## Podcast Introduction and Episode Theme

When people think about diseases, they think that the disease is the issue, then it's their body. The disease, is just what we name what's happening in your body, generic advice is generic.

And you really have to hone in, learn how to listen to your own body how, to really sense it going on. And be willing to, sometimes, if you are having problems, spend the money on doing that testing that gives us a little deeper insight into what's happening in your physiology, your genetics, but also your Physiology.

Right. You know, how your body handles these kind of things. Welcome to Demystifying Pans and Pandas, the podcast where we uncover the mysteries, breakthroughs, and hope behind these life-altering conditions.

I'm Dr. Nancy O'Hara, a board-certified pediatrician, educator, an advocate with over three decades of experience helping children and families navigate the challenges of neurodevelopmental and neuropsychiatric conditions, especially pans and pandas.

These disorders can feel overwhelming, but here we'll break down the science, explore transformative treatments, and share stories of resilience and recovery.

If you've ever wondered what's possible for your child, or how to find answers, this is the place to start. Let's dive in. Hi, I'm Dr. Nancy O'Hara, and we're here at MAPS, the Medical Academy of Pediatrics and Special Needs, healing tomorrow's futures today.

And we've listened to an amazing lecture by these two people, Eric Gordon and Nafisa Parpepa.

## Personalized Medicine and Toxic Load

who have been absolutely incredible in helping us to understand the toxic world that we live in and all of the toxicity that our children and our adults are dealing with.

And I love the way you talked about, it's not just about one metal or one glyphosate. You really talked the whole gamut that need to think about in our people with chronic illness.

Talk about that a little bit more. Absolutely. I think that people are often focused on just one toxin, one metal. People are focused just on mycotoxins.

Mycotocins are important, but there are many, many toxins in this patient population. There are SNPs that are suboptimal, meaning that they're epigenetics, and if someone doesn't understand what that means, they are epi-genetics are a sub-optimals for being able to handle those toxins.

So what might be five toxins in one person, which might be okay. That person can handle them naturally. Another person—our patients cannot handle that.

And so, we need to look at the full load of toxicants in that person. We need look as their ability to detox, and we to need their genes. So, there's so much more.

I was just talking to William Parker, and we were talking about Dr. Sydney Baker, my mentor, the grandfather of functional medicine. And one of his phrases all the time was, genetics loads the gun, environment pulls the trigger.

So as you're saying, somebody who lives next to a golf course may be able to handle the glyphosates that they are, but somebody else in their family, genetically, genomically, may very susceptible to that.

It's putting that all together that really matters, right? Yeah, did that? You know, when people think about diseases, they think that the disease is the issue, then it's their body.

The disease, is just what we name what's happening in your body, you know? And it is that sharing, because that's why that same exposure can cause Parkinson's in one patient, dimension in another, maybe a little chronic fatigue in the other one.

And autism in other way. Right. Then the, and then the person is healthy. Hey, you know, it's, and that's what is so important about learning your own body and attention to your aim system, because we can get advice, but our generic advice is generic and you really have to hone in, learn how to listen to own your body, how do really sense it going on.

And be willing to sometimes, if you are having problems, spend the money on doing that testing that gives us a little deeper insight into what's happening in your physiology, your genetics, but also your Physiology.

Right. You know, how your body handles these times. Right. And it's one thing we always get asked about at MAPS, what's the protocol? And again, it is about our N of one.

It's about the child or the adult in front of us and all the things that make up that person that can help us help them reach their fullest potential.

Right, we can't do cookie cutter medicine. That doesn't work. There's an acute model of care where people's bodies behave Similarly, broken bones, but when people have been sick for a long time, it's complex, that's chronic.

Now they're in their own flavor of illness, their expression of how they became ill and how their presenting and the way we treat has to be unique to that person.

And in the same way you're saying, you know, it's not just, led in one person. It may be all of these things. Right. it may take a lot of things to get to health.

Its not about just putting one medicine on, or even if it is chelation or something like that. You can't do that in a vacuum. No. Talk about that a little bit more.

