Opening on doctors who changed healthcare

I think we need to put those doctors on stage more. The Dr. Barodi of the world, the Dr. Feingold of the world. I don't want to see Academy Awards. I want to see doctors that have changed healthcare.

Wafik Alderi, his work on P53. Dr. Barodi, his work on fecal transplant. You know, Dr. Paul Fuerstad, you know, at Yale, his work on the microbiome. Sahil Khanna, his work on the microbiome and chronic urinary tract infection.

Colleen Kelly, Brown University, two cases of alopecia areata improved. Alex Carruths, the first stool bank available, you know. That doesn't mean they have all the answers, but they were brave enough to try.

I want to see those doctors being acknowledged. I want to see the scientists behind the bracket gene be acknowledged. Not just the businessman pushing that.

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, and 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.

Welcome to Demystifying PANS and PANDAS

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. Welcome, everybody. It's Dr.

Nancy O'Hara at Demystifying Pans Pandas again, and I really am excited to welcome Dr. Sabine Hazen. Dr. Hazen is not only an incredible gastroenterologist, internist, hepatologist, she's the CEO of Progenobion, Ventura Clinical Trials, co-founder of Topilia Therapeutics, expert on the gut flora and the microbiome, and just really a cutting edge medical researcher.

She's a writer, editor, world renowned speaker, and published author of one of my favorite titles, Let's Talk. Yes. There is an exclamation point there rather than the I, but Sabine has changed the lives and the world of so many people by her cutting as research in everything poop.

And Sabine, Dr. Hazen, thank you so much for joining us today. Thank you. Thank you for having me. It's a pleasure. Well, I want to know, and I do know this, but please tell our listeners how you got started in shit.

I think it was kind of serendipitous. You know, if I go back all the way to when I was a kid, I asked God, where do we go after we die? And I think he led me into the microbiome.

Mainly because I was always obsessed with where do we go after we what happens to the body when it decomposes, right?

Dr. Hazenu2019s path into microbiome research

And when you think about it, microbes in your gut decompose your body and put you back into the ground. So these microbes are really alive. So really, that was a path for me to understand the microbiome.

And it started kind of gradually, right? It started as a challenge. You can't get into GI. We don't take women in GI. And I took on the challenge and said, well, I'm going to be your first woman.

And then it was a challenge of you can't have kids and be a gastroenterologist. And I'm like, well, I'm going to do it. And then it was a challenge of, you don't need to do, um, you know, to look into the microbiome.

We've already looked at it. And it was two guys, scientists that said that to me. And I said, two sets of eyes have looked at the microbiome and you figured it all out.

Well, I guess I'm going to look at it. So it was really the biggest challenge. I think also what spun this challenge was really, um, You know, really the fact that I was kind of pushed to it in a way because I come from a world of doing GI and having had a difficult time surviving as a woman gastroenterologist Surrounded by men, gastroenterologists, I kind of had to create my niche.

And my niche was doing clinical trials for pharma. So I was the girl that was basically doing the clinical trial on biologics for all sorts of, for not only Crohn's disease, but all sorts of conditions.

And, you know, I was also the girl that started at University of Florida in GI because the challenge was we don't take women. So I said, well, how about if I do a year of research and I'll show you how I am and then you can accept women, right?

So, and I graduated with the Dean's Research Award at University of Florida. as the first woman GI. So I think it started from there. My attending at the time at University of Florida, and I love him, he was the chair of the program, said to me, you're really good in research.

You really should continue it. And so I deviated from doing thousands of colonoscopies to basically doing clinical trials for pharma. And when clinical trials for pharma became C.

diff and feces in a capsule My friend and someone that I really admire and love dr. Neal Stollman, you know told me years ago He said the future is in shit and I said, please don't make me play with it I really when there's a colonoscopy.

I'm usually out of there. So it's kind of you know there's an irony there right and there's also a courage that you take on to say, wait a minute, what did I do when I took stools and I put it in a physician that has C.

diff and the physician is still alive and doing great and survived C. diff. What is in poop, right? So then you force yourself to get over that yuck feeling.

And, you know, I remember the first patient ulcerative colitis. I was, my, my coordinator was not around and I was the one collecting the I nearly passed out.

And then you get over that yuck feeling and you take on the courage. And next thing you know, you're on a safari taking stool samples of all the animals instead of taking pictures of the animals.

So I think it was a series of challenges, a series of roadblocks, a series of you can't do that. You shouldn't do that. You won't do that. that you know were the chips on my shoulder that basically said well guess what I'm gonna do it and I'm gonna keep focusing on doing it and I'm gonna persist and you know that's what we are as women right where we can be told you know a free woman a spiritual a spirited woman a passionate woman doesn't get told how to dress, how to act, how to be, she just does it.

And even the book, Let's Talk Shit, I had so many people say, you shouldn't call it that, it's not appropriate. It's, it's vulgar. You're vulgar. And I said, you know what?

I don't want to sugar coat it anymore. And why is it vulgar? The top book in, in, uh, the top bookseller was, uh, the art of not giving an F and that was popular by a man, but a woman saying, let's talk shit is not popular.

No. I can't tell you, and I won't spend our hour together telling you how much we have in common, but even though I didn't get into shit and I chose another form, our early beginnings and how we got started have so many.

Just one quick story. I had an orthopedic surgeon after I had killed it with five other men. I had done better than all of that kind of stuff. He sat us all down and asked the five men what area of medicine they were going to go into, and he asked me what I was making for dinner.

And my answer was, I don't know, my husband cooks. And what was even worse is four of the five men who were going into orthopedic surgery, neurosurgery, and general surgery, didn't even see that there was anything wrong with his question.

It was only the guy going into family practice that apologized for all of them. And those sort of things put a fire in our belly and make us say, not again, we're going to keep fighting this fight.

I used to be in a group practice of GI when I, you know, I first started on my own and got myself into a lot of, you know, chaos because I was competing with the boys.

Women in medicine and the gut-brain connection

And then basically the next go around, I decided to join a group of men physician and one of the physicians said, you know, you don't belong as a gastroenterologist, you belong in the kitchen.

