

Dr Mel - Transcript

[00:00:00] **Chloe:** Hey guys, it's Dr. Chloe and you're listening to the Radical Remedy podcast.

Today's episode is with the absolutely incredible Mel Hopper Koppelman. Now Mel is such a badass and I have followed her work for years. She is not only an integrative healthcare practitioner, but she's an educator, writer, blogger, researcher, and truly one of the greatest nerds I have met.

I am blown away by how deep Mel goes into it. every facet of science that she is really interested in. So she has not only done a tremendous amount of studying, uh, developmental neurology, but she dives into ancient classical Chinese medicine, as well as deep diving into functional medicine. And I could listen to her explain these things all day, every day.

So I hope you guys enjoy this episode as much as I do. We go down so many different nooks and crannies. Let me know what you think. And please like subscribe and follow the show. It's really important to help us grow. And I really, really, really appreciate it. Dr. Bell, you have done such incredible work.

Diving deep into neuroscience, into Chinese medicine, into Chinese medical philosophy. And it's such an honor to have you here. And I can't wait to see where this conversation goes.

[00:01:15] **Mel:** I'm excited. It sounds like we've been walking on parallel paths. So it's nice to find a kindred spirit and to get together and have a chat.

[00:01:26] **Chloe:** Yes. No, this is going to be really fun. Um, so.

Diving Deep into Functional Medicine and Chinese Medicine

[00:01:29] **Chloe:** I know that you have been diving deep into so many different facets of health, including doing a lot of work in terms of, you know, sort of functional medicine, doing a lot of lab testing, and going deep into that scientific super nerdy world. And one of the things that I find as a doctor of Chinese medicine, and I think you found this also, is that a lot of times these labs have Um, sort of misleading results, and they're not really getting the full picture.

And to me, a lot of times, it just comes back to Chinese medicine, really deeply understanding the ecology of the body in a way that these labs and sort of functional medicine or Western medicine do not understand. And I think you refer to it as sort of first principles.

Understanding First Principles in Health

[00:02:15] **Chloe:** I'd love for you to talk a little bit about that, because I really just love your perspective on Sure,

[00:02:21] **Mel:** uh, yeah, so when I talk about first principles thinking, it's really just understanding the essence of how something works, you know, and in this case we're talking about health but we could apply it more broadly to nature, to living systems, you can really apply this lens to anything but it's just the basic rules of how something works and it, they tend to be fairly simple.

And they tend to explain really well what you're looking at.

The Limitations of Lab Tests in Functional Medicine

[00:02:51] **Mel:** And so what happens is that when you look at biochemistry, which is a view of the body, that's very zoomed in, it's based on a whole lot of assumptions that Most people are not aware of, and they just innocently like run their lab tests and look at the numbers and go, Oh, is this good or bad?

And they don't realize what they've walked into. Um, and so I'm happy to unpack all of that, but, uh, at the end of the day, the biochemistry does not reveal the first principles. So, uh, Let's say you wanted to figure out how a human worked, you could run lab tests for a million years and you would never get to the first principles because it's not the right lens for doing so that would be like going to the ocean and looking at all the sand and trying to figure out how the kind of oceanic ecosystem works.

It's just, it's not going to happen, right? So what I realized that that You actually need to understand the first principles first so that you understand what questions to ask and how to interpret what's in front of you. And so very few, well, very few people do that because most people are under the illusion that you can find out how things work by looking at microscopic.

And then folks who have tended to, uh, be more attracted to, let's say like the philosophy of nature, which is what science was originally. Maybe are not as interested in quantitative data analysis, you know? So there haven't been, uh, very many people, but there have been some who've basically gone deep enough to go, Oh, it's like, you know, the way I was like, Oh, we've gone too far.

Come back, come back, uh, in this direction. Um, and, but basically for me, that was based on like a series of many, many, many like aha moments or, you know, flip flopping of recommendations of how to use data or I'm running a lab test and then the. Lab company adds another marker and it's like, this is the most important marker.

And I'm like, well, what were we doing before then? If this is the most important marker now, and it all is about acromancy or whatever, then what were we doing? Oh, acromancy is so hot right now.

[00:04:58] **Chloe:** Oh, well, that's a whole other story. Has nothing to do with the funding behind the company during the marketing at

[00:05:04] **Mel:** all.

I've got acromancy stories. I've got all kinds of stories, but. You do it enough times, uh, and you have these realizations that this doesn't mean what they're saying that it means. And not because there's any sort of, like, malintent, it's because nobody's asking questions about what they're actually looking at.

So I'll stop there. There's like lots of rambling and ranting that can go on a column. Oh no,

[00:05:25] **Chloe:** I, A, I love the rambling and ranting. That's what you're here for. Rambling and ranting. Yeah. Um, you know, I, I think it's so fascinating to watch because it's been really interesting watching functional medicine come to the scene and become so popular and how that has evolved.

So like I know some really brilliant people in functional medicine who, you know, have taught a bunch of coaches and then the coaches charge hundreds and hundreds of dollars and then they're running all these labs. And it's funny because I was talking to, you know, a friend in the space in sort of the wellness space.

And I was like, oh, well, you know, I think I'm going to start doing customizable formulas for people online. I really just miss it. Like, there's nothing I love more than writing a customizable formula. It's like, that's my poetry. It's, it's the, it's my heart space. So like, um, and she, she just looked at me and was like, but how could you possibly do that without doing lab tests?

And I was like, Uh, and I talked to the person, I could look at their tongue, like, I wish I could feel their pulses and like, be there with them, but like, I can fully do an intake without labs. Um, I would love to hear a little bit, like, how do you, where at this point, since you've sort of gone down the deep end with all the labs, where are you now in terms of doing some of the lab work in terms of, you know, So, you know, diagnostically, are you, how do you start looking at a patient and what are you using most frequently these days?

[00:06:53] **Mel:** Good question.

[00:06:53] **Chloe:** Good question.

[00:06:55] **Mel:** I know. I, I have a bit of a love hate with, with the labs. And so, yeah, just to give a little bit about, of my background, I originally trained in Chinese medicine and I got an MSC and then I quickly started realizing that nutrition was important for my patients and I knew just enough to be dangerous.

I, when I trained, I didn't train, um, my acupuncture training did not include herbs, which is actually more standard in the U. K., so in the U. S. it's more common that you would do both at the same time. And um, I really wanted to have an internal medicine aspect to my practice. And based on my own experience going to a Chinese medical herbalist, I decided that my internal medicine would be functional medicine.

Um, she was, she was lovely. She's well trained. She's very intelligent. And the treatment she gave me was kind of a mismatch for what was going on with me. And so I left with the idea that Chinese medicine has a lot to offer, but maybe that it wasn't up to the task of treating the complex modern person.