## Whole-Person Care and Chronic Illness

Well, I think one of the important things that differentiates it, people who are still fairly healthy, you know, who, walking, talking, getting up in the morning, working, maybe they're tired at the end of day or tired on the weekend, those folks, the treatments that will sometimes get them back to health can be very can be rather simple, you know, clean up the diets, get better, take a few supplements, fix your hormones, those things work.

And I really think that what I call the basic functional medicine approach is useful. But when you kind of fall off that edge, whether it's young with autism spectrum disorders, or as you get older with more of the chronic fatigue, Well, in COVID world, then you have to really do much deeper work on where, where the weak spot is in that being, you know, and what needs support and in what order.

And then that's what really changes things in the world of toxic, with toxic. Because too often, if the doctor approaching is just at, oh, You have a toxic problem, And you start chelating.

Well, people often fall apart because they lack the basic micronutrients to support the curation process. You know, that's why you're that sick because healthy people carry that load because their body can keep getting rid of it or storing it away until it becomes overwhelming.

But it's that, so we really have to go back to that basic, what nutrients do you need? What are you lacking? How can you support that? And that also applies, I think, on all levels of being.

You know, the physical body, you know how your structure is, because one of my gave a talk, it's a structure, cause doctors don't pay any attention to health.

And well I see in chronic people, when people is in a chronic the ill, that the kind of neck imbalances or the thoracic imbalance is obvious. Everybody has, no problem.

But once you get chronic inflammation on top of that, nah. Because now those areas that are a little narrowed or like there's a swelling that doesn't let the nerve or the lymph drain as well, you add inflammation and that becomes a function of the block.

And then you start getting into a lot more trouble. So I'm going on that. But stepping back a minute to what you were saying about, for instance, nutrients, oftentimes, whether it be on social media or patients in my practice, they'll come in and they say, oh, that didn't work for me.

That made my child much worse. And one of the phrases I often use, we've got to go back through the door, not the window. Because what else were you doing at that time?

Had you bolstered your nutrients? What was your gut like? Was your child constipated? what was you sleep like, what were your stress level like. You know, there are so many things that could have been impacting why you had a negative reaction.

Your body may not have be ready to have that bigger intervention. I find that all the time where patients have malabsorptive issues. So they try to take the supplement, but like you were saying, they're constipated or maybe they were prone to diarrhea and their gut was already inflamed.

It wasn't the right time to be able to absorb that nutrient. Right. And it's not just that it didn't work for him, but we then have to go downstream or backwards.

Why? It's so much more than just looking for the root cause. That's the thing. And as you said, once the system becomes that sensitized, then we have the problem of, you know, your body's trying to protect itself.

And it don't, it's doing that at all levels. You know, trying to do that in your gut, but oftentimes the gut is now not a friendly territory. But in the nervous system, which I always hate the word control because in a body there's nothing that controls.

It's all a dance. Yeah. But the nervous system begins to go because when you're not feeling, then you get a little more fearful. And especially when, when know that you don't know what you can take, that's going to affect you.

Then everyday life becomes a bit dangerous. Am I going eat this and get sick? Am i going smell this, and gets sick. Right. Is somebody going get angry with me or I'm going getting angry them and then I am going go tailspin because I can't get out of that emotional state.

You know, as people always say, health is on some level having flexibility. You need to respond to the environment in a new way. And when we're sick, we get stuck in an habitual response pattern.

I mean, our bodies are stuck there. Right, and we hold it in our bodies. You know, that stress may come out in the neck pain or the back pain, or whatever it may be.

Our bodies hold, our spirits hold. And I know this may sound very complicated for a lot of our families.

## Inflammation, Cell Danger Response, and Healing

Oh my God, you know I thought I was just gonna go to this doctor for chelation and now they're telling me I gotta do this, this and this. But it really is the whole person that needs to heal and addressing that is so important.

Honestly, if they go somewhere just for chelation, they're not getting anything else. It's very likely those metals are going to recirculate. They could cross the blood-grain barrier and make somebody worse.

And I know you talk about arsenic and cadmium and lead and mercury, but talk some of the other toxicants too. Yeah. Eric, you didn't have a chance to talk aluminum actually.