And what do you say in those times when people say that? And basically I say, well, actually, I belong in the kitchen and in the GI lab. Exactly. And I'm cooking my own recipes to fix patients.

So guess what? And by the way, let me just tell you, it is serendipitous and it is kind of funny that it is a woman. that as a woman, I'm kind of spearheading this microbiome research because the intuition that the microbiome was passed on from mother to child was really with my own pregnancies, you know?

Yeah. Carrying a child in my first year residency and craving salads and lettuce and my kid, that's all she eats. And then the second kid, you know, I craved chicken nuggets and French fries from McDonald's, complete junk food.

And that's all she eats, right? And I'm like, wow, how funny that I was craving the food that my kid was dictating for me to eat, right? Or did I eat the food and then start, you know, making their microbiome addicted?

Who knows? There's so many answers there. But that was the first intuition for me was, just from the experience of my pregnancies. And I went into this field, by the way, of understanding the microbiome.

Not just to understand autism, Alzheimer's, Parkinson's, but really to understand my two girls. What was different with my two girls' microbiomes? How could I prevent them from having a virus down the road?

How do I make them stronger? I tell my girls, they're my inspiration because You know, we as moms function by constantly being these warriors for our kids.

It's no surprise to me how the pandemic went and it was all women that stood up and women that are like, enough is enough already. You're feeding us crap.

You're giving crap to our kids. You're telling us to do this, this and that when a baby is born. Enough, you know? what happened to the old mother holding on her baby and also I think as women and we could go on on this we've been put on this shelf to do too much right like this liberation is like okay yes I can do it all but at the end of the day that's a lot that we're doing you know we are the moms You know, taking care of the kids, we're taking care of the house.

We're taking care of the husband. We're taking care of the job. And as a gastroenterologist, I'm sure you can, you know, relate to this. Um, it's a huge entourage that we need to be able to be there at work for our patients.

And I don't think our patients realize that, you know, it's much easier for my husband to go to work as a cardiologist and he never had to worry about anything.

Me, on the other hand, I had to juggle. you know seeing my patient but making sure my nanny was picking up my kid you know and making sure there was milk in the in the kitchen for her to eat cereal so We have a hard job as women and that's probably why hard disease is on the up and up with women.

We do a lot. Well, and I always say in all my lectures, they are the weaker gender. We won't call them that because we have to be sensitive to them, but I think that's why God made women responsible for carrying children.

you know, you knew we could handle it. But something else you say… If you want to get something done, by the way, give it to a busy woman. She'll do it like that.

Exactly. But getting back to the gut, one of the other things that I've heard you say that I so agree with is the gut isn't the second brain, it's the first brain.

and the gut-brain connection and what you're saying about your intuition and all of that, it all starts in the gut. And I think one of the first patients you did a fecal transplant with, you saw their Alzheimer's improve, right?

Wasn't that the… Yeah, and that gut-brain connection. 100% and that was the end of one. You know, a dear colleague and esteemed professor passed away last week, Dr.

Tom Borodi, so I have to acknowledge him. He was the pioneer of fecal transplant. He really was the face The courageous doctor outside of academia that basically pushed the data, pushed the writing on fecal transplant and C.

diff. It took, you know, the whole idea of fecal transplant, taking stools from a healthy donor and putting it into a non-healthy, started in the 50s.

And Dr. Brody in the 80s started taking it to the next level for multiple conditions. And I remember meeting him. Neil Stolman introduced us years ago and Neil said, you know, Dr.

Hayes is the other physician that improved Crohn's disease by fecal transplant. So he kind of lit up and he said, who are you? Where are you from? So he kind of like saw a mini Tom Baroti in him.

We kind of have the same sense of humor, same perseverance, same tenacity. And so it was kind of, I said to him, I said, well, I didn't only fix a few patients with Crohn's, I actually improved Alzheimer's in one patient.

The mini mental status was 21 and we went up to 29. And he said to me, you need to write this case. And I said, Dr. Borodi, you don't understand. I'm not the girl that's going to sit down at my desk and look for references and write the paper.

I'm the girl that you're going to basically be giving 10 clinical trials on new drugs and I'm going to make them happen and bring on patients in those clinical trials.

And he said to me, he said, no, you need to write this data. This is an epic N of one that's going to change the narrative of Alzheimer's. And so I did, I tried to publish it.

We had a lot of difficulties publishing it. It took probably about a lot of years to publish it. And when I published it, it was a paradigm change. It was all of a sudden people were like, wait, what?

What's going on? And then with Alzheimer's. And then I said to him, I said, you know, because he was an ego. He said to me, he goes, wait till you see the data with Dr.

Fine from Dr. Adams on, on autism and fecal transplant. Right. He said, you're going to be bombarded with kids

with autism. And I said, I don't take care of kids, Dr.

Brody. It's not going to happen. And you know, I, if you know my path and my path was one of discovery with that case of Alzheimer's, I basically went to Dr.

Feingold. And again, it was all divine intervention. You know, someone from Facebook said, you know, Dr. Feingold, you need to meet up with him. And I met up with him and I showed him my data on Alzheimer's.

I showed him the mini mental status before it was published. And he lit up because his whole work was on Alzheimer's. And he gave me a paper and he said, I gave this paper to a dozen pharmaceutical companies to reproduce this data, to publish it, to look for this microbe and to isolate this microbe and say, this is the microbe for Alzheimer's, right?

Because back then that's what he believed and he had the technology of culturing. And then he said to me, keep this paper in a safe. And then when you have your lab, a genetic sequencing lab, you're going to understand the microbiome and you're going to prove me right.

Fecal transplant pioneers and early breakthroughs

And I kept it in the safe, but I was like, great. I mean, amazing man, brilliant, spent his life understanding microbes. And by the way, one of the reasons I kind of like was so fond of him is he was still playing tennis at 96. Oh, I know.

And I was like, I want to be like this guy. I want to be sharp at 97 and still focusing and telling the story. He ended up dying during the Wolsey fire.

I got all his patents and papers and that was at the same time that I got a patent, I saw a patent with Dr. Baroti and his name on it for fecal transplant with autism.

And that's how Dr. Baroti, so it was kind of a chain of event that got me to meet Dr. Baroti. And then Dr. Baroti and I started talking every night. And he said to me, you're going to be bombarded with autism.