Right. That was at that time. And so when it came to adding internal medicine to my practice, and because I'm nerdy and because I'm interested and I want to know how things work and I like the biochemistry and quantification, I studied functional medicine. So I got a second MSc in functional medicine and then did a lot of additional training.

And the promise really was that if you ran the lab tests, you'd be able to see exactly what was wrong and what to do. And then you'd be able to fix people. That's, that's, and that's still the idea. It's, it's, it's, it's based on that certainty that basically if you collect enough data, then you will know the answer and then you'll know what to do.

What to do, folks. And, um, I'm here, you know, over a decade later to tell you that it, it, that doesn't happen anymore. Unfortunately, it would be nice. Humans are slightly more complex than that, huh? Yeah, it would turn out. That thought might be the case. Um, so here's where I've landed with it. So, so that spurred me to find better clinical models, you know, that I felt like Chinese medicine had a lot to offer, but it was missing something.

Functional medicine was like a very lovely decade long distraction, in some ways. Um, but it didn't understand the essence of what it was looking at. So it's really about. context and interpretation. And so that, uh, inspired me to really kind of tear apart my understanding and build it back up again from the beginning.

And that was a couple of years ago where I just, I kind of had to like raise the white flag and go, I give up what I'm doing. And it was interesting because I still, I had a lot of like, um, like professional encouragement. Like a lot of people wanted me to teach them functional medicine and I was helping patients.

Like I would get good feedback from patients, but in my heart of hearts, I knew that this was not. Right. And so I had to basically say, you know, I'm, I'm not a spring chicken, but I'm young enough to like really learn how to do this properly. And so I went back to the drawing board and that's when I retrained in Chinese medicine with Dr.

Ed Neal in, uh, Neijing medicine, which is completely life changing and I really recommend it to anyone. You do not need to be a clinician to do that training. It is beautiful. And, uh, I also learned, a more, like, complex systems approach to, uh, Chinese medicine and herbal medicine from especially, from various people, but especially, um, Jeremy Cornish over at the Damn Good Doctors Club.

I've heard

[00:10:21] **Chloe:** great things about Jeremy. I can't recommend him

[00:10:24] **Mel:** enough either and his way of looking at things. So he, you know, and then, and then also the other Uh, leg of the stool was studying

developmental neurology with Dr. Melillo, because basically, I was fortunate enough to have the perfect confluence of health problems myself, where any one of these things is like a completely paradigm shifting, mind bending, awesome upgrade of understanding, but none of them on their own was sufficient to help me or my patients.

So, um, blending them together is where it's been at. So in terms of your question about where labs fit in. I no longer need labs in order to help people get better. The main role that labs play, there's a few. One is that many patients are coming into my world or my practice having had labs done and they have a fair amount of stories around their markers and baggage.

And it's going to, I think it's. can be difficult. It depends on the timing and the person to help guide them towards something healthier and something more helpful if you can't demonstrate that you don't understand, that you understand that. I could say, forget about your cholesterol, let's do this. But if I don't demonstrate to them that I understand lipids really well, it's harder for them to feel safe.

But if I'm like, I understand lipids very well, here's a bit about lipids, now come over, this place is better, you know, that's one reason. It's really, It's not just like, it's patient communication, but it's really bridging where the person is, meeting them where they are to, they, they censor something better.

They want that, that's something better, but they want to make sure that it's safe, really, that you know what you're doing. So that's part of it. Another part of it is really just observing how things change over time. So I've just used the example of cholesterol lipids, who cares, like we can pick any, but like, all right, well, let's say that they're wonky.

All right. We know that they're wonky. And then that doesn't really go. So I'm not going to recommend, um, interventions or inputs or practices based on wonky lipids because that's just not how the system works. We're gonna go through a process, clinical process, we're gonna go in order, it's gonna be based more on first principles and then we can retest the lipids and just see what happens.

Um, there are always outliers, cases where maybe, you know, or the extreme cases, emergency cases, genetic cases, extreme cases where you do treat the lipids. I mean, there, there does exist, using this example, there does exist a, an actual genetic disorder where people do overproduce, uh, cholesterol. And that's a really great time for statins.

And that is life changing. It's just that that's like 0.000 percent of the time, right? Um, so that's another time is just to monitor, changes and that's how I use lab tests on myself and that's how I use it with patients.

The Role of Brain Hemispheres in Health

[00:13:07] **Mel:** And then this third area which has been interesting to kind of come to is that in this kind of, this is a little bit where the neurology comes in, is this increase in awareness of the different roles of the hemispheres and the two brain hemispheres in Health in perception, in development, in cognition, in embodiment, in spirituality, it's very interesting.

And when people are chronically ill, then they have to adapt in order to survive somehow. And the nervous system and the mind have different strategies for that. Some folks will tend to become super, super sensitive. Biologically paranoid. They, they notice everything, so their body's amplifying signals. So, just in case it's important, which just makes it very hard to function.

So that these people tend to be in a lot of pain, they tend to be derailed by electricity and very small amounts of mold and all these things. And so, um, they, they're, they have a hyper sensitivity. There's another group of people, not super uncommon, who their strategy is to, it was really just to disable the check engine light, so they do not feel their body.

So they may be very inflamed, and they may be very sick, but they don't actually notice it. I was one of those people, and it has its advantages. Because my labs were telling me that there was a big problem. There were plenty of times when my labs were like worse than any of my patients. I'm like, oh my gosh.

But I was, I was getting up every day and doing my thing. Not because I'm so awesome, but because I literally couldn't feel it. And. Um, I've had other patients in that category and, and in one case, um, it was a patient who, their first sign that they had any problems was a heart attack. Now, you're not going to tell me that they had a completely, like, uh, you know, healthy heart one day and then they had a heart attack.

They were having problems the whole time, but they were, excuse me, they weren't receiving those signals. So. I think labs and also wearable data are particularly important for that group of people because they're not feeling the subjective sense of feeling worse or better and that can be retrained and improved as they get healthier and they also need to feel that it's safe to do that,

you know, because like me, you know, I have patients who, uh, they don't feel their bodies, but that also enables them to keep working, you know, even though they're sick, right?

And so it's like, well, would you want to feel your body if it meant that you felt too much? It's sick to go to work. The answer might be no. But that's why they're not building their improvements. So in that case, quant quantification is very helpful. So that's sort of how I'm using it these days.

[00:15:42] **Chloe:** No, that makes sense.

And it's always, I mean, I'm sure you get this as a practitioner, it's always fascinating to meet those patients who are just completely unaware. of their bodies whatsoever. And you'll be like, okay, so how often do you poop? And they're like, I have no idea. And you're like, do you legitimately? I'm sure it said this on the podcast because it blows my mind.

Like, do you legitimately have no idea? Or are you just uncomfortable talking about this, which is totally fair. Uh, but it's, it's also interesting with Um, you know, I, I work a lot with kids with special needs. My son, Remy, has a rare genetic disorder, as I was telling you earlier. So Remy is very hyposensitive.