Aluminum is so interesting because medicine in general kind of thinks it's a non-issue unless you were, what, 30 years ago, I think was maybe a little longer, people who got dialysis for kidney failure.

The solution had an aluminum in it. And oops, high levels of intravenous aluminum, not good. People had no logic, you know, sequelae from that. They really had good problems with dementia.

It was pretty terrible. Right. But because the body is so good at not absorbing aluminum orally, You absorb but 0.3% of whatever goes through your gut and about 95% you pee out.

So really pretty good to getting rid of aluminum. our body trying to keep us healthy in that way. Because aluminum is like the third most common mineral in the plant.

It's really amazing how much, I have no idea, there's so much aluminum in this soil. But luckily, it's not absorbed easily. So everyone thought, oh, aluminum, not a big deal.

But again, when the gut's inflamed, aluminum is absorbed. When we inject aluminum, and one of the big things around vaccines has been the use of aluminum in the vaccines.

And the argument that it's a non-problem is if you look at population studies, it is washed out. It's non problem. You know, they look at Marines of kids and no higher incidence that they can see.

But when you use what they call epidemiology, which is study of populations, we ruse the people who are small percentages of that. Okay. And it was the same thing with, I mean, the COVID vaccine, given like, a year ago, like 5 billion doses.

okay. and clearly most people are far. But there are some people who we know that the vaccine has caused, you know, some significant changes in their immune systems and they haven't recovered from that.

But that gets washed out. Even if it's a million out of 5 billion, it is not a big number. And that's the problem we have with the Arunin vaccines, with Aruna in the vaccines.

The Arumin vaccine, they, its there to prolong the immune response. It's there keep the antigen that they put in there. Right, there's a reason they're putting it in.

Yeah, it lasts longer. And if you look, you know, when they try to do studies while diuruminum that comes out, well, not much is peed out right away. There's not in the bloodstream right array, but because it's taken up by your macrophages, by white blood cells.

These macophages when go into your brain, they are Michael Weah. They don't always go away. They can wind up lasting a long time. And the aluminum toxicity is really in the immune cells.

It puts them into an inflammatory state. And so that's where the question isn't so clear. But again, we do this to hundreds of millions and billions to children.

And obviously most of them do fine. Right. So that the issue is it's what we need to go forward. I came to this full area of vaccination is figuring out and have, oh, went from a little vaccination for that.

Okay. Where it maps. You know, is, if you really have to be able to determine at birth the tendency towards persistent inflammation. Again, costs, money, but that's the way we have aim because vaccines do seem to to

useful in population level.

Okay. I mean, there's no question. We, I grew up with Mises as a doctor. So I've seen two cases of Mise. Right. She worked. Okay. But if you, and most kids do fine, but if they have a tendency to inflammation, the vaccine causes inflammation for healthy kids for three days, five days.

Right. In kids who are predisposed to autism, that inflammation can last a month. And you can just check by checking body temperatures. You'll see the temperature stays up for a monk.

Well, maybe that seed shouldn't have 30 or 60 vaccinations, but you have to get a real discussion. And at this point, we are in this place where nobody's talking to anybody.

You know, it's like no vaccines are there to destroy humanity or vaccines were there too save humanity. a little mumblier than that. Right. And as someone who studied public health, got my master's in public, you know, we were looking at what's best for the public.

But as a clinician now with the patient sitting in front of me, I want to look at my N of one, my individual and what their risk is back to that What's their genetics loading?

What their environment, you know, are they living in a moldy environment? Are they inflamed for other reasons, other infections, and looking at that child and as a clinician and a patient being able to decide, right now, this may not be safe for you.

Right now we need to support you a lot more before we can do something that may be meant to be good for, but right not may an optimal. that it would be important to look at the health of the parents preconceptually.

Again, going back to cost, this is not easy to roll out to the public, right? But to understand mom's toxin load, dad's toxins load. Mom's more if she's breastfeeding and, you know, but that plays a role.

## Testing for Metals, Detox, and Exposure

Looking at family's genetic propensities plays role, there's a way we can figure this out. Who might not be okay? And what we're trying to do at NAPS is we've started another advanced clinical module looking at the first thousand days because we are not going to really make inroads until we start to look at moms and dads before they conceive during pregnancy in those early life.

