Introduction to Dr. Lauren Tessier

Welcome to Mold, Mycotoxin, and Chronic Illness Summit. I'm your host Dr. Ann Shippy. Next we get to speak with Dr. Lauren Tessier. She's a naturopathic physician specializing in mold related illnesses.

She's the former president of ISEAI, which is the International Society for Environmentally Acquired Illnesses. And she is truly on a mission to help people learn about mold and recover.

Thanks so much for joining us. Hello again. I could just hang out with you all the time here. Just so knowledgeable and have such great information. So this is awesome that we get to meet again.

Let's talk. Let's do a little overview this time and just really talk about what mycotoxins are. Sure, sure. So I know the whole entire some of it's about Mycotoxins, but you know, Mycotoxins are those really, really teensy tiny what we call secondary metabolites that are produced by some fungi, both yeasts and and molds and these tiny little molecules that are pretty sneaky.

They are lipid soluble, so they pass into cells really easily.

What Mycotoxins Are and How They Affect the Body

And once they're in those cells, they can cause a lot of oxidative damage to any part of the cell that has some fat in it. And it just so happens that the cells in our body have our, our fatty lipid membrane and all of the machinery inside our organelles also have that fatty lipid membrane.

So these mycotoxins can really impact a lot of most of the areas in the body. Right. And then the other difficult part about them is they tend to bio accumulate in where they really like to bio accumulate as in areas that have a lot amount, a high amount of lipids, fat, so brain, liver, kidneys.

But the interesting thing about Mycotoxins is they really they have a few different ways that they can get into the body. Of course, we have our inhalation that we typically see from the environment.

There's also transdermal to a lesser extent, but somewhere between the transdermal and the inhalational. That's where we find the ingestion component.

That's where we find that absorption through the gut. Yeah. So let's talk a little bit about when that happens. Like, what is it that causes us to ingest mycotoxins.

Yeah. So ingesting of mycotoxins. So mycotoxins can exist in like a free form in our food or they can exist as a mold contaminated, active, growing mold active growing fungi in these foods that are then secreting it.

So essentially you can either have the mycotoxins alone or the organism making them like a toxin in our food system. I mean, sad to say, the U. S. has some of the the loosest when compared to some developing nations, the loosest controls on some of these mycotoxins in our food such as ochratoxin aflatoxin.

Those are typically the big ones. And then we have the the Vomitoxin very properly named, you know. Yeah. Yeah, absolutely. So, you know. Very shocking how behind we are on setting standards for like there's so much research about ingesting mycotoxins and the fact that we don't have better standards really is surprising.

So follow the money. Look at who's in control of setting those standards. So yeah, so buyer beware, except for the companies that are really starting to do third party testing and and really protect dust just through their their pride in their brand.

Right. Right. And it's I always tell people if you're going to be ingesting what's usually mycotoxins rich foods just already assume there is the legal allowable limit because what they end up doing is they have a pile of moldy corn with, you know, let's just say like 10 pounds of mycotoxins.

It's horrible number. But so what they do is they add uncontaminated corn to it until they dilute that 10 pounds of toxin down to the legal allowable standard for however many tons that is using 10 pounds verbage, a horrible term for like mycotoxins that it's less than pounds within tons.

Food Contamination and Mycotoxin Standards

But that's just kind of the global example for the talk. Yeah, yeah, yeah. So because years ago I sat next to a woman on an airplane that worked for the Mars Corporation, and I learned so much from her.

She was involved in the quality aspects of, of their incoming material. And I always thought about Mars as like, you know, it's a candy bar company, but it's so much more.

And she was saying that they had one of the toughest standards for their incoming material for corn of any company that she knew. So it actually made me like, oh, okay, I like this company.

And she said, corn is especially hard to get. That's not truly contaminated. And so she was on a, you know, a mission to really tell people to not see corn because it's really hard to get corn that meets, you know, even more, you know, the Mars standards.

They have to reject a lot of corn. Right. Right. And that's probably from all the corn syrup, right? Mars candy, I think. Right. Yeah. Well, and dog food, they even do it that their standards are dog food and other cereals and that kind of thing that they produce.