And I said, it's not going to happen. But sure enough, the month Shortly after dr. Feingold passed away and one of my friends is the producer is a producer of a show and In Hollywood and called me and goes, can you fix this kid?

He's 17 years old with autism and he's banging his head and breaking his teeth Can you fix him and I go honestly, I don't know. I'm just stepping into this.

I'm happy to look at it and And so the mom was a warrior. I fell in love with the mom. I fell in love with the father, the kid. And I said, you know what, I'm going to help.

And we realized, I realized anyways, it was becoming an expensive venture because once you start, so I have a portal with the FDA, which is like a portal where you submit all these clinical trials.

Right. And because I had a portal with the FDA, I'm able to submit an, what's called an IND. And so I submitted this as an IND because when you do fecal transplant, that's not C.

diff. So we first looked for C. diff in this kid, but he was constipated. He didn't have diarrhea, didn't have C. diff. So when we found that it wasn't C.

diff, we basically said, okay, well, Let's look at how we can get the FDA to approve this case. It took us three years and COVID got in the middle of all this with this case, a case that should have been like a slam dunk, 20,000 ended up costing hundreds of thousands of dollars of regulatory because every time it's much easier now thanks to, you know, a lot of things, you know, we've gotten so much better at answering.

And, you know, it's always the first one that you do for fecal transplant. That's the hardest to kind of like go through

the loopholes. And so basically what happened was we kind of discovered that, you know, through that, this path of this kid, we discovered, you know, it was during COVID.

And my first thought was, I'm supposed to be testing the donor, which is the sister, so obviously I'm going to do the stools that are required by the FDA, but I'm also going to think further what could cause a problem.

Could COVID in the stools cause a problem? If I use the stools of a kid with COVID, am I not risking the life of another kid of the sibling? And so basically what happened to me was I started becoming obsessed with finding COVID in the stools.

And we were the first lab to identify COVID in the stools. I told Scott Jackson at the beginning of the pandemic, who worked for NIST, National Institute of Standard, brilliant guy, I told him, I said, I think it's in the stools.

There's a PCR paper from China that shows it's in the stool. He started looking at the septic tanks. And because of that paper, I started looking at human feces that were positive for COVID.

So we were the first paper that was published in Gut Pathogen as showcasing the whole genome of COVID. That paper was a landmark paper of the pandemic that should have gotten us to say, hey, maybe in order to survive COVID, we need to look at the stools.

Maybe in order to survive COVID, we need to pay attention to what is the microbiome doing in COVID patients. So, you know, and that should have been from the beginning, right?

It should have been, yes, you can do your vaccine plan, but don't forget about early treatment and don't forget about continuing to analyze the microbiome and don't forget to continue the animal studies, right?

And just to be clear, what you were showing is that one of the things you showed at least is that those who got COVID had no Bifidobacterium. And those who never got COVID had lots of bifido.

I mean, I know that was after this landmark study, but there were so many things you showed in COVID. I mean, it was a game changer. And here's the thing, I felt like I was the one that needed to do that.

I felt like, who's doing the study? Why isn't anybody doing these studies? These are crucial studies to get us to understand. And also, this was the light at the end of the tunnel.

How did I survive? How did all my patients survive? How did I lose no one during the pandemic, right? at a time and what did I do to help patients and what was done to certain patients that didn't follow the protocol and why did those die, right?

So I think it was an important lesson. It was an important research that needed to be done. It was a hard research to be done. And I tell you, I think if it wasn't for all the roadblocks that happened in my life, of everybody trying to stop me at every step of my life, I would have not developed the courage to do what I did.

It's really when you suppress a spirit and you say you can't do it, that that spirit lights up and says, well, I'm going to show you that I can do it.

And and then you keep moving and so yes, it was it was literally I became a hurricane Because it was important to show the data and I showed it Think about it.

I showed it with a new technology that nobody understood or understands. And that's the beauty is that no academician can come to me and say, Dr.

COVID, stool testing, and microbiome findings

Hazen is full of it because she doesn't know. Because guess what? My rebuttal is going to say, well, if you know it,

what does Blatia do? Is Blatia a good microbe or a bad microbe?

And by the way, what's a normal microbiome? Because we're all different. And what does autism look like? And what's the best microbiome to put in a kid with autism?

So you counteract the negative and the criticism with questions. Because questions that have no answers keep the person quiet to be humble. Because what we saw during the pandemic was a lack of humility In science.

And although I probably appear as, cause people have said, Oh my God, she's so arrogant. I'm not arrogant. I'm confident about what I saw during the pandemic.

That doesn't mean I'm right. I could be wrong, but guess what? Prove me wrong. Right. Prove me wrong. And you have hundreds of publications behind you that show these differences in the microbiome, in those with COVID without their, you know, they'll be in the text.

It's not debatable anymore. Exactly. It's not debatable. When we found COVID in the stools and the government started looking at the septic tanks and started tracing the virus through the feces, my paper that was a landmark paper should have not been retracted, should have been the landmark paper.

When we showed loss of bifidobacteria, China reproduced that data, Japan reproduced that data, academic centers are reproducing that data. When we're talking about long COVID now, you cannot ignore long COVID and say, it's just the virus.

It's the microbiome that's altered. Now, granted, it could be from the spike protein of the virus, could be from the spike protein of the vaccine. But regardless, it is a microbiome issue.

Whether the microbiome issue happened before they got COVID and they destroyed their bifidobacteria, or the family is living in a toxic environment, or there's toxicity in the house, stressors, anxiety, pressures that killed the microbiome, alcohol, drugs killing the microbiome, or you got COVID, killed the bifidobacteria, or you treated COVID with a medication that killed your bifidobacteria.

Exactly. And you could not bounce back. One thing I wanted to feed into is a little bit more on autism because, you know, before I got into Panda's secondary Thanks to my own son, I first taught kids with autism and then was a specialist in caring for kids with autism.

By the way, when I was teaching kids with autism, Feingold was one of my early mentors in looking at things in that way in kids with autism. So the circle of life between the two, it's incredible.