So most people are used to the paradigm of kids on the spectrum who are hypersensitive. So they're, you know, much more sensitive to sounds and, and, uh, textures and, and foods and whatnot. Remy eats bubbles like all day. Like the kid eats kimchi. Um, the louder you are, the more he thinks it's hysterical.

Like he is just so hyposensitive. He doesn't get sick very often, you know? So it all fits in very well with that. And I love that you have studied with Dr. Malelo, anybody who's listening. Also, I have an episode with him, Remy and I did some work with him a couple of years ago, and he's just an absolute gem.

Such a genuinely kind, intelligent, and innovative human. I'm really, really grateful for his work and I love that you're working with him. Um, one of the things through studying Remy and through learning so much about neurology, is just how, like, it seems so obvious to say that the brain is in charge of everything that we do.

But like, I don't think, I certainly didn't realize, like, how dramatically impactful it is on, you know, on your hormones, on your thyroid, on your immune system, you know, obviously on your gut. And so to me, I'm always obsessed with, like,

how do we optimize brain health, Um, because that's really going to impact every other aspect of it.

And even to the point, like for, for a long time, I was such a gut nerd. I was like, Oh, it's all about the gut, which of course we love, we love studying the gut and like optimizing it. It's super important. But again, as I see with Remy, he's got a perfect diet. You know, I'm a proper psycho mom, like that kid has been, you know, on an ideal diet his entire life and his gut is totally dysregulated.

It's not because of what he's eating, it's because his brain cannot regulate his GI system. Um, so I'd love to hear a little bit more how you got started with Dr. Malelo and what you're learning about the two hemispheres and how that's impacting the immune system because I think it's really important.

really interesting, and I think it's something that a lot of people don't understand the ramifications of in terms of long term health beyond childhood developmental issues.

[00:18:20] **Mel:** Mm hmm. Yeah. It's, it's funny, um, I found Dr. Melillo's work at a time when my own Brain health was very poor. So I don't remember the details.

I know that I was, like, stuck. Like, I, oh, gosh. So, I mean, this was a few years ago. And, you know, my brain was inflamed. I had no short term memory. I had no attention. I was, like, kind of in PTSD land. And I was, like, trying to, you know, fix myself. And I was like, trying to fix myself in a sense. Like I knew enough to know that most practitioners didn't quite know what they were doing.

So I wasn't going to just show up at a practitioner's office. So you ask for help. It needed to be like the right person. So at some point in that, I found his work and I don't recommend this to anyone that if you, if you have like new short term memory and no attention issues, I could, I could hardly read and, you know, my eyes weren't working very well and I was trying to help myself by studying developmental neuro and immunology.

That's wasn't the kindest thing to try to do to myself, but I was desperate, you know. Um, and so I do remember a few things from starting that training. This was like back in 2020. Um, one was learning about the role of the hemispheres in the immune system and that the left hemisphere amps up the immune system and increases it and increases inflammation and the right hemisphere calms it down.

And that was a very, um, like humbling moment for me in terms of recreating what I thought I understood because I really considered myself to be an expert in immune conditions. You know, and fairly so, you know, I, I had overcome my own autoimmune conditions. I had done lots of extra training. I'd been treating them for a long time.

I got decent results. So that was all fine. But how could I not have known something so basic. I mean, that's not a detail. That's not a small detail. If you don't know that, you don't understand what you're looking at, right? So when I say that, I say that with respect. You know, if you're listening, I'm not criticizing you.

I'm talking about myself four years ago, you know? And so this is not, yeah, not a small problem and everything's is downstream of that. So, uh, same thing with hormones. Like you have endocrine experts and hormone experts who don't understand how the brain works, but it's all happening downstream of the brain.

So one of the tests that was very common for functional medicine practitioners to run is a Dutch test and that's a hormone test. Well, to me, that's a nervous system test and a mitochondrial test, but you won't see those words anywhere on the exam. And you won't hear, uh, the folks at Precision Analytical, you know, I don't think, at least I've not come across it.

Discussing those things and they're very smart and I have respect for them, but this is not a small problem. Like this is, if you don't understand where the basic pieces fit together, you don't understand what you're looking at, so then you're going to run a hormone test and start giving, pregnenolone and DHEA and, uh, adaptogens and all this stuff.

Um, not understanding that the basic system that's upstream is, is walking. So, uh, yeah, so I, I, I stumbled across it with Dr. Melilla's work at a time when I needed it most. Um, and then I ended up. Doing his, uh, most recent, yeah, I'm in the process of doing his most recent, um, fellowship. I'm going to be back there, uh, this weekend.

Um, I also bring my daughter to see him. I'm also a patient of his and I've benefited a lot under his care.

[00:21:41] **Chloe:** Yeah, I gotta love the adult diagnosis of, uh, I mean, self diagnosis of ADD. But then in hindsight, I look back and I'm like, Okay, I played soccer very competitively my entire life. So heading the soccer ball all

day, you know, like I, Snowboarder definitely got a, a handful of concussions in there.

So it's funny as you learn about it and you're just like,

[00:22:03] **Mel:** uh,

[00:22:04] **Chloe:** yeah.

[00:22:05] **Mel:** Well, there's another relationship there, which is very interesting. We talked a little bit about hyper and hypo feelers. So folks who have ADHD, um, most of those patterns, cause it's a pattern, right? Most patterns are associated with a, um, relatively overdeveloped left hemisphere and a relatively underdeveloped right hemisphere, which makes sense if you understand how the brain works, because four of the five types of attention live in the right hemisphere.

prefrontal cortex. And then there's, uh, another pattern that's more like a daydreaming, absent type ADD that's um, more of a right hemisphere dominance. Well, our sense of embodiment and feeling is in the right hemisphere. So there's actually a correlation between kids who don't feel pain as well and don't feel fear as well, more likely to hit their heads.

That was me. Like, I had lots of head injuries, but they was re related to the uneven development where I wasn't, I didn't have appropriate fear for things and I was always smashing my head against things and not really caring. And so that's part of it too and I, and I see that with my patients, you know, where you take the history and you're like, Oh, this must be a concussion thing.

But if you take it further and, uh, you know, one patient who's like, Yeah, I, you know, I, I fell off of, I fell out of a tree, you know, and it's like, well, tell me about that. And it's like, yeah, because he was being an idiot up in a tree because he doesn't have a perfectly developed right hemisphere, um, or that he's outside in the cold all the time.

And that's a common thing. I was always wearing shorts in the winter because I couldn't feel the cold. So that's related to the concussion history. So it becomes really interesting because you can start to see. How these things fit together. Um, For me, when my system crashed again as an adult, that's when I realized that I, like, I didn't have a diagnosis of ADHD as a kid, but I don't know how that's even possible.