Gotcha. Quite impressed with with I guess it's a family owned business still and that they just really want to have high quality food for the food that they produce for animals and humans.

Yeah, that's phenomenal to hear. I would not have expected that. Sorry, Mars. I just I stand corrected now, but yeah. Yeah. So sorry. That was a segway.

Yeah. No, it's great. It's a great segway. It's important to to know that a lot of these grains, the coffee, the chocolate and the nuts and seeds are all all things to be considering where you're getting and how you're eating them.

And I like what you said where you might have to assume certain foods are already at the cut off. Mm hmm. Yeah, absolutely. Absolutely. Too high. Too high.

Too high. Too high. And again, compared to a lot of developing nations are our standards are not our standards are higher and legal allowable limits are higher.

And if you compare those limits to some of the limits or some of the what we call the NOEL the no observable why am I blinking on the E one. No, it's essentially a no observable negative impact.

So when they're doing mycotoxins studies, they'll look for issues that pop up. And you know, a lot of these food exposures are far higher. Actually, I have that backwards.

My apologies in a back up for a second on that one, if that's okay. Yeah, Okay. Yeah. So what we are seeing is that our food standards tend to allow higher amounts and what we usually think to be these like no observable impacts are actually coming to find out in the research having big impacts on the cellular functioning of the animals that they're testing, the human cell lines that they're testing.

So, you know what? We we don't have any idea of what the limits should be. And I think the close to zero, the better. Absolutely. Children. Mm hmm. Mm hmm. Yeah.

And so, you know, a lot of the goals here, the ways you can really decrease that, obviously, is to reduce the things that are coming in to your body that are going to have and carry mycotoxins.

But, you know, there's this whole other world of like gut health and dysbiosis that has almost this or this, you know, chicken egg kind of dance of is it the mycotoxins and the fungi causing the dysbiosis or is it the dysbiosis supporting and allowing the fungi and the mycotoxins to flourish?

So I think it's really a appropriate that, you know, your summit this time around is talking about the intersection of, you know, glyphosate really realized E.coli and what's happening in the gut with fungi and mycotoxins.

Well, let's so let's explore that a little bit more. Let's start playing how Mycotoxins may be contributing to dysbiosis. Sure. Oh my gosh. So I kind of up I separate typically the idea of what we're talking about.

I separate our organisms from what they produce. They're mycotoxins. And so, you know, just from a leaky gut perspective, you can typically say that dysbiosis lays the foundation for the leaky gut.

But if we kind of saved dysbiosis for later and just kind of get into the superficial aspect of how fungi can directly impact the gut leading to leaky gut, they have these little arms, these little hyper, almost like they're roots of a plant.

But you can think of the roots as mycotoxins that will grow into things and kind of settle in there and grasp on and hold on to them. And so we actually see in the research that fungi are more than capable of driving their little hyphae into our mucous membranes and locking in.

How Mycotoxins Drive Gut Damage and Leaky Gut

And so what ends up happening there is your cells get really upset, you're really panicky. They start to release their inflammation signals. With that, you get some of that swelling and with that physical mechanical swelling and that inflammation, you start to get some of that, what we call gap junctions, the buttons that keep our cells together.

You get this physical separation of the cells, which then allows for entrance of anything in the gut. And so that's more of the fungal organism and how it's leading to leaky gut, whereas mycotoxins themselves, they cause oxidative damage to the cells in the lining of the gut, which then of course leads to inflammation.

That same cascade of that swelling separated gap junctions, leaky ness, allowing entrance of these things into the body, so much so that the research directly says, you know, vomit toxins, airline zone, different subtypes of aflatoxin, T2, okra, toxin, they all have an impact on tight junctions and the associated proteins, the clot ends and the occlude.

And so that's kind of the the direct link. You got a totally just, oh, missed omitting the discussion of dysbiosis. So let's talk a little bit about what the symptoms are when we're having these issues with dysbiosis and increased intestinal permeability or leaky gut.

Yeah. So anything, anything which is, you know, I think might be really shocking to people. I think folks when they think gut issues, I'm going to be pooping funny.