But, you know, as Jim Adams has said, as you have shown, the differences in the microbiome in autism, the loss of bifidobacterium, the lack of a diverse microbiome is quite impactful.

And with fecal transplant, in your studies and Jim's studies, the increase in the diversity of the microbiome through the fecal engraftment has been incredible.

Can you just talk on that a little bit more? Yeah, no, absolutely. And I think there's going to be a time where we're going to start thinking about, you know, the right donor, right?

So I think this is the Dr. Adams studies were brilliantly done and were, you know, started opening the idea of loss of epithetobacteria. And in fact, that's what we reproduced, right?

When we saw that first case, he had loss of epithetobacteria when we compared it to the family. From there, the idea of who is the best donor, what's a good donor to give, right?

And remember, we're in a world right now where the toxicity is so intense that you're dodging the bullet, right? I mean, you go on a cruise, you're going to get bombarded with thousands and trillions of viruses.

We're constantly exposed from not only pesticides, the foods we're eating, the spraying. They're trying to keep us in these pure little bubbles, but humans are not meant to stay in a bubble.

Humans are supposed to be touching the ground, touching the grass, and when the ground is no longer viable because it's been killed to the max. You know, a good testimony, a good way to look at that is to take dirt.

And if you don't even see worms in there, you know, the dirt's no longer good, right? I mean, that every farmer will tell you, you know, you need worms.

And when you've killed off all those worms and those parasites in the dirt, you know, you're not letting the dirt, you're not letting things happen, right?

And so I think, you know, the Dr. Adams studies were just amazing at showing that loss of diversity. But now we need to kind of step back and say, what killed the diversity?

What are we doing? Because here's the problem. Yes, engraftment is very important. And following, in my opinion, anybody that does fecal transplant and doesn't follow the engraftment is wasting their time.

And the problem is in the microbiome space, I hate to say, there's not many labs out there that have that level of quality and validation and reproducibility that can show that.

Okay. And so when you start looking at engraftment, you start kind of seeing, yes, the kid is working. But here's the other complex problem is that if you're putting the kid back in the environment of toxicity, urine graftsman is gone.

Exactly. Which is what we see clinically all the time. Yes. And then so when people come to me and say, well, my kid had fecal transplant, but it didn't help.

The first thing I say is, who's your donor? And did you correct the environment? And by the way, as I was about to start this podcast with you, I was really thinking How difficult it is to treat one patient.

I have one patient right now that's very difficult to manage. And it's not a question of fecal transplant. It's a question of the whole environment, the whole dynamic in the family, the fact that nobody's watching.

So this is a person that's got Alzheimer's. And it takes more than the wife to take care of that patient. It takes aides, those are expensive. It takes a cook, that's expensive.

It takes the right environment, the right renovations in the house, that's expensive. It takes a nutritionist to explain to the parents what are the foods.

It takes a psychologist to remind the parents to not neglect the other children in the house because those children are impacted by a kid that has autism and you have to keep the balance.

It also takes a psychologist to kind of like empower the mom to stay strong because too often these moms are just running short and they're sick themselves.

They're sick themselves because they've killed their microbiome trying to help their kids you know and so the stress level to stay up all night to worry about the foods to make sure the food the kid has the right yogurt to overlook the school that the school is giving the right nutrition to overlook you know, that the kid is not being bullied, you know.

That's a lot. That's a lot for a mom. And we unfortunately do not have, you know, the structure that can help these moms. And I think I stepped into this and did all this research hurricane style, because I really felt sorry for these moms.

You know, I have a big heart for humanity, although humanity was kind of disappointing during COVID, I got to tell you, because the price of the stock mattered more than the price of a life.

And, you know, I just, but I have a heart. And, you know, these moms are tough. I think you know they have a low threshold and I have to be super tough with them as well and I have to remind myself as well that they have a hard life.

And they're losing microbes. They're missing microbes themselves. So I have to be more patient with them to take care of their kids and to help them. But it's so the whole…

It takes a village. It takes a village. It takes a community. really a community, you know, think about the farmer that's bringing the milk to the house of this woman, right?

Think about the yogurt that needs to be perfect and have bifidobacteria in there. You know, I was talking to a woman who is, you know, in the food industry and early on in the pandemic, she had breast cancer stage four and I helped her with it.

She survived stage four breast cancer, but it was hard, but she owned a yogurt. And I tested her yogurt and found no bifidobacteria, but on the label it said bifidobacteria.

Now this woman could have continued to sell the yogurt, but instead she did the right thing.

Autism, donor quality, and engraftment

She said, this yogurt is not helping people like me. Therefore it's not helping kids with autism. It's not helping others. I want to make a yogurt that's actually better and I want to follow Dr.

Hazen and just today before this I was talking to her because kudos to her. She listened, she spent millions on the proper research for the proper yogurt and now she has a yogurt that I can support.

Because guess what? It's gonna be a game changer, I'm sure, for some people. And here's the beauty of this. She said to me, look, I'm willing to keep testing to make sure that we have quality.

Because the one thing I realized during the pandemic, you know, was the lack of quality. You know, when I go to a pharmacy and I buy a generic vitamin and there's arsenic in the vitamin, there's a problem.

When I buy a chocolate and there's arsenic in the chocolate, there's a problem, right? Because think about the kid with autism who's eating that chocolate.

Not to mention our non-organic chickens and rice. We could go on and on, but just at the vitamin level. Think about what the pandemic was, a virus. A virus, we've always been taught load up on your vitamin C and vitamin D, but if the vitamin C and D is contaminated, What are you going to do?

I mean, I had to create my own vitamins because I'm paranoid. I tell the factory, I'm like, I'm going to be testing these batches every time you send me.

If I find copper or arsenic, I'm going to have your head. So because I'm taking them and I'm giving them to my kids. So it's the same thing with this woman that started the yogurt.

She started it for her and realized that yogurt was hurting her and then did the right thing. And she even said to me, she has a hard time finding investors now.

But she's doing the right thing because it's much easier to sell a drink that says, Hey, this drink is good for your gut health without showing the data.

Then to show the data, do the research and then sell the product. So because now that product is competing with other products that didn't do the right research.