You know, they, my teachers, I was, unfortunately, I was at a small school, and it's probably because I was a, um, a girl, not a boy. I wasn't destructive. They let me wander the halls. I mean, I literally, I was, if I was sad, I was tapping my, I mean, nowadays, you can bring your dogs to school. You can bring your fidgets.

things to school. I mean, I didn't have any of that in the 1980s and 90s. So it's not like a, um, it's not, it's not like a kind of theoretical diagnosis. It's very clear that that's what I was experiencing, but it's also been exciting as an adult really using accurate frameworks to correct the imbalances that were leading to that.

[00:24:17] **Chloe:** Yeah, I, um, I just think it's so amazing how many different things we can impact by supporting brain health and how many ways we are absolutely demolishing brain health with the additional chemicals that we're eating and putting in our clothes and, you know, screen time and, you know, disconnect from other humans.

Um, One of the things that I've talked about a couple of times on the podcast, I want to introduce you also to the Family Hope Center because you'll love them also. It's more developmental and I know you work more with adults, but they have a fascinating program also that I think you'll enjoy. But, um, so I've had Matt Newell on here talking about retained reflexes and Malelo touched on it a little bit also.

But again, I think it's really important for adults because a lot of what I'm trying to advocate for on the podcast is like a, you know, as, as adults, as parents in particular, like, I can't take care of myself, I don't take care of myself. And that was a really hard learned lesson after burning myself out.

So I'm like, okay, I've got to make sure that I'm doing really well, and I also have learned that I have some significant adverse patterning in my brains and Trump, you know, like all these different things that we're unpacking. So I think that the retained reflexes are super interesting. I also think that, There's so much of this that relates to adult illness that we're not really tapped into as a society.

So I'd love for you to talk about routine reflexes and how they're impacting like the nervous system development and, you know, long term health. We've touched on it a bit with the immune system, but

Primitive Reflexes and Their Impact on Health

[00:25:57] **Mel:** yeah, I love this question because I'm definitely on a mission to raise awareness of this because this is such low hanging fruit.

So primitive reflexes are these movement patterns that we are born with. that allow us to do things when our brain is immature. So they mainly develop in utero, uh, when, you know, before we're born. And then they, uh, kind of come out and get integrated in this really finely tuned timing of sequence. And it's related to milestones.

So as you learn how to do new things and other things recede, uh, so it's very beautiful. Like the orchestra of your life unfolding and they, for the most part, all of them should be integrated really by six months of age. There's maybe one that's about 12 months of age, but really by the time you're like kind of through your, you know, midway through your first year, they should be gone.

And they're still there. They're still in the brainstem. The development of the higher levels of the brain is coming down and inhibiting them. And then they can be used as part of a repertoire for more sophisticated and advanced movements. So a lot of professional athletes or athletes, like they're, they're using these things, um, you know, more skillfully, right?

So maybe like a musician, like learns the basics and then they're going to play with the basics and do really cool stuff. So, A few things. So one is that if we test someone who's older than a year old, and those reflexes are still present, that isn't, that's never normal. Like, that's just not a normal thing.

And it's an objective thing. And so for most people, the brain might seem like a black box that we don't, you know, they kind of know it's here somewhere, but they don't know enough about its interface with it. But if we do these, Uh, tests, we can really clearly see, uh, objective signs of brain immaturity, or the other possibility is brain damage, or, uh, like neural degeneration.

So here's my thing. This is a non invasive test. It takes 10 minutes, less than 10 minutes to do, you know. And if you get tested accurately and there's no findings, then congratulations, like go, go enjoy yourself. Like, you know, but that's like eight minutes of your life, you know. However, for so many people, this is going to be the bottleneck for their health.

And it's also going to explain. So many things about their life, depending on their, their pattern. And also, best part is, is that we can, uh, do stuff. We can, we can address these results, right? I don't, I don't test for things that you can't do anything about, you know? So in this case, you can. Drive specific targeted

stimulation to the areas that are underdeveloped to get them to develop and then see how you're doing, then see where you're at.

And this, you know, it's not to say that this is going to be the solution to all of your problems, it's just, it's a first things first, it's a prerequisite. Finishing infant brain development, I'm talking to an adult here, right? Finishing your infant brain development is a prerequisite for everything else you're trying to do to improve your health and manage your life, you know, and it was funny when I, uh, saw Dr.

Melillo, and then I'm trying to implement. The program, which, you know, is involved, and I was often feeling very overwhelmed, and a lot of that is because of my neural circuitry, right? Um, trying to organize and prioritize when I can't feel my body very well. It's very hard to make decisions if you're not embodied.

And I'd look at my to do list and go, oh my gosh, I have to do this and that and that and that, and I'm like, Well, surely the first things first is that before I respond to that email and pay that bill and get back to that patient, I need to complete my infantile neurological development. That's, that's the first thing that needs to happen today, right?

So that was kind of how I managed to get myself to prioritize it. Um, but that's, this is it. So this affects you cognitively, emotionally, definitely, um, attention. these higher abilities, you know, including compassion, executive function, and then also health. So I work mainly with adults with complex chronic illness, like chronic fatigue and fibromyalgia, autoimmunity, you know, chronic infections, all of these things.

And, you know, they're in the literature, there's a strong relationship between adverse childhood events and health problems as an adult, but now. through the lens of developmental neurology.

Understanding Brain Development

[00:30:17] **Mel:** We can be way more specific about what the, what the details are behind that relationship.

[00:30:23] **Chloe:** I love that you're going down this rabbit hole so deeply because it really is so important for people to understand.

One thing I think we just want to make sure that everybody understands that the brain does develop from the bottom up. So as you're saying, you know, if we

don't deal with these permanent reflexes, those are in the brainstem, typically. And then the brain cannot process and grow and develop fully unless you actually get that foundational level done.

And this is something I've seen with so many kids. Obviously, I work more with kids and, like, you know, have a lot of friends with children with special needs and something I've seen with Remy. And I also like telling the story of, like, my dad had a major heart surgery a couple years ago, and then guess what?

His startle reflex came right back, and I was like, uh, can we integrate that? And he just looked at me like I was crazy. So, you know, it is what it is. But, like, you know, I do, I do think brain health is the foundation of all of it. I also think it's, you know, Remy had no reflexes, pretty much. And we had a 72, like, he was induced.

72 hour labor ending with the c section because he was not moving down the birth canal. And so, you know, it's just, it's always that hindsight. As you learn it, it's pretty fascinating to dive into. Um, so as, um, let's see, where do I want to go from here?

Exploring Chinese Medicine and Neurology

[00:31:44] **Chloe:** One thing I'm curious about, I just wrote down a note, um, as you're nerding out on all the neuro patterns that you're seeing, and this might be too nerdy for most of our, our listeners, but I'm curious how you're seeing that overlay with the Chinese medical diagnoses that you're seeing, like different types of ADD, like as you're discussing, like, sounds very much like spleen sheath deficiency.