I'm going to have gut rumbling and, you know, stinky stools, all that kind of stuff. But the reality is our gut is it's our rainforest, you know, it's it's the part of our body that transforms things and really is the core part of our health.

You know, I think a lot of people get it kind of like, yeah, yeah, yeah, gut health first, this kind of thing. But it's really true to the point that there are there are animal studies that show that when you create a dis biotic balance in the gut, you can in Alzheimer models essentially have mice develop more severe Alzheimer's like symptoms.

And then soon as you bring in the probiotics in as you bring in that balance back into the gut, a lot of those Alzheimer's like symptoms start to clear up.

It's not just in animals. We actually like your brain. Yep, absolutely. Like you got leaky brain. And we even see in human studies, actual human studies, not human cell lines, where people become despite we see flares and anxiety and depression, and then soon as they replenish the beneficial bacteria and remove that dysbiosis their anxiety and depression drastically improves. So, you know, what are the symptoms and dysbiosis is it's everything, you know.

And there's a huge neurological component here, too. I tell people, think about the the nervous system connection to the brain as just a fatty highway.

You know, we know that toxins can dissolve into cell membranes and into high lipid areas and realistic. LEE We have to neurons essentially connecting our brain to our gut.

And that's just one fatty highway that toxins can just dissolve into and start that inflammatory signal back up to the brain. So even though these physically seem really far apart when you think of circulation, lymphatics, when you're directly dissolving into the nervous system tissue, it's a really quick jaunt up to the brain.

Yeah. So I think what your point is, is that you may have pretty significant dysbiosis and not even feel anything in your gut. You may think it's normal, but you see systemic responses other place in the body, especially in the brain.

But you might feel some gut symptoms, too. Oh, for sure. Absolutely. Absolutely. And you know, of course, too, with that comes autoimmunity and generalized systemic inflammation.

And, you know, the list really goes on and on when it comes to this virus. Yeah. Yeah. It's like playing with the six degrees of separation that Kevin Bacon gave in the nineties.

I might be dating myself, but I always tell people, six degrees of separation, we can connect anything in the body. You just got to give me a few minutes, you know.

For sure. Well, and I love the rain analogy that you gave. It was just said it's the center of the universe with the kind of soft everything's going to be hot because it's involved in so many different aspects of the rest of the body's physiology.

Right. Right. Yeah. Let's take and glyphosate because nobody's immune from glyphosate these days. And it has such a I think, you know, not just one plus one equals two, it's one plus one equals a thousand kind of thing.

Yeah. We got the glyphosate and the mycotoxins both. Right. Right. So you know the, the biggest. So to pan out for a second for folks that are maybe mildly familiar with glyphosate or maybe not at all, okay, if you're not, it is in some weed killing products.

I'm not clear that we should say the company name. I don't know. I don't care. But go ahead. Okay, great. So glyphosate is a core component and a lot of pesticides, including Roundup.

You know, this has come under just a lot of legal cases around severe illness resulting from exposure to Roundup, including cancers. And I believe a couple of cases have been won for for that particular topic for cancer with clearly with Roundup exposure.

And when Roundup first came out or glyphosate first came out, they they essentially said, hey, like the target for glyphosate is not found in human cells and so it won't be a problem.

Glyphosate, Dysbiosis, and Fungal Overgrowth

What came to pass is that glyphosate is really, really, really good at pretty much targeting anything but human cells. And that also means it's really great at targeting bacteria, it's great at targeting our microbiome.

The downfall, the biggest downfall about that is for some reason, some way, shape or form, Glyphosate is really,

really good at targeting our beneficial bacteria.

It is absolutely in the literature. When you are exposed to labor, say you're dropping down, your lactobacillus counts, your bifidobacteria counts, your firm activities, all these different kind of global groupings of beneficial bacteria.

And the problem with that is in that same broad stroke, you're also getting plenty of resistant bacteria that are problematic. You're salmonella, your your Clostridium, your klebsiella, your citrus factor, even your pseudomonas.

And so the the problem with that obviously are a lot of these are disease causing elements. But there is this whole paradigm that happens. Then fungi start to kind of sniff around and say, hey, what's going on over here?