And so corporate America is going to squish that product. to destroy it. So this is why podcasts like this are so important. Speaking at events like Cancer Schmancer with Fran Drescher and Jane Vonda being there was important.

Speaking to oncologists at the Wynn Consortium, exposing the corruption, the corruption in the publications, the corruption in the food industry, in our foods.

Think about who's testing that yogurt. No one. Even the study, and by the way, even me, when I did the study showcasing three out of 26 yogurts have bifidobacteria, everybody asked me, which ones are they?

The reason I cannot say it is because I am not the sheriff to all the probiotic drinks in the market. Okay. And I tested in my local store in Malibu, 27, 26 yogurts.

That doesn't mean if the yogurt in my Malibu store of this brand X has zero Bifidobacteria, but the one of the same brand in South Carolina has Bifidobacteria.

It's not, I can't just blame the brand. And by the way, one of the drinks I later found out that tested negative in California tested positive. for bifidobacteria in North Carolina.

So what was used? What was the processing? What was the milk that was used? So all that is important. So we cannot, as people that have a stage, or an influence, influence the wrong way, because then we destroy a company.

So we have to do due diligence. So what I started doing in my lab, actually, rather than busting these companies is, or, and since these companies are not always on the forefront of testing, I said, Hey, I'm going to develop a test where people can just test their yogurt themselves.

Copper genome biome. Test your yogurt. Couple hundred dollars. Test your yogurt and have the confidence that this is what it's doing. And so that's really the one thing we've kind of developed.

And that's in the nutrition. It empowers the population to basically say, you know what? I want to know. You know, every time we look at these products, is there arsenic in there?

And the label misleads the consumer. Here's bifidobacteria in a probiotic, but 16 out of 17 probiotics on the market don't even have bifidobacteria. Do you know that when I go test the probiotics that I give my patients, we're testing the microbiome before and after.

But before I even give them, I go to the factory to check the factory. I do my own due diligence. I think it's important because you need to know who the owner is.

You need to know whether they're righteous. You need to know whether they're clean. I don't want to go to a factory where the pipes have not been changed in 20 years.

And now you've got copper from the pipes going into my products. Right, right. So all that is important. But you talk about the quality of yogurt, of the quality of the products that you have, of the lack of quality, and some we can get in other places.

And you talked about the donor component. How do you emphasize or make sure of the quality of the donor? I mean, it's such an important piece of the fecal transplant.

So we've developed kind of a formula, having seen so many thousands of stools where we can kind of say, you know, but of course all this, you know, the microbiome is in its infancy, right?

I always say, you want to understand the microbiome, you have to attain a cure. And in order to attain a cure, you have to practice the art of medicine, which is really a gut feeling, right?

Think about what I did to it. Yeah, but it's true. It's like almost you're guided, right? Yeah. Think about what I did during COVID. I had a patient that was on my clinical trial for COVID for a treatment protocol that we pushed.

Remember, we were the ones that pushed the hydroxyzepac, vitamin C, D, and zinc as a protocol. It's not something that I… And by the way, someone offered me $10 million for that protocol.

And I said, not until I see the data. When I saw that it kills the virus, but it also kills your microbiome, I was like, this is not something that's for everyone.

Vice versa, we also ran the ivermectin doxycycline zinc. This was an idea of Dr. Tom Borodi. But ivermectin doxycycline didn't kill the virus in everyone, but it did increase the bifidobacteria within 20%. Within within 24 hours.

I'm sorry. So, you know, what did I learn on the front line? I had a patient that was crashing He was on my protocol got placebo after the fact we found out he I didn't know whether he got the real Drug at the time because I was blinded.

So I didn't know if he got the real hydroxy or the placebo I was panicking. He was going to the hospital. His oxygen was in the 60s and I he had ivermectin because I gave it to him as a just in case and he had 36 milligrams of ivermectin on hand and I basically said to him I go and I was talking to Dr.

Barodi about this too I go my guy's crashing I don't know if he got the placebo or not and he's like nothing wrong with giving 36 milligrams of ivermectin I'm like really that's a lot so I basically tell the guy Because I knew the studies with Merck when they did the scabies with ivermectin, because actually my sister was the one that brought ivermectin to market doing the clinical trials on scabies and lice.

And so I knew it needed to be given with fat. So I go, why don't you stop by a fast food store, get some French fries and take all 36. He arrives at the hospital and this is an overweight gentleman, diabetes was crashing.

He arrives at the hospital and the oxygen was 92%. Now people are like, oh, the oximeter didn't work. No, no, no. We tested. We kept on testing. I was so worried about this guy that I was on the phone with him with his oxygen.

So I saw the oximeter increasing. And one of the fun things that I did during the pandemic with all these people that crashed, and by the way, that's when you see the power of God, right?

When a patient crashes and you have the confidence to take a picture of that oximeter, And then you give the patient the treatment and then you realize the oximeter increases and you take a picture with that patient after.

And that's what I think got me a lot of following on, on X and back then it was Twitter because I was showcasing the pictures and I was also saying, pray for me people, because I have a patient with an oxygen of 72% pray, pray, pray.

Right. And I have to say prayers work because the power of humanity coming together to pray and thank God for all the people that have prayed for me because really it was a gut feeling, right?

It was giving that 36 milligram, having the courage to give it, testing the stools of the patient 24 hours later and seeing, wait a minute, this guy had zero bifidobacteria.

Of course he's diabetic, he's not absorbing sugar, important microbe in absorption of sugar. Of course, he's overweight. We saw loss of bifidobacteria in overweight patients.

So basically, we discovered that when you gave the 36 milligrams, the bifidobacteria increased. So we started with the hypothesis. And it started on the front line and it helped me discover the microbiome because I took the courage to basically treat this patient and he's still alive, thankful.

But here's the thing, you know, if I didn't do that, if I didn't practice with my gut feeling, and this is where

interference in research shouldn't be happening.

Interference in medicine should not be happening. It is a patient-doctor relationship. You know, and I think a lot of the frustration that happens in medicine is because doctors are trying to innovate.

They're trying to find different solutions that are safe without hurting the patient. They have a relationship with the patient. They've seen something work with an N of one.

and then patients come to them, trusting them. I think when we started interfering with that, making, you know, guidelines are great to protect the doctors, but guidelines are not the art of medicine.