Like, are you finding, are you playing with that overlap a lot? Is, is that something that you're, you're exploring a little bit or? Yes.

[00:32:17] **Mel:** It is something I'm exploring. Because I'm studying the, the roots of denascing with Dr. Ed Mill, it's a, it's really much again rewritten my understanding of Chinese medicine and in many ways it's different, a little bit different than TCM, which was my original training and you know, and it's based on that.

Translating the original text in my original, uh, education, which was, you know, I look back on very fondly. It was a very nice experience, but we didn't, I never read any part of the classics and all of Chinese medicine is based on the

Neijing. So I didn't know what was in there. I didn't, you know, and this is a, a wider problem in our profession.

Like especially if you go to any online forum, someone asks a question, you can get like any kind of answer, but there's no real requirement for any proper justification for the answer. It can just really be like, my teacher said so, or based on this lineage. And so you get like, just all sorts of conflicting things.

And then there's this idea like, well, you know, the more perspectives, the merrier. And if we can bring a little more rigor and a little more deeper understanding to it, it can be helpful. So for me, the understanding that I have of patterns of the universe and how Nature works is the big map of my understanding.

It's like the major metaphysics or schema that I place everything on. So if I'm learning developmental neurology, then I'm thinking about that in terms of nashing medicine and nashing science. And actually just as a little bit of a segue, a lot of practitioners want to understand how to explain Chinese medicine in terms of biochemistry and reduction of science.

And I think that there's an argument for that in terms of communication. If you're speaking as like a language, you want to explain to a patient what you're doing with liver three in terms of serotonin, like knock yourself out. But the appropriate relationship is actually to explain how biochemistry and reductionist physiology fits into it.

And that, uh, an understanding of the universe that's based on both like non physical and physical phenomenon, which is much more aligned with how, with physics and how physics understands things. And actually if you study physics, you see how many decades behind medicine is really in terms of what humans know about how things work and then what is being practiced on people.

It's very, um, very breathtaking. So when I look at developmental neurology. I'm, I don't know how much detail you want me to go into in terms of my understanding of like, how it applies to, uh, my understanding from the Neijing, but I'm placing it into that map of how do living things develop and how do they, I don't know, how do they form and what's the patterns.

that all living things follow, and then we can see where the developmental neurology fits within that. And now, um, because I've been teaching this a little bit with my, with the, the Neijing, um, folks at the Apricot Grove, that's now

part of the exam. where it's like a first things first, but before you treat a patient, it's called preparing the ground, right?

Like, what's the first things for, what are the things that might be present here that might block our treatment for working? So for example, someone has like tennis elbow, I can, we can treat, but if their spine's out of whack, that's going to block the treatment from working because that's more upstream.

Or if someone has like a big old scar, then that might block our treatment from working. But now we're looking at the, the, the, Neurological developments and saying, well, you know, look, um, that's the first things first. That's like the, you know, the earlier in, in the, the development. So that's how I'm thinking about combining them, which is how I approach any new area.

[00:36:16] **Chloe:** Interesting.

Heart Rate Variability and Health

[00:36:16] **Chloe:** And I've heard you talk about, um, interplaying menaging and some learnings with HRV. I'm curious to learn more about that because I haven't gotten to listen to your lecture on it. But, um, if you could give our listeners a little, I haven't talked about HRV or polydegal theory. Um, on the podcast, yeah.

And those are both things that I enjoy nerding out on and I love your perspective on them. So I'd be curious if you could give like an overview of what HRV is and sort of how you're seeing that interweave with your studies. So heart rate

[00:36:50] **Mel:** variability. So when our beats, we think of our heart rate in terms of beats per minute, but there's actually a little bit of variation.

So let's say we have our heart's beating at 60 beats per minute is, is, it's not going to be like a metronome. It's going to be a little bit, you know, sometimes it's going to be a little bit faster than that, and sometimes it's going to be a little slower than that. And what we understand is that actually having that variation is a sign of health and nervousness or resilience.

Then it's actually down to a specific aspect of it, which is that when you inhale, your heart rate should go up. And when you exhale, Your heart rate should go down and when this is happening, there's good coherence in your nervous

system like the respiratory centers of your nervous system between breathing and heartbeat and that's a sign of all the good things.

Um, And when it's lower and more metronome like, that's more associated with like a sympathetic stress physiology. So, more and more people, uh, are measuring their heart rate variability, either intentionally because they've heard about it on the podcast and they want to go measure it, or they have like an Apple Watch or a Whoop or an Oura Ring or whatever it is, and it's telling them their heart rate variability.

And now they're like, well, what's that? Like, is this, was my number good? What was this about? And for me, um, Back when my system was not functioning well at all, and I was very detached from all that. So I'm like, Oh, I'm fine. My heart rate variability was like very, very low. And so I was like, Oh, that's not a good sign.

Um, so I got very interested in learning about it. But what I discovered fairly quickly is that all of the resources available online that were describing how this works were missing important context, which is kind of the theme here. It's like people don't understand the first principles. So they're saying things that are partially true.

Which means that they're sometimes not true. And so in this case, um, the reason why this ties to polyvagal theory is that we have a nerve called the vagus nerve, which is the longest nerve in the body. It's getting increasing attention and love because it attaches our brain to all of our internal organs, except for the spleen.

Um, and, um, And so, it has this two way connection, but especially going from the organs up to the brain is how we know how we're doing, essentially. And so, when that integration is good, then we're healthier and then we feel well and this is, it explains probably why if we get stressed, we might get IBS and, and things like this.

But, um, There was a, well there is, a researcher, a doctor named Steven Porges, and in the 1960s he was, uh, researching heart rate variability and he was in a neonatal intensive care unit. And at that time they were monitoring heart rate variability on the, on the patients. the infants, um, as probably to make sure, you know, to kind of see, or like, early warning signs of things going in a, a potentially dangerous direction.

And what he noticed was that heart rate variability, as it dropped, like it might, it might drop showing a problem, but at a certain point, the heart rate The heart rate, how fast the heart rate might drop dangerously low and the heart rate variability was going up, which is the opposite of what you would expect.

And so he was saying, wait a minute, that doesn't make any sense. Heart rate variability is associated with health and yet in these, uh, sick newborns, when their heart rate is getting dangerously low, their heart rate variability is going up. What's that about? And he called this the vagal paradox. And the way he, uh, figured out.

What was going on is that the vagus nerve has two beginning points in the brain stem and then they come together into the nerve and then they come to the body. So there's an older, like an evolutionarily older one and a developmental, it's developmentally older as well and an evolutionarily newer one.