There's a shift in the gut microbiome. You know, and some real estate. Exactly. Hey, we can take up some real estate. And it's amazing if you look closer at fungal growth in the gut when you're having an overgrowth of problematic bacteria, you actually see fungal overgrowth and probably bacteria, problematic bacteria run hand in hand.

They actually support each other. So a perfect example of this is Pseudomonas in Aspergillus Fumigatus growing together, growing a beautiful bio, toxic biofilm together.

And so that can really be underscored by that, that glyphosate imbalance. The other thing that can happen is that, you know, when your good bacteria die off, you're also getting rid of all the beneficial things that they produce.

And a lot of your good bacteria produce these antidote lesion molecules which stop fungi from sticking to surfaces and holding on and starting to grow.

When you also kill your good bacteria, you're going to kill all those beautiful oil product from your short chain fatty acids. Like a good example of this is like your propria know it.

And so it's as problematic, of course. So the glyphosate is really just it's hitting your good guys, it's encouraging your bad guys. It's even leading and underscoring drug resistance too, if you believe that we're not, it's it's in the literature.

And so, yeah. It's part of why we're seeing antibiotic resistance. Right. And you I it didn't it surprised me in but when I found that that's pretty interesting you know you the sideways hop between a pesticide and then leading to multidrug resistance in bacteria when you step back and think about it like yeah, it's logical, it makes sense.

Bacteria have these little fingers and they pass and share information to one another. So of course someone that made it through the glyphosate is going to be able to pass that information of how they survived on to the other problematic bacteria.

So totally makes sense. But it's a little shocking at face value when you first encounter that, you know. So I really think that people need to try to eat organic as much as possible, and it's getting easier and easier with places like Costco carrying so much organic food and giving those options.

Where are you? And then. Yes, yes. And right. There's always a yes. And I think that the more organic you can eat, the better. I also think that we need to be going a step further and really being too exacting to support our gut in addition to eating organically.

One of the hard parts of our eating organically, though, is there's a couple of studies out there and I think it's a pick your battles type of thing where because they're organically grown, they don't have fungicide applied to them.

And so there is a bit of literature out there showing that there is increased mycotoxins in organic baby food compared to their non-organic counterparts.

And like what a bum out, right? What I, I can, I could pull up the like I got a research article for that disturbing I know I know. And so you really have to you have to you know, pick pick your battles.

You really have to pick your battles. So I'll go ahead. No, please. Oh, and then then there are other countermeasures that we can take. So for me, eating foods that are less likely to be moldy and then eat them organic.

But then there are other things that we could be doing to help support detoxification support. I got to say, I love it if you dive into some of that information.

Yeah, absolutely. My pleasure. You know, I think that from that this biotic perspective, it's going to be really important to try to bring balance back to the gut and how I think about targeting that is really working on reducing inflammation and supporting that like amylase, elimination, detox, part of the gut.

So to kind of oversimplify it, it's make it inhospitable to the bad bugs, make it hospitable to the good bugs. And you're really doing that through anti-inflammatories and binders.

And then after that is usually when I start to work to reseed the gut because I don't want the good bacteria that I'm putting in to have an uphill battle.

I like cleaning things up a little before I start putting in those those new beneficial bacteria, because I also want to avoid the whole I caught the the, the warring factions side effect where you just bomb someone with probiotics before really prepping them and they're, oh my God, I got all this gas pain and I'm uncomfortable and my stool is loosens because you're warring populations literally happening in your gut at the time. So you know really I'm working first to target the inflammation and then helping to kind of bind up some of the issues there in the gut.

So what are your favorite things to reduce inflammation? Oh, yes. So I would have to say the first one is is modified, introspective. And this is for very many reasons, I think, of modified citrus pectin as a deep binder.

So it's one of the few binders that is going to leave the gut and actually cross into the bloodstream. And I think that's really exciting. When you put charcoal into the gut, it stays in the gut.

When you put clay in the gut, it stays in the gut. But with a modified citrus pectin, it does have the ability to scavenge into the blood.

Detox and Gut Repair Strategies

The other thing about modified citrus pectin is that it helps to it helps to minimize inflammatory reactions that tend to happen when people are going through mycotoxin detoxification or when they're going through anything that's going to cause like an inflammatory plaques.