Guidelines are just there to guide the doctor onto what others have done and all the clinical research that has gone. But the moment you start interfering with the innovation, you just kill the research.

And it's made people not curious, not wanting to look for the answers the way that you do. Yes. It's also made doctors scared of practicing medicine. And here's what happens with that.

Cause this is an important topic and this is something that I think, you know, I don't talk too much about, but I think, you know, when you look at the cases that improve, you see the magic.

But not only that, you see the microbiome. And what I wanted to say was what we saw with the corruption of the papers being retracted, doctors like Dr.

Wafik Alderi, who is the head of oncology at Brown University, spearheads a consortium with other oncologists trying to find answers.

Clinical judgment, freedom of choice, and innovation

when his data becomes of precision medicine becomes, you know, criticized. by non-scientists, you have to kind of say, what's going on there, right? And they do that on purpose.

They put you on stage to destroy you because it affects the price of the stock. And ultimately, we have to have the courage. Medicine takes courage. It takes courage to save a life.

So the case that I was going to tell you before we bring up the twins is a kid that came to me with seizures and 100 seizures. The father was a prominent neurosurgeon.

And the father said that he had gone to nine neurosurgeons. The kid was bedridden with 100 seizures day and night. And the father came to me and I said to him, I think this is what we need to do with your kid.

And he said to me, he goes, you're going to do what on my kid? I mean, there's no studies on this." And I said, well, frankly, you know, you don't have a choice because guess what?

Your kid is bedridden. She's having seizures and nobody can help you. If you could find someone that can help you, go for it. But right now you're in my office.

This is what I'm seeing and this is what I believe we should do, right? And I put her on a strict protocol and I manipulated the microbiome in a way. Anyways, the kid has no seizures now, okay?

She's thriving. This is a kid that would have headed towards autism. And the father, it was an eye-opener for him because he said to me, he goes, I never understood that there's a brain-gut connection.

You're making me rethink all these drugs that I gave all these years. But here's the problem. This is an uncomfortable position for him, right? Yes. because now it's challenging his own beliefs, right?

Much like when you tell a pediatrician, hey, maybe there's something wrong with the vaccine, right? It's like you're taking that band-aid and they're in pain and they want the band-aid back because they don't know how to heal their skin, right?

Yeah. So this is the problem that uncomfortable feeling of instead of going to let's look for something better. Let's acknowledge there could be a problem.

Think about where we would be right now if we didn't acknowledge that antibiotics. had a huge role to play in killing the diversity that created C. diff.

And antibiotics was not the answer to C. diff because it's not about killing the microbe, it's about replenishing it. Stop killing, start brewing on, stop hating, start loving.

It's a lesson for humanity. And I think the microbiome is there as the light at the end of the tunnel, not only for COVID, but also for peace, for division.

Look, you can hate all you want the other political party, but the other political party is going to become patients as well. And ultimately, each of them in those groups are missing microbes that they need to understand because they're going to be the patients.

So it doesn't matter what your political stand is, who you support, which company you support. At the end of the day, it's an uncomfortable feeling. to say, I'm wrong, but when you're wrong, you have to admit you're wrong, and you have to see a better way.

Because you're going to be the one impacted when you're the patient. When venture capitalists believed in supporting the stock of Pfizer and Moderna, and then they come to me to find them stools to fix them, I say to them, where were you during COVID?

Why didn't you look at this? You know, with all of it, why didn't you look at the data with all the side effects? Why didn't you make an informed consent and informed decision, whether that was the right stock?

Why didn't you look at the animal studies that were rushed? Why didn't you understand the virus better? You know, so, you know, when you want to make an informed, I have no problem with people getting vaccinated or people taking drugs or people drinking alcohol for that matter.

But guess what? Freedom of choice, right? You know the risk, right? When you're flying an airplane, when you're flying a helicopter, You know, in the fog, you know the risk, right?

I mean, there are risks versus consequences. There are risks versus benefits, right? Sure, you're going to get faster there, but what's the risk, right?

Sure, you're going to be taking on that drink that makes you feel happier, but what's the risk long term? We need to assess risk versus benefits. be able to make informed consent.

And at the end, we shouldn't have government judging us. We shouldn't have celebrities judging us because we made that choice. That's my choice, freedom of choice.

And it goes back to the freedom of choice between the doctor and the patient also, having that choice to be able to say, this drug, this you know, fecal transplant, this, whatever, will work better for my patient because I know them as opposed to what you were saying about the protocols and the guidelines and all of that.

You know, I had a great lesson in residency where I had a Jehovah's Witness. who I watched die to a hemoglobin of three. I didn't think you could live with a hemoglobin of three.

But I tried everything to save that kid. I went into the committee of the hospital to try to save that kid. But ultimately,

it was the decision of the kid and the parents and whatever their beliefs are.

It wasn't up to me to change that path, right? It's not up to me to change the path of a person that believes that they don't want to take DNA from other people or they don't want to take blood from other people because it's not what they were taught.

Much like it's not my role to persuade people to eat like I do. You do you I do me and you have a responsibility and you made a choice and that's your choice and You're gonna have at the end of your life.

You're gonna be on your bed saying I coulda shoulda woulda The number one reason by the way that I stepped into the microbiome Is because I and spent all this money because it was a lot of money Was really I want to be the girl that said I coulda shoulda woulda.

Yeah you know, figured out the microbiome, but now I have Alzheimer's and I didn't figure it out. You know, uh, I want it to be on the forefront. And if I don't figure it out, at least I would say I tried, you know, it's always, I think nobody's going to fault a doctor for trying to save their lives.

Think about all the doctors that use hydroxy and ivermectin and all sorts of things. Nobody sued them. because they tried to save them. But there were lawsuits of people because doctors did not want to give ivermectin in a hospital setting, so lawyers were involved in that.

I think ultimately it's We've put the doctor in such a box and we've handcuffed them because of the politics, because of the fear factor, that now they're basically, they're stuck and they're following these guidelines because they're afraid of getting sued.

