a big issue." And I think as practitioners, for us is being willing—which is scary because you're putting your livelihood on the line sometimes—to say: "No, let me write this letter to this institutional director." "Let me write this letter to this local congressman about wet buildings." "Let me talk to the school superintendent about wet building syndrome, mold illness, and chronic inflammatory response and how dangerous it is to the kids."

Martin Hart, DC 34:48
Get permission from the parents to show them this child's labs to show them how this has affected [them] so they can start to decide, at least for themselves. I think sometimes when you put a moral onus on them that says: "Yes, you can ignore this because of the budget but at the same time, I just need you to understand that by ignoring this, you're creating this illness for this child. Here it is on paper. I just need you to understand that if you don't at least create some awareness for yourself and take some action in the right direction, that's on you." So I think when you create that moral onus and that awareness, you're going to start to see at least grassroots changes in the right direction.

Dr. Jill 35:25
Thanks for sharing, because I think that is so important. I'm a very apolitical person; I don't get involved in politics. But with these kinds of issues, I felt more and more like I must, because we have the medical knowledge to say this is really, really

dangerous to our future generations. Even in political buildings and courthouses, it's an issue. Maybe in our churches and all of that. So I love that you share that, because I think what we can do is write letters. I've had a lot of patients ask me to appear in court. There have been a few cases where I have had to testify. That's not something I do on a routine basis, but when I have [done it], it's been very important just because I think those are the little wins. Right now, the legal system is very much weighted against homeowners, renters, schoolchildren, or any of these groups, right?

Martin Hart, DC 36:11
Oh yes. It's momentum but we're heading in the right direction, I think, slowly.

Dr. Jill 36:18
Good. What last bits of wisdom would you want to give to parents out there who are dealing with this?—because I think the one thing that you alluded to and that's so important that we maybe didn't talk about outright is that these kiddos can be so sick. And whether it's anger or aggression, it can be really, really hard on families. And you and I know what's going on in the kid's brain, so there's nothing but compassion for those behavioral outbursts and the things that are difficult to handle in a family. But it can get violent. I've seen parents who've had fractures and things from their children.

Dr. Jill 36:52
I just want to speak to those parents out there because I think this is one of those things that there's so much shame around it. You love your child; you want so much good for them. But when they have PANS/PANDAS or brain inflammation, they can really act out. The behavioral disturbances can be really difficult to deal with. And of course, we're helping the kiddos. But any thoughts to the parents that are dealing with this?—because it's hard.

Martin Hart, DC 37:14
Yes, I would say, as best you can, make sure you look out for yourself. Take whatever little moments of self-care you can. If you've been through it, you know that you have to muster all the mental, physical, and spiritual energy you can to work with some of these kiddos when they're at their worst because it's difficult. Like you're saying, they can get violent; they can get ragey. Don't take it personally

because they will pull out all sorts of stuff that you don't know why or [haven't] even heard these things they say sometimes from. So you can't take it personally when they're lashing out at you on that front. And don't give up hope. Don't give up looking.

Martin Hart, DC 37:46
I think even for myself, looking back, I wasn't as extreme as some of my cases I have that get like that. But recognizing that the moment they're in now, even though it's hard, difficult and sometimes scary, can become a strength for them later. It's going to be an experience they can pull from. So don't give up hope. Keep looking for answers and ask for help, most importantly. Sometimes I've had families who are in here and the parents know I'm a practitioner so they're in here getting help for the functional medicine of their kiddo. But they're not asking for help, [like]: Do you have resources for us for counseling? Do you have resources for us on how to help him behaviorally? How do I approach this?

Martin Hart, DC 38:30
Sometimes, if you don't ask for help, we as practitioners might get caught up in the doing, doing, doing of the setup. But I try to make sure we're offering [options] like: "Hey here are some support groups online or in person you can look at that are helpful. Reach out to these folks." They're helpful. To be around people who maybe aren't used to neurodivergent kids or kids dealing with these infections or these toxicities... So find other families you can connect with, because the typical mom and dad at school may have no idea what you're going through. They don't know why your kids are acting out. They may have no understanding of how to give you grace. They may offer you advice that's terrible for your situation. So find like-minded individuals. Reach out, ask for help, and don't give up.

Dr. Jill 39:08
Oh, my goodness. That is worth its weight in gold. It's so important. The last bit here is, say a mom or dad is listening and they think their kid may have mold or they're dealing with that. What are—like one, two, three—really practical tips where they might be able to start if they don't have a practitioner to get some treatment or do some things that they could do at home that's safe? What would be the starting point with either themselves or a child and the treatment?

Martin Hart, DC 39:33
Yes. I would say what's typically pretty helpful is doing some natural antihistamines, whether that's a little bit of quercetin or even a little bit of vitamin C. It tends to be okay. Vitamin C could be [helpful] if you have oxalates. But most kids tend to do well with that. A very gentle binder like humic and fulvic acid goes really, really well in that. And then something to calm the nervous system. If you want to go really gentle, we would just start with maybe some magnesium. So I'd say looking at something for inflammation, maybe like a little bit of quercetin; looking for something to help bind up some of the mold so maybe humic and fulvic acid; and something to calm the nervous system, maybe a little magnesium.

Dr. Jill 40:11
Brilliant! Brilliant, brilliant. Dr. Hart, it has been such a pleasure getting to know you and hearing your take. It's so aligned with what I'm doing, and it's nice to know. Sometimes, even as a practitioner, you feel kind of alone. And what great work you're doing and what an important thing for these kiddos. Are you still taking patients? And tell us a little about where we can find you.

Martin Hart, DC 40:32
Yes. We're just south of Nashville, Tennessee. We do take new patients. There's myself and another practitioner in the office. There's another clinician who does the exact same work I do. So we do take new patients—pediatrics, families, and adults—on that front. The practice name is Keystone Total Health. We're more than happy to take new patients virtually and in person.

Dr. Jill 40:51
Wonderful. And where's your website?

Martin Hart, DC 40:53
Yes. KeystoneTotalHealth.com. And then you can find us on Instagram and Facebook under the same [name].

Dr. Jill 40:59
Awesome! We will link up wherever you are found on this episode. Thank you again for your time today.

Martin Hart, DC 41:04
It was great chatting with you, Dr. Jill. Thank you!