So we've seen in some of the research associated with modified citrus pectin that it dampens inflammation. It can dampen that mucus response, that muscle activation response.

And so that can really help people from essentially Herc sing, to use a term very loosely, essentially just from having really gnarly die off reactions and treatment reactions.

The other great part about the modified citrus pectin is that it has this target called Galectin three and Galectin three is like a it's it's a scaffolding for biofilms.

That's really what it does. It's this fibrous network that kind of goes around and protects anything in the body that is inflammatory. So it's used in biofilms that's used to ward off problematic parts of the body.

And so when you use a modified citrus pectin and you are allowing it to kind of go throughout the body, you're having it target that fibrous network that collected three and you're breaking up biofilms.

So the really cool part about modified citrus, like there's so many cool parts. I'm sorry I keep saying that this is so cool. Honestly, I'm. Beginning to think that it needs to be on.

It's like living in the world that we live in today. We all need it. It's insane. It's like. Oxidize. Yeah, it's. It's unbelievable how much it does. But the the the biofilm aspect is that it breaks up the biofilm and that really an easy things.

There are only a few things that do that right are well tolerated. That exactly keyword well tolerated. Right because there's not there's not a lot of biofilm disruptors that or that even can do as much in other systems and other targets that the modified disrespecting can.

So it's it's great to avoid antifungal resistance because if you can break up that biofilm and deliver that medication to the gut at that time without having because the biofilm is not only just a physical barrier, but it also is part of that information sharing from bug to bug to bug.

So if you have the ability to disrupt that, you're going to send the drug in to that space. Better, but you are also going to have the bugs take it back a little bit.

They're not going to know that the shock is coming. They're going to be more susceptible to that antifungal or to that ends up microbial depending on what part of the dysbiosis you're treating.

And you have a fungal overgrowth, you have a bacterial overgrowth, you have a little bit of both. Okay. So the modified citrus pectin, it's a really profound product.

And another thing, if you're in the Shoemaker camp of mold, the Shoemaker camp serves world. They have the concept of MMP nine. MMP nine is an inflammatory marker that is secreted by, I believe, white blood cells when there is inflammation.

And what that does is it gets the blood vessels to open up and essentially become leaky. Right. That's a little bit meta in this conversation. And so when MMP nine spikes, you get that leaky ness of the blood vessels and the modified citrus pectin has the ability to essentially block MMP nine creation.

And so you're also potentially dampening the leaky ness of your blood vessels. And that could be the weakness in the blood vessels in the gut, the weakness in the blood vessels in the brain all throughout the body.

So it's amazing. It's I, I think it's going to likely end up being one of the like next panaceas. It's going to be the next NAC, it's going to be the next resveratrol.

I really or it might be more powerful than resveratrol, but I think it's really going to start to pick up. It's really starting to become a really pivotal part of the a an effective protocol.

Absolutely. And so that's the cool part about the modified citrus pectin is, again, it's going to decrease the inflammation. It's going to prevent those big inflammatory cytokines, mast cell responses and is going to help break up the biofilm.

So your antimicrobials are going to work better. The other thing I like pairing in with it is a really well-rounded, I would say almost like another type of a binder, but it's not quite as much of a inflammatory dampener.

And very specifically, you know, it's a proprietary product. It's by a company. You go new Gen X, it's called glycol detox. And this one is great because it's not only hitting glyphosate, it's in the name, but it's also has the ability to hit Mycotoxins too.

And the reason why it can hit both A is that it has glycine in it and glycine will compete with glyphosate in the body. So the issue with glyphosate in the body is it goes in, it gets into the spots where your glycine and amino acid should sit.

Turns out glycine is needed for a commercial brain. Turns out glyphosate is. My favorite things to recommend. Actually, yeah. Anybody who's having any level of anxiety could have some pretty decent doses of glycine in it. Oh yeah, Yeah.

Take the edge off. And then there's people like me who have the antithetical reaction and I take glycine and I am tired. So I will just throw out that caution. Yes.

Yeah, that's true. It's every once in a while. It's not very often. No. Yeah. Go to let people know it could be that way. You know, I'm one of those people with the extra tendon in my foot, the the accessory nerve in the mouth that needs more Novocain.