And so when Having higher heart rate variability is associated with being like calm and connected and happy and like all the positive things of being relaxed and present and slowing down. But we can also slow down as an emergency response to life threat. So there's like a bit of a curve here. We're relaxed and then there's like danger.

Now our heart rate might go up and then we might decide if we're going to run away or fight or like freeze or whatever. But if we're like really screwed, And then, you know, where it's like things are really, really dire, as a last ditch effort, everything might slow way down. The break goes way down, and that's the more ancient vagus nerve that's doing a survival response and that was associated with higher heart rate variability.

So what I was discovering in uh, myself and my patients was that this, this explanation that you will read everywhere on the internet about like higher is better for heart rate variability and lower is worse. And when you're more relaxed, this happens is missing important context because for a lot of my patients, when they get stressed, their heart rate variability goes up because they're going into a shutdown.

Um, so that's not applying to everyone, but it's applying to enough people that you know, we just want to understand what we're looking at. And so that's, um, that's that connection there. But we can also, uh, connect this to, uh, the how, you know, this is a big part of how We connect to our environment and to the greater world and to the universe and then we connect down to ourselves.

So our heart is integrating signals and rhythms from, you know, like what time of year it is and where we are geographically and seasonal rhythms and time of day and all of those things. And then. Uh, it's kind of bringing it in and then orchestrating what's going on in our physiology, a lot of that through the vagus nerve.

If we, uh, get sick or stressed or threatened, then at the cellular level, we have an evolutionarily conserved response that all cells go through a three step process. In order to address a threat, uh, repair damage and reintegrate with the network. And this is, uh, this is called the cell danger response, which is, um, a term coined by Bob Navio.

I call it the cell healing cycle. Um, and so basically as part of that, So this, this is cells that are, like, part of you and part of me and, like, part of this network. In order to heal, they actually become autonomous, or he says, like, they have cellular autism. They become separate, and they have to become separate in order to run this program to heal.

So, When we get sick, our vagus nerve intentionally, uh, reduces tone. It becomes less active. We become less integrated so that we can run these less, like, wait, if you have a fever, you're not going to be doing, it's going to be hard for you to do your taxes. Right. These like higher cognitive functions go offline, you know, when you're just like, ah, I'm going to lie down because that's all I can do.

That's all I'm good for. Right. So you become. more primitive, you become more simple, right? And your vagal tone goes down. And so this is why the literature shows that, um, higher heart, higher healthy heart rate variability is associated with better outcomes in every area and that lower heart rate variability is associated with ill health.

And part of that is because when we are sick, we intentionally reduce our vagal tone in order to heal. And if that gets stuck and it doesn't complete, then we're chronically ill. Um, but it doesn't necessarily follow that just stimulating the vagus nerve is how to get better because if you have an infection, then you, you need inflammation in order to get better.

Challenges in Modern Healthcare

[00:44:35] **Chloe:** One of the things that I've seen you say is that you would rather have 12 good Chinese herbal formulas than a whole stack of supplements. Why? Why would that be?

[00:44:47] **Mel:** Yeah, it's true. It's true. This is, again, part of my, you know, My, like, deeply humbling, you know, experience where, you know, as I said, I got my master's degree in functional medicine.

I did a lot of additional training and even in those additional trainings, I was constantly going down PubMed and, um, doing additional courses to really understand the biochemistry. And honestly, as well, like, my teachers were all excellent teachers were a little bit too easy to stump with my questions and I wasn't asking them to stump them or to be a smart ass.

It was like, cause I was trying to solve problems. And it was clear that they didn't understand. Essence of it, but that's not their fault. It's because you can't understand the essence of it because it's not, for a principal's level, it's un, it's un understandable, really, at that level. Um, and when I kind of had this very humbling, kind of, it wasn't a moment, it was like over a year where I was like, I don't know anything.

I just need to, I just need to start over you know, which is hard, you know, um, but totally worth it. And I started using, uh, you know, certain formulas based on a very pragmatic approach to herbs. So I didn't go back and get a degree in herbs. I studied herbs from, um, a number of people who had studied with a doctor in China named Jin Zhao, who has a very, um, just, you know, kind of very prolific practice.

He, you know, treats like 150 to 200 patients a day. And he basically had found, um, Ways that Chinese herbs have been practiced at a time in history that was similar to this time, where the diet was similar and the lifestyle was similar and the patterns are similar. And he used very clean algorithmic thinking to figure out very quickly how to use certain formulas that were very high leverage to both help a lot of people and also how to very accurately interpret feedback so that if you use it a certain way and then based on what happens you know what the next move is.

So this is someone who's you know it's uh like I was like something like seventh generation doctor he's seeing all these people he's getting excellent results he has like a line sneaking out of his practice but it's really a different way of thinking about it. Rather you have like you know, your typical complex chronic patient who has like all of the things going on.

They've got digestive issues and mood issues and rashes and like leaky gut and all these like diagnosis. They have all these things going on. And really, whether you're a Chinese medicine herbalist or a functional medicine practitioner, like

where are you going to start with them? And it's like, The answer to that is, like I'm telling you, you can, I'm always open for debate, but it's kind of arbitrary.

So, if you're a functional medicine practitioner, it's going to be based usually on your most recent seminar. So, you might start with the gut or the thyroid. Or the brain, or the hormones, or the mold, or whatever it is. But if you get a group of functional medicine practitioners around a table, they're all going to start somewhere different.

And it's going to be based on the new and shiny. I'm just, I'm calling it like I see it because this was me a few years ago. A thousand

[00:47:58] **Chloe:** percent. No, I've, I've been guilty and I see it

[00:48:00] **Mel:** all as police. Yeah. I've been very, very guilty. Okay. And so this is where I'm coming from. If you are a Chinese medicine practitioner, and again, you know, listen, people are doing excellent work and they're continually, you know, doing new training, so I don't want to paint people in a certain brush, but at least the way people are trained is really to try to find the pattern or try to find the patterns.

And then match the formula or formulas or whatever you're doing to the person you see in front of you. And that seems like it should be a good thing to do, but it's hard because what you're getting is such a mix of different times and different mechanisms and different layers, and it's all presenting it to you at the same time.

And if you're, You're putting something together based on that. Again, it can be hard to really know how to iterate. You know, you can, you can maybe, oh, all right, well, let's dial down this herb and dial up this herb. I mean, you can try it, but it's still, um, it's still tricky. And that, that's a little bit what I fell foul of.

When I went to see, uh, the Herbalist back when I had dysentery before I even trained. You know, really well trained, really excellent woman, really like her. Um, she, but she, I, and I remember what formula she used on me and now I understand that it was really, unfortunately, I understand why it was the wrong formula even though she wasn't being a dummy by recommending it.