And ultimately, that's why we're in the mess we're in because we've remove the confidence that a doctor is supposed to have. Again, it gets misinterpreted as arrogance.

Oh my God, my doctor is so arrogant. When I needed to do in vitro, I went to the best doctor that wrote the book on in vitro to get pregnant, and that doctor appeared arrogant, but it wasn't arrogance.

He was just so confident because he had gotten women pregnant with in vitro. And so he saw, and every time a woman would get pregnant, He would get confidence from that.

Doesn't mean he got every woman pregnant with in vitro, but at least he tried. And he became a leader in the field because he tried. I think we need to put those doctors on stage more.

The Dr. Barodi of the world, the Dr. Feingold of the world. You know, I don't want to see Academy Awards. I want to see doctors that have changed healthcare.

Wafik Alderi, you know, his work on P53. You know, Dr. Barodi, his work on fecal transplant. You know, Dr. Paul Fuerstad, you know, at Yale, his work on the microbiome.

Sahil Khanna, his work on the microbiome and chronic urinary tract infection. Colleen Kelly, Brown University, two cases of alopecia areata improved. Alex Carruths, the first stool bank available, you know.

That doesn't mean they have all the answers, but they were brave enough to try. I want to see those doctors being acknowledged. I want to see the scientists behind the bracket gene be acknowledged, not just the businessmen pushing that.

I think that's the world that I want to see and I think, you know, if we change healthcare, that's how we do it to give courage again to doctors to innovate.

The microbiome is a very complicated problem. It's not a one pill or one microbe problem. We're seeing it with autism. You know, every day I intercept a microbe and I'm like, I didn't know this microbe released toxins.

You know, every day I ask myself, I didn't know this microbe was good. I thought it was bad. Or the other way. I thought this microbe was good. But now it's bad at this level, right?

But it's not about that one microbe. It's about the whole diversity and the community and who their friends are and what they're doing. So much so. And by the way, that's the same in a community, right?

You have one bad egg that keeps on talking wrong about people and it's up to the community to kind of like straighten that bad egg and say, hey dude, what are you eating?

Maybe you should clean up your house. Your house smells like mold. But it's only about all of us communicating, like our microbes do, to be able to get that information out there.

And speaking of getting that information out there, before we have to end today, can you just talk a little bit about your upcoming twin study research?

Because I think that's so key for our Pan's Pandas population. Yeah, so one of the things that we push in research of the microbiome is the validation, the verification, the reproducibility, right?

And we were able to reproduce showcasing two identical twins microbiome. exact microbes, and I was able to remove these microbes. When you do fecal transplant, you have to kill the microbe first, unfortunately, because it's like a weed.

I compare the microbiome to the garden. You have a garden full of weeds. You have to remove the weeds. Then you have to turn the earth. In other words, in the colon, it's like removing the biofilm that's got all these toxins and drugs and pesticides on it.

So you have to kind of clean it without killing the colon or the colonic mucosa because one of the mistakes that people do is they hear a talk like this and they go, oh my God, I got to go through the biofilm and they go to the pharmacy and they find these biofilm busters.

Please do not use biofilm busters. You're killing your whole entire colon and then you're going to come in with an inflamed colon where nothing can engraft because here's the problem.

It's not only about engraftment. at the microbes and the compatibility of the microbiome. It's also the mucosa. Why is the mucosa not latching onto these microbes?

What's going on there? Do I need to fix the inflammation first in the colonic mucosa, then implant, right?

Twin study research and future microbiome work

So that's why it's important to do step-by-step approach and understand every patient is different and understand that every case is different to fix that patient, right?

I so agree. Yeah, so these two twins, the mom trusted me. She flew in from Tennessee and basically came with her twins. They were running around my practice like, you know, chickens without heads and they were like rummaging and not speaking, nonverbal.

My staff saw all that. And so we started working with the family and the mom basically, uh, trusted me cause she saw the amount of money that I spent on my lab and she saw how I was doing the research and she saw, I was the editor on the microbiome of practical gastro, which is a journal that reaches 18,000 GI doctors.

And so she saw all my work, my publications, my coming out, all this, you know, going all these podcasts and she trusted me. And as we were, you know, helping these kids.

After nine months, well, we saw it early, like they started beginning. So what I do with families is I start working

early on with them. And then if I see progress, I tell the parents, we continue.

And if I see some engraftment and removal of those microbes, we continue. So the paper in the abstract is going to be shown at ACG, showcasing really the disappearance of these microbes.

and then the appearance of good bacteria. And then these kids verbalized, you know, these kids are speaking, reading. It's amazing. It was amazing to see.

But the mom literally had to push me to do it because, you know, when you're doing something cutting edge, It's outside the box and it's something that you don't really have a protocol.

Doctors have been, when you look at primary cares, primary cares mix medications all day long. They give a cholesterol pill, they give a hypertension pill, they give the omegas, they give all this.

No, the FDA doesn't come to them and say, hey, you need to create a consortium of one pill, right? they're allowed to do that. In oncology now, as I was speaking with Dr.

Alderi, it's the same thing they're trying to do. They're trying to combine chemo drugs and they're like, why do we need the FDA to tell us how to combine drugs?

I mean, primary cares have done it all along. So if Dr. X wants to give this immunotherapy and Dr. Z wants to give this, Yeah, let's combine it. Let's see if there's better in improving and let's work smarter at improving the life because ultimately these guys are on the front line, right?

When you talk about the head of Yale, the head of MD Anderson, the head of Harvard, the buck stops with them. So the patient comes in with a glioblastoma They're counting on the head of Harvard to fix them.

And they'll donate and they'll spend money on Harvard to fix them. So these guys are in a strange position where they have to start investigating new trials, new drugs, new innovations.

And how do they do that? They go back to the classroom to see with the scientists in the lab, hey, what have you been seeing? They look at novel new therapy.

When I presented my data on the microbiome and the importance of bifidobacterium in cancer, I can tell you they all paid attention. And here's the interesting thing about this whole research of bifidobacteria and the microbiome.

It's a new field that no doctor really understands well. How many doctors know that your probiotics, if you turn the bottle and look at the label, the bacteria is bifidobacteria.