I'm so glad you're doing that. It needs to be done. Because things don't come from nothing. I mean, again, bullet wolves comes from the guy over there.

And this is my favorite thing to say, medicine is designed on the model of what we learned from war. That's how medicine has advanced. Modern medicine, you can do amazing things to save you from trauma and to support you.

Physical trauma. Good point. They're still working on that mental drama. And that's the medical model that, again, is a great population-based model, but he does not deal with health or keeping people healthy or knowing what the individual risk factors are, or more importantly, just the fact that health is about being able to stay in balance.

Right. It's okay. And medicine is about just keeping you alive long enough for your body to heal. Yeah. What we're interested here at MAPS and all the people we work with is how to help the body heal, which is a different issue than medicine, is it about how, to keep you live while the, body feels.

That's why we use band-aid medicine. Right. The name it, blame it. Yeah. Which is not bad. Right? But it's, it doesn't get you healthy. It's waiting for you to get healthy that we have chronic disease because we got real good at band-aids.

So we can keep, you know, be, no die, but you now have a chronic illness. And what we try to do here is help people get back into valence, find the individuality in their beings.

Uh, and it is, as you kept out to 14. It's on all levels to be this emotional spiritual part. So that's why I was trying to make lost my chain thought even earlier is that when the body is in this constant fight or flight, because it goes there because everything you do can make you feel bad.

It's very hard to get the healing signals from your central nervous system to the rest of your body because it's not going anywhere. It staying in that place, oh my god, I'm going to die.

Oh my God, and that doesn't allow for healing. And I too like analogies. When you were talking about the inflamed microglia, thinking about what we talked about in our foundations group, which was a lot about this cell danger response.

you know, which is a normal response of our cells when we're exposed to a danger, a virus, chemical, intoxicant, whatever it is. We're supposed to react.

In that war analogy, we are sending out our sentries, our cytokines, and our mitokine to fight that. And usually, in an otherwise healthy individual, when that virus goes away, those sentries retreat, we go back to that state of healing.

But in our people, adults, children with chronic illness, that persistent cell danger response, the persistent state, of fight, flight, freeze, inflammation, makes them not able to go to healing, and putting a band-aid on it may help them feel better for a little bit.

But we really need to get at that salutation that brings them back to the actual healing. And, you know, I always say that, anger is a very good example.

Yeah. Healthy emotion. But not if it doesn't turn off for the other person. Right. And that is your immune system. It's designed to fight, you know, as you talk about this, the cell danger responses.

I think it's such a great story. Cause to me, I always like to emphasize people that the CDR, or the self danger response is a story, it was a way to understand how the body works.

it is not a thing. Right. Its a process and that first step of inflammation and then healing and restoring communication. And thats the part that people forget about.

We focus on. lowering the inflammation, but we've got to get to that third part where that keel cell can start being part of the organ. Which a lot of times when people remove the root cause, they don't go back to their state of health because I'd say CDR2, the cells are not communicating with each other.

So it takes me back to root cause medicine, how Eric and I often lately have become a little irritated with the phrase root-cause medicine because we need to look at what happens after we remove the root causes.

There's the key coin, the term root compensations. I love that, right? The root compensation. What's going on there? I consider that CDR2, CDRR3. How do we loop the whole thing in together?

That's what we're always striving to do with each patient. Right. And going back to Sid, if you're just looking at one root cause to remove, it's sort of like his two tacks rule.

You only remove one tack, you are not going to feel 50% better. It's the same sort thing. But even once you remove it, you have to bring the body back to a healing state.

What's happened to the nerves underneath, what's happen to cells there, the lymphatic flow where the tacks were. Talking about Dr. Baper, when I was first back in the early 80s, he was the man who actually knew skulls.

But one of the things that he told me back then that I always remember is if you look at people in the early days when they first had those roller coasters that went upside down, he went and took pictures.

And you could see that when the roller coaster was going, it's going up and down. Everybody had different expressions. Some people were smiling, some people would be frightened.