Um, and so in this way of, uh, of treating where you're using very clean, systematic thinking to take people through a process. You're really working with the reality of the complexity of all the different things that people have going

on. And you're approaching it in an order that makes sense. And you're, uh, it's still individualized, but the process isn't.

Just like if you were going to renovate a house, like your, your general contractor should really go through a process that's kind of the same for all houses. And through going through that process, process, they're going to find what you need to do with your house, if that makes sense, you know? So like, do we need to fix the roof?

If it's like the roof is like falling apart, then yes, let's start with fixing the roof. Oh, no, your roof is intact. Great. We're not going to fix the roof. We're going to go on to the next thing. It's a bit like that. Um, so that's how, that's how I'm working with it now.

[00:50:17] **Chloe:** That's super interesting.

Making Healthcare Accessible

[00:50:18] **Chloe:** I, um, yeah, that is one of the things that's always fascinating to me as a practitioner is the question of like, where do we start when people have these very layered health issues that are going on?

And one of the things that I've been very adamant about recently is like, I'm very frustrated with the clear failure of the Western medical system. Again, you know, like I always like to point out that like Western doctors, I have no doubt are in there for the right reasons. But the system is clearly failing us.

It's the third leading cause of death in America. So, like, we can't really argue that it's doing so, so very

[00:50:52] **Mel:** well. Well, let me ask you a question to reframe it. So, any system is optimized for a certain output. So, what is the output that the medical system is optimized for? Uh, keeping people sick? Right. So, within that.

To what end? Uh, to make money. Right, so is it failing? Not for them,

[00:51:15] **Chloe:** but for us. No, the system is

[00:51:17] **Mel:** working perfectly. It is. The system is working perfectly for the outcomes that it is optimized for. Anyways.

[00:51:24] **Chloe:** I always get a kick out of people who will be like, well, you're just trying to make money off of your herb company.

And I'm trying to pay my rent. Like, I'm not, like, like I give herbs away. I do a tremendous amount of free stuff. Uh, but, but, but so to me, like one of my big problems with Chinese medicine, alternative medicine, functional medicine, it's so we have this Western medical system that clearly is that serving anybody who's trying to get healthy?

Um, and, you know, obviously, again, I don't blame the doctors, I blame their training, which is paid by pharma and like all of the systems that they're within. I would not want to be in that system. I'm so grateful that I get to treat patients the way I want to treat patients and spend the time with them that I think is necessary.

Um, but the alternative medical system, um, and the wellness industry is really just focused at like the 1 percent who can afford it. Um, and have the time to be able to go, you know, like if you're, if you're getting acupuncture, you need to get acupuncture fairly regularly. It's expensive. It takes time.

It's not even something that I, as a doctor of Chinese medicine, actually fucking do regularly. So like, it's not really opt like nobody's really speaking to like the 98 percent of our society. So that's one of the things that I've been trying to figure out is like, How can we, you know, be on the basics of like, okay, we've got to clean up your diet.

You got to get out and walk, you know, like, which, which 90 percent of people do need to just focus on fucking basics, like get some sleep, get some fresh air, get some movement, eat actual real food, reduce toxins, sweat a little, you know, like those are all like the, the basics. But how can we help take the The, the majority of our population and helps start giving them the, the roadmap to building health without, you know, charging them a tremendous amount of money and how, like, can that be systematized?

So I think it's interesting that that's sort of part of what you're doing. I'm not saying that we should do it without practitioners, but just trying to like, in my head, I'm just trying to find a way. that we can make these things more accessible to more people?

[00:53:34] **Mel:** These, I mean, these are really good questions.

I think, you know, first is that we, we want to, you know, go, always going back to first principles, making sure that we've understood problems accurately and correctly, because if you're trying to solve the wrong thing, it's, you're kind of, um, dead in the water. I think with, there's a number of ways I, I think about it.

Point one is that when we talk about anything that's very new, like, Dr. Melilla's, um, approach to developmental neurology. When you're at the bleeding edge, things, it's usually before they scale. So I see that as just a normal part of any development curve. So there's, there can sometimes be like, oh, well, it's great if you can afford it.

Yeah, no, listen, we're like, we need to get there. Um, that's an important thing that everyone needs to be able to access it. But before everyone can access a thing, it needs to be developed first. It's the same thing with technology. It's the same thing with the car. I don't even see that really as like an evil.

It really is just how, it's a, it's a, it's a natural pattern, you know, once there's enough people interested in it and doing it, the costs go down and the availability comes up. So, um, you know, and, and then if you, if you aren't an early adopter, then you're not guinea pigged. So there's like an advantage.

But. So, so, you know, one thing I'd like to see, like, for example, everyone having, uh, a primitive reflex exam. That's something that we're, you know, I want to increase awareness, but it also is, it can be accessible in the sense that it's non invasive. It doesn't require a blood test. Um, I've taught this to people on other sides of the world and had their non medical partners do this.

So it's, it's something that, Can be done and hopefully can be scaled. So we're seeing, as we're understanding, uh, like more that this is an important thing to do. We're seeing that scale a little bit more. I think with something like. I mean, this is my own perspective on this, is that, um,

from a health economics perspective, in order for acupuncture to make sense on paper, it needs to be done in a community setting. I'm saying this as someone who does not have a community clinic, so I'm not saying, it's just like, Mel thinks this, it's like, I have a one to one clinic, but I'm just saying that if you want it to make sense from an economics standpoint, that it needs to be done in a multi bed setting.

I mean, um, there's a really great clinic that's about an hour and a half from me here. It is in a very working class area, it's a very busy clinic, it is very

affordable, these are not like, these are not fancy people, but they can afford to go three times a week if they need to. And they're going because it helps them.

So in order to make it, so we need to understand the model that it's never going to be accessible for most people to do like a one time, but acupuncture was never, It wasn't designed, that wasn't the context in which it developed. It was, it was a one to many mob, um, and that was one of the ways that it worked.

So, like, teething those things out, um, and then, I don't know, I, I think it's, it's tricky. These, like, these are the, the harder questions because if you, it's not just that the healthcare system is, if the environment itself is unhealthy, then it's, you, you, in order to try to be healthy in an unhealthy environment, you, by definition, are expending an incredible amount of time.

increase in energy. And I think it's kind of unrealistic to expect most people to do that, especially if they're not in a particularly advantaged situation. So then it really becomes about trying to make the environment healthier. And those are, Stick your questions again, you know. I mean, and by healthier, I mean, I guess I mean environmental pollution and all of those things.

But even like in the United States where we don't have a statutory maternal leave, where it's, you know, by law puppies are required to stay with their dog, with their, their moms longer than adults. American babies, um, and the effect that that has on development and the effect that that has on societal costs, you know, but there's like a million examples like that, that, so for me, um, excuse me, like, I'm, I'm more, if I, if I'm working at that level, I'm more interested in helping to change those.

things then to figure out how everyone can get like one to one acupuncture or something like that.