I'm wired different. If people can tell when. It was. Perfectly. Right. So the glycine and the glycine is going to help. So let me back up just a tiny little bit.

So the glyphosate goes in, essentially gets into where your glycine works in your body, and that's where, you know, like you mentioned, it's helpful for sleep and helping for people to show up.

But glycine is also a key component of your if I am the biggest master antioxidant of the whole entire body and so if you have glyphosate floating around, then you're probably not making appropriate levels or functional levels of glutathione, which is a scary thing to think about because your glutathione is needed to further detox these things.

But yet glyphosate is tucked into it, so how functional is it really going to be? So the glycol detox does have glycine in there and you know, when people are also going through a detox protocol, it can inflame the nervous system, you know, because you're also being histamine responsive to whatever you're clearing out and that histamine is neuro excitatory.

So double down on the glycine for sure. In addition to that, there are a few other really nice binders in there. A couple of them are seaweed based, and this seaweed in particular is third party tested before ever gets into the actual product itself.

It's an Icelandic seaweed or it is a brown seaweed that is highly purified. So it's just the alginate in it. And so not only are those acting as a binder, but the alternate acts as a prebiotic for all those beneficial bacteria to really try to support them and get them going again.

Additionally, there's some folic acid in that that's naturally an antioxidant, has some good minerals, supports the gut wall integrity. So there's there's a lot of wonderful things in that particular product.

The glycol detox. That's a great combination of things that hit multiple different pathways. Yeah. Yeah, absolutely. Yeah. So I'm going to Gen-X also.

Yes. Yep. Yep. And if people want like the extra gold star on this, you know, you can, you can grab I think I have that in a bundle. I think it's called the the mega toxin Rescue bundle.

They might also have that as a same name as like the the detox rescue bundle. But if we're talking about dysbiosis and we're talking about clearing out the toxins and binding them up and then addressing the inflammation in the gut, because remember, I also spoke about receding the gut.

And the whole reason why we do that first cleanup is so that when you go to reseed the gut that it sticks. We don't want to just throw probiotics into just one.

And, you know, two months later, because we didn't make the foundational changes we've waste all that time, all that money, they're uncomfortable again, problematic again.

So you've laid the foundation and now this is where, you know you're welcome to bring in probiotics, things that are really rich in lactobacillus bifidobacterium.

You can always do stool testing to kind of see where your your gaps are. There are some stool tests that might be better than than others. And so favorite my favorite, I would have to say is I'd have to say it's the the de novo or the doctors data.

Yeah those are the. Two ones I what my where I, I think I've got looking for you two. Yeah I like. That doctor data does a better job of finding the fungal.

Yeah. Yeah. And there's also a little bit of research out there. I don't know if you bumped into it too. There's quite a popular stool test that unfortunately does not have wonderful sensitivity and specificity, and it's one that is widely used in our industry and it's not genome, our doctors data.

So that's why I so reseeding the gut with probiotics again you're going to do next has a nice product that's called eco probiotic there's eight strains in there.

Mast Cells, Nervous System Support, and Recovery Mindset

And the additional benefit is that there are lots of wonderful herbs in there that are not only, but they're naturally antioxidant because of all the rich polyphenols and they have antimicrobial components because of all that, like tri points and all that kind of good stuff.

So really good product and some of those same herbs that have the antifungal antimicrobial component are also what's the word. Help me out and stimulating to the gut.

It helps. Your resources. Thank you. Helps it help you keep things moving. And I can't remember the specific herbal, the herbal constituent term for things that moves the gut, but really, really great product all around.

And if I have someone who's coming in that's kind of on the mass cell front, there's one other trick I have up my sleeve and that is a magnesium of magnesium magnolia bark extract.

Magnolia bark extract has been shown to be one of the only things that sits and blocks the H three receptor. So the histamine subtype three receptor, and this receptor is really active in the brain.

And so for folks where we've layered on an H one blocker like your Benadryl or your search within and then we layered on the H two and the Cimetidine, but we're still maybe having some issues sleeping or a little bit anxious and maybe the other herbs aren't sticking.