I remember those pictures! But when they were upside down, everybody was like, it was shock on their faces. And that's the thing about medicine. Medicine is designed to treat the people who are upside-down.

But the individuality is lost. That's what we're all trying to get back to, and Eric could bring us back these medals, said at the beginning. The toxic load in our environment has gone up tremendously.

I mean, it's huge. The amazing thing, the body's been able to deal with that, but each one of us has a different compensation. A different pathway that's high or low or up or down, or our guts are inflamed a little different, well, because it all does come down to the gut.

## Functional Medicine Limits and AI Support

Right. Unfortunate. It does. Maybe she didn't because the guy is difficult. Once you've got it once. Not the second brain. That's the first branch. And once it has a bad habit, it's really hard to break it.

It takes time to shift the gust. Yeah. That brings me to, you mentioned a little bit about testing. We can do our history and our physical exams and figure things out, but sometimes we do need the test.

to help us know what metals or chemicals are affecting a child or how the gut is acting and why and what to implement. Do you want to talk about that a little bit?

Go back there, but the basic metals has to be, because I think Mephisi does a great job of teaching me. I used to do it a bad way. Okay. So a lot of doctors are just doing a provocation test.

Right. And then comparing the provocations test to the values on the lab, the norms on there on a lab. But those norms have no basis for a provocation.

Not only that, it's important that people do a free provocational test, to understand if there's an acute exposure. because very, very often this patient calculation, there is an acute exposure at several times a day.

I'm seeing patients with high lead in the blood, high mercury or cadmium in blood or other metals high in urine. When I see that, I know this is not a time for chelation.

Actually, what I need to do when I say that is to help them find the exposure help remove them from that exposure because we could be chelating people till the cows come home, but if they have an acute exposure, we'll just be clearing them forever.

So that's the standard of care, and that standard makes a lot of sense. to me. Not only that, but there could be patients who I might expect that they should have high mercury in the blood and the urine because they eat a lot of fish.

And so I'll test them, the mercury, sorry, blood, and urine. I see mercury high in blood but not in urine, that will tell me that have issues in their detoxification pathway.

They're not getting it out. They are not flushing it up. So then that leads me to test for other things. Okay. What's their methylation status? What is their glutathione status, is there glutamine under oxidative stress?

what's the mineralization status of micronutrient status. You need to fix those things before we even start to detoxing. Yes, we need get them out of the exposure.

Stop eating fish. regularly. Let's support your detox pathways. Now let's retest and usually then see them urinating it out. After that, then I might do a provocation test to see if they have a heavy metal burden.

Right. And then we'll decide from there if it's book ejaculation therapy or not. Like we were talking about earlier, we have to take steps backwards sometimes when we see something that just isn't quite right.

But that takes a lot of, I think it's an art. It's a science and it is an Art for us to see the nuances behind this because it not black and white. There's lot a gray.

Right here. Right. That's where we in functional medicine live in the gray. It's not disease or not-disease, it's all this gray in between. I feel like what we do is beyond functional medical.

In functional medicines, they miss toxins very often. They miss persistent infections often And I think functional medicine is a great baseline for all of us for what we do.

But, but it's very often about rebalancing the gut. Well, that needs to be done. Rebalencing the hormones in adults. That often needs be down too. So working on the terrain, we care that then we need to understand more infections, toxins, nervous system, and I think that's where general functional medicine sort of misses.

Yes. It's the infectious, for a long time, you know, it's funny, came out of medicine and, as a regular, an MD, I would pay enough attention to trace minerals for long, long times because it was this attitude of They're fine.

When you measure things in the blood, they often are. The blood looks great, but the blud doesn't tell you what's in your tissues. Right. And so that was a blind spot.

Without the trace minerals, your vitamins don't work. Thanks. So of course, you can give people vitamins all you want, But if there's no POFAC, or they're not speeding up the enzyme anymore, then you won't be without good vitamins.

So it's going back to like what the body needs and realizing that we can't always measure things as well as we want. It's getting better. I have to say that's probably the biggest thing that has changed in the last, I don't know, five, 10 years is our tools for measuring them.

And as I was saying, luckily we're being saved by AI in a sense that when I now get a stool cast that it has 150 bugs on it, um, need a little help. Because I relieved her up when there was four.