[00:58:03] **Chloe:** Yeah, no, I think that's interesting. Yeah. I think for me, it's just, it's just this constant questioning of like, you know, how can I be of service and make. These things more accessible and help people feel empowered to start taking control of their health.

Like I love nerding out on all of this, but for whatever bizarre twist of my path, like this is like advocacy for health and like trying to spread awareness and like trying to learn more and, and share what I'm learning and the brilliant people that I'm fortunate enough to like connect with and get to learn from with other people.

Um, is something that I play with a lot and I just, you know, it's, it's devastating watching the demise of the health of our society and particularly the health of our children. I mean, it's just so hard to, you know, and clearly I'm not, like, I know that the answers are so complex, but it's one of those things that I'm just constantly trying to look at because I'm like, You know, A, the, the, the demise of our children's health, like 54 percent of children now have a chronic health disorder, and that was from a statistic from a research study like five years ago, so I'm sure it's higher than that, you know, the neurodevelopmental disorders are skyrocketing.

I'm of the belief that, you know, these rare genetic disorders like Remy has are elevating dramatically also, but the research won't show that until there's enough of the genetic diseases. Um, being diagnosed because like, Rennie's disorder wasn't even a disorder that was known about 10 years ago, so like, how can we compare that data to previous?

Um, I just, you know, I, again, I live in the world, weird world of biohacking and, and trying to do these things sometimes and it's hard for me to understand the like, Um, the fixation on longevity and anti aging when I'm like, we're looking at the demolition of our society in our children. And like, we've got to start finding a better path forward.

And I think that like all the synthesis that you're doing is a beautiful perspective on all of it. And I think it really brings it together in a wonderful way.

[01:00:08] **Mel:** That's, I mean, that's a cool, an important application of it. I mean, definitely, Dr. Neal talks about how, if you really want to change things, you don't focus on the details.

You need to change the entire story. So a lot of his work is really about creating a healthier story. And that story is, needs to be based on nature and how, And I think that that, there will be something in that that's key that both helps our children and helps make solutions more accessible and also helps, like, for me, I think a big problem is like just the massive levels of confusion that people have about the most basic things.

And there's been, I would say, you know, a deliberate, assault on comedy sense and on just having a perspective that everything, you know, if you don't have seven PhDs and you're not allowed to have an opinion, so you just need to like, listen to whoever. Um, and then also very well intentioned people, especially people who like, come into my world who, have, you know, attended all of the

health summits and, like, listened to all the podcasts and they're no less confused.

They just have, like, more specifics to go with it. And so going back to nature, which may sound fluffier, fairer, woo, that's, Dr. Neal would say, go back to nature. That's sort of what I mean about, by first principles, is understanding how reality works at its core. And really that might sound highfalutin, but we're just talking about the basic, basic things.

Like the sun rises in the east and then it goes up and then it sets in the west. And there will probably be like some asshole who wants to disagree with that, but I think for the most part, if we can reclaim those basic truths that do not change over time, that you can see with your own eyes and with your feet on the ground and start there as a starting point, then we can, we can then move forward in a healthier direction.

[01:02:06] **Chloe:** I love that. Um, and I think it's so accurate and it is one of those things where even I like get caught in the weeds of like, okay, like, how do we optimize each of these things? And it is one of those things where it's like, you always have to try and bring it back to being centered and grounded and like tapped in to nature and what's going on.

Vestibular System and Health

[01:02:26] **Chloe:** So you've fully convinced me to take Dr. Ed's class and, um, again, I, you know, I, I, I Well, I'm gonna ask you one more question actually just for my curiosity and then I'll let you go But I'm just curious what you're darting out on right now Like what's what's sort of catching your attention the most right now because it seems like you have the type of mind that's really fascinating.

Oh gosh, I love it when people ask me

[01:02:52] **Mel:** that

[01:02:53] **Chloe:** question because,

[01:02:54] **Mel:** um, so right now, and that's in the last, like, you know, few days, I'm focused on the vestibular system. Um, yeah, so, uh, in the last module, uh, that I studied with Dr. Melillo, they have a, a guy who is a, uh, an expert in the vestibular system from Australia, Dr.

Carlo Renato, who flies over from Australia for a couple of days and then flies back. And really, he's kind of, uh, he studies the development of the nervous system from the perspective of the vestibular system. And I'm realizing, um, that I, that you know, I've integrated my reflexes now and that I have vestibular issues and um, I also can see that my patients have vestibular issues.

I'm seeing different clues. And again, these are a lot of things that I'm, are like things that I'm like discovering, but again, it's based on like, again, these first principles where I'm kind of have a good sense that I'm onto something. So for example, I mentioned before that my heart rate variability was extremely low.

Now, no matter what I've done, it's been hard to get it up. But the truth is, is that it's actually higher in the day now. So, um, what I, when I track it or wear it, it's actually kind of nice and I'm feeling a lot better. But when I'm asleep, it's still low. But I'm realizing for a variety of reasons that I have like an underactive vestibular system.

So that when I don't have gravity as an input, it's, affecting how my nervous system is functioning. Oh, that's so interesting. Um, so that's my hypothesis, which I will test by, um, you know, make, getting a proper vestibular assessment and then integrating it and see if anything changes, you know. So again, we're just, we're, we're trying it out, but I know that I have, um, you know, eye focus issues and things like that.

So, um, so that's been very interesting. Cause I also, Oh, there's a lot of things from it. So one is that the, uh, the, the labyrinth of the ear and the, the, the, uh, vestibule of the ear are the first parts of the nervous system to develop in utero, but they actually reach adult size development in utero.

There's no other part of the body that does that. That's wild. So it's like we are developing and growing out of our sense of where we are on Earth, right? And this is detecting gravity. Um, this ties in things like non native EMFs because it's interfering with the signals that allow us to know where we are.

And then the Earth itself, its magnetic, um, strength is reducing over the last couple of years. So there's like all of these different things. But anyways, that's what I'm nerding out on.

[01:05:23] **Chloe:** Oh my god, that's so much fun. Yeah, I did. I did a deep dive on vestibular integration back when Rem was younger because he was like a swing addict.

Like he, you know, like it's again, very hyposensitive and then Malalo had us spinning him and then his eyes would do the bounce back. So, yeah, oh, this is so much fun.

Conclusion and Final Thoughts

[01:05:45] **Chloe:** Um, okay, well, I'm going to call it for today, but, um, truly, I am so grateful for the work that you're doing. I'm really grateful for your time and wisdom.

I love your humility and brilliance. They're a beautiful juxtaposition, and it is really fun to get to pick your brain. Um, so I would definitely, uh, love to have you back in the future, and if ever there's anything, I That's all I can do to support your work. Just say the word.

[01:06:12] **Mel:** I really appreciate it. It's been really fun chatting with you.