That's when I turn to the hinoki extract the the magnolia. When you say magnesium, the magnolia bark extract. Right. Because it hits it converts that glutamine into GABA, it's really calming.

It's going to perpetuate that glycine benefit for folks and it's going to have that anti histamine component and it actually has a antifungal and antimicrobial component to.

So in addition to the the MCP, the modified citrus pectin, I'm thinking the the magnolia bark extract is also going to be another one of those supplements that everyone's going to be on in the next few years for sure.

Yeah. And, you know, it really is true that you end up having to hit multiple mechanisms to get something done with that. So it's really great to have things that are synergistic that really work well together.

Yeah. And I mean, there's some people where you do the, the, the whole antimicrobial component and you work on clearing things out and they get a histamine dump like the folks who are just too sensitive to even start therapies.

Those are easily the people, right. That you have to start all that mess work on first before you can even. It's like the shoehorn. To. Treatment. since we've had the land of COVID that I feel like everybody's mast cells are a little bit upregulated and then you throw mold and dysbiosis or, you know, these low grade infections and it's, it's, it's really been quite fascinating to see the differences in the last few years.

Yeah Yeah I see then so yeah an important piece of having to navigate people getting well. Yeah I remember in 2020 when everything was kind of starting and you know, Dempsey and Afrin came out and they were like, Hey guys, it's the mast cells now.

And, and so I'm so happy it is to see that catching wind. And also I believe there's actually been some confirmatory studies that show that the mast cell activation is a core component in that long haul syndrome for sure.

Absolutely. And clinically, you know, it's just right. It's what helps people get well. Yeah. Yeah, yeah, yeah. Well, are there any other words of wisdom that you would like to share?

You've given so much anything that you saw. I just feel. I feel bad for everyone drinking for the fire hose right now. I just hear the the the number two LEDs in the pencil's breaking from the furious taking of, you know, I there's a lot of information out there and I don't get scared.

Don't get overwhelmed. The best thing that you can do when trying to navigate the world of mold and mycotoxins, whether it's in the environment or trying to heal a fungal dysbiosis in the gut, is just to make sure that the relationship that you have with your illness is not always throwing you into that fight or flight and that fear and panic.

Don't let it isolate you. Don't let it become everything about your life. You need to laugh. You need to surround yourself with positive feelings. And it might sound wishy washy, it might sound like rose colored glasses.

But the reality is if you can bring that that shift from that fight or flight into that parasympathetic that you know, chilled out vagal tone you're going to do so much better in your recovery no matter what the illness says mold or not. Right.

So just try to stay positive, as trite as it's honest, but it's true. Yeah. Yeah. And we have several great lectures to focus on this because it's it it I see it as being foundational.

So that's a perfect segway for the importance of listening to these other lectures, because I think a lot of times people think that that's the worst out of medicine and it's scientifically based, and that's just not true anymore.

We've got so much scientific information showing that we really have to get that sympathetic, parasympathetic regulated and get the limbic system to to relax.

Right. And now there's so many different great tools out there to help with that, like a regular needle nerve stimulation, the one last little gem. Okay, they're out there and sorry I just keep up about is that when you're going that whole limbic system retraining, make sure you feed yourself.

Make sure you feed yourself your before your brain cannot do the work of rewiring if you are not in a fed state. So also, along with working on those positive emotions, make sure you're feeding yourself too.

That's going to be really important. That's beautiful advice. Thank you so much. And how do people find you? Oh my goodness. So people can find me again My name is Lauren Tessier. Dr. Lauren Tessier.

They can find me through my business Life After Mold. I'm pretty much on every social media platform. You can just look for that handle. And if people additionally want there is a mold prevention 101 document on my website which walks you around your house and gives you kind of the hotspots to look out for and keep an eye on.

You know, like, do you have geo strains? How is the land sloping? What is is it damp your dryer vents that way people have like a something nice to just keep their eye on their home.

So anyway, that's that's me in a nutshell, and that's where to find me. So thank you so much for having me. This is just such a joy every single time.

So thank you. And yes, I always look forward to getting to connect with you. Thank you so much. Thank you.