Maybe seven. Four bad ones, three good ones. You know, maybe candid on the report. Exactly. I can do that. That's what I want people to understand is that doctors work in the world of like, you know what, 15 blood counts and comprehensive metabolic patterns.

Oh yeah, you can glance at that, that's sort of normal, I get the relationships. But when you start adding in the milk that we can now measure, most of us can't think of it all in our head anymore.

So this is just an acknowledgement that I think AI is going to save us, save our patients. And I don't want to talk about AI, but I'm just fascinated by what I've been using it now and what the patients give me.

## Hope, Partnership, and Closing Remarks

And I tell you, you know, it's able to, because it can analyze so much data, It can give you a picture that I might have missed pieces of. Interesting whore.

Well, I think it was wonderful. I personally think It's going to be an amazing change in medicine. As long as patients understand that, just like we're not always right, Fados isn't always Right either.

You know what I mean? So it is nice to have both of us. You may have to help me with being more comfortable

with that one. Again, it can correlate information in mass that I just can't do.

But then I still need to think about it and check and double check. It's not that it gives you answers, but it give me options. What's the data together?

It gives you clues that, as the detective that you are, can lead you down the paths that help. Yes. Nothing can, I would say, take from that clinical experience that we have, right?

That is the art. But the AI can put data together for us. You could put labs together, for me, and then I'll analyze them. It'll give me their ideas, And I say yeah or no, you know?

But it's the data piece. Well, I could talk to the two of you for hours, but you gave such a comprehensive lecture here at MAPS, and you have such comprehensive practice, the way you help people and look at people.

How can someone find you? How should they get in contact with you. They can find us at Gordon Medical. Gordon Medical. GordonMedical.com. Yeah, people come from all over the world, all of the country.

I think we have, you know, the social media sites, God knows what they are. That's fine, Gordon medical. And any last words of wisdom, hope, experience that you want to leave our listeners or viewers with?

Just don't give up. I mean, I think I've been doing this for a long time. And I, every day I remember patients that I saw 10, 15 years ago that they didn't help, that with what I know now I could have.

Right. But no, there's plenty of people that we don't help. We help a little bit. You know, we've gotten people, better, but because of the nature of our population.

When I started, I saw people who were just tired and wired and those people were here better. But when I see people. Who had been unfortunately on this journey for 10, 15, 20 years.

Let's not knock it out of the park all the time. It takes time, we turn them around, but it takes dedication on the part of patient and on part the doctor.

A partnership. Yes, a partnership, it can't be done in that sort of And I think also, it's okay to say, I don't know, but then to be able to go back and say I found it.

I can think of patients I saw 15 years ago where I missed this, that, or the other thing, and I call them today and we need to look at that. We didn't know that then, right?

We know a lot about MCAS 15 years ago. We can know about craniosophagal instability and the impact of MCAs on hypermobility syndromes. And I say that to families all the time.

You know, you didn't know. you couldn't what you don't. This isn't about coulda, shoulda woulda. Just be present today and do the best you can. And Madison, we're advancing and there are so many patients that we have helped.

I want to go back to that partnership. That's the important part. that's when I see the results when when i'm walking hand in hand with that patient here on a healing journey and then we turn the corner.

Well, thank you both so much for being here, GordonMedical.com. And thank for you being at MAPS, the Medical Academy of Pediatrics and Special Needs, where we're healing Tamar's children today.

Yes, it's such an honor to be here. Thank you. Pleasure to meet you again. That's it for today's episode of Demystifying Pan's Pandas. I hope you're walking away with insights, tools, and hope to help you and your child on this journey.

If you found today's conversation valuable, be sure to subscribe so you never miss an episode. Share this podcast with anyone who might need it. It could be the lifeline they're searching for.

And if you have a moment, leaving a review helps us reach even more families who deserve answers. Also, for more information, training, and community, check out our website, drohara.com and join our annual membership.

And remember, every step forward, no matter how small, brings us closer to healing and understanding. Until next time, be present, Be hopeful, And we look forward to seeing you next on Demystifying Pan's Pandas.