I bet you the majority of doctors out there, especially those that are not really into the, you know, naturopath, functional medicine, non-functional medicine doctors, they don't know.

I mean, I can tell you, I educated a lot of doctors in bifidobacteria and, you know, and I thank God for conferences like ILADS, TACA, Summit, A4M, MAPS, you know, thank God for these conferences, you know, documenting hope.

Thank God for these conferences that open up the minds of doctors and doctors go to these conferences to learn something else. When the head of an academic center, very prominent academic center in GI calls me and says, you know, Sabine, which conference should I go to educate myself on being more functional medicine?

I That I took that as a compliment because I felt like, you know what, by me listening to her research, by me listening to her data and her wanting to see what I'm doing in the functional medicine world, it got her to my path.

And that's what we need to do. I think having been a Malibu physician for all these years, you know, my clientele doesn't want cookie cutter medicine.

They want. In the kitchen, what am I supposed to be eating? I don't, they didn't want, you know, and that was a big lesson for me at the beginning of fecal transplant was, you know, with Crohn's especially, my celebrities with Crohn's did not want to do biologics.

It's not, it's nothing against pharma. I mean, biologics work and they were great for the science and they're great for the science today. And they definitely have saved a lot of lives and are doing amazing work.

But that clientele did not want, they wanted something different, something outside the box that didn't make them be you know, remind themselves that they're patients.

And, you know, a friend of mine said to me, you attract as patients who you are. That's who I am as a patient. I'm going to be the girl that's going to try different things because I want to fix the problem.

I don't want to be thinking, Oh my God, I've got back pain. I'm going to take this pill to numb the pain. I'm going to figure out what caused me the back pain.

I'm going to get my tilt table, get myself on the tilt table with a vibratory mat and I'm going to fix myself outside the box because ultimately I don't want to be reminded every day that I have pain and I don't want to be reminded by taking pills that numb the pain and I'd rather suffer in pain and remind myself that I'm a warrior then numb the pain, but that's just me, right?

This is freedom of choice. Some people don't like pain and they're like, give me the pills. It's their choice. We're not all lions, you know? Some of us are gazelles, right?

Some people are gazelle. We have to be sensitive to that. The animal kingdom, whether animals or humans, are all different and we have to be sensitive to the gazelles and the chickens and everything, you know?

Right. But it's like you said, I mean, we can put a band-aid on things, which is what the pain medicine is, and that's fine. There's nothing wrong with it.

But the root cause medicine, The not name it, blame it, tame it, but getting at the underlying problem that's causing the back problem is what we in functional medicine are trying to do.

And the fact that that doctor was listening to you as to what conference to go to, it's because you were listening to your patients. You were learning from the guy with Alzheimer's that got better with the sequel transplant.

You were learning from the microbiome and really listening. That's one of the things we love about you. Thank you. But I was also learning from her, right?

I mean, she contributed amazing work in research. I'm not going to be the one cutting down that work. We've got to acknowledge, you know, science evolves.

We have to acknowledge the lessons. There was a Japanese physician that said he learns more from the mistakes than the successes. And I have to agree because with the mistake is where you learn.

You learn how to be better. Like, how do I make my experiment better? What failed there? Why wasn't it reproducible? You know, always search for that answer.

Don't be comfortable in, hey, I fixed two patients with alopecia areata. Be comfortable in saying, why didn't I fix 10 patients? Why did I just fix two?

What we do in clinical trials with pharma, which is a problem that I have with pharma, is we bring these substandard drugs that have a 20% success on, and that's great, they have 20%. And we made these pharmaceutical companies very strong and powerful and we bring them money.

But we should mandate that these pharmaceutical companies use the funds, a portion of the funds, to figure out what went wrong with the other 80%. Why did your product work on 20%? Why didn't it work on the 80%? Figure it out.

Closing remarks and how to reach Dr. Hazen

You're making billions right now. Why are you just pushing your drug? figure it out. I think if I had an advice to give Marty McCurry at the FDA, it's exactly that.

Mandate that pharmaceutical companies continue to understand why they don't have 100% success and to look at every failures and to understand what went wrong there.

Well, Sabine, I could talk to you for hours. It's wonderful to talk to a fellow warrior. I am always amazed when I talk to people like you, how much we have in common and how much you do to help our world, whether it be the world of autism, the world of Pan's Pandas.

just the world of our families. And our moms and dads are out there fighting and really appreciate all you're doing. So two last things. How can people get in touch if they want to learn more or read your research?

What is the website they should go to? Everything is on progenabiome.com, P-R-O-G-E-N-A-B-I-O-M-E.com. So Progenabiome, our publications are there. Our podcast, this podcast will be there as well.

Everything I do is on the website. I am also answering all the emails that come through that website. So it's a big job. Sometimes I'm behind on the emails, so don't feel sorry if you hear from me a month from now.

It's probably because I got bombarded with a thousand emails, but I tried to answer all my emails personally. I send those that can be easily triaged to like my staff, you know, people that ask me, you know, what, just questions, I send them to my staff, but usually I answer and I try to answer all the emails.

That's basically how you can reach me progenobiont.com. Contact me in there. The book Let's Talk Shit is on the website. It's on Barnes and Noble and on Amazon.

I recommend for everybody to at least read it to get an idea of what the microbiome is and also what antibiotics are. I don't think people understand how antibiotics were made and created.

And we live in a world of everything is top secret. And that's because that's how companies protect their products. But at the end of the day, we need to still advance the research and understand the basics.

What is a monoclonal antibody? What is a biologic? What is a antibiotic? Um, you know, what is a vaccine even, you know, so I think that's it's important.

Education is strength. Uh, education allows us to live longer. AI has its flaws, but on the whole, I like grok. Um, you know, grok is actually pretty good.

Um, so it's helpful, but you know, don't use it as the gold standard because there are a lot of mistakes on AI still. It's not there yet. So, that's pretty much how you can reach me.

Well, Dr. Hazen, thank you again. Thank you. I look forward to seeing you in many places in the future. And we so appreciate you being on this podcast and we'll see you all again on Demystifying Pans Pandas.

Thanks. Thank you. Thank you. That's it for today's episode of Demystifying Pans 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 time on Demystifying Pan's Pandas.