Introduction and Dr. Sandison's Background

– Dr. Heather Sandison it's such an honor to have you on this episode or this segment of Regenerative Medicine Summit. I'm really really grateful that you're willing to take the time and share all the amazing things that you're doing and all the research you're doing. So thank you so much.

– Thanks so much for having me. Let's I want to for people just to kind of see all the incredible things that you do. So let me introduce you a little bit to all you know to to the audience. So Dr. Heather Sandison is the founder of Solcere Health Clinic and Marama, the first residential care facility for the elderly of its kind at Solcere. Dr. Sandison and her team of doctors and health coaches focus primarily on supporting patients looking to optimize cognitive function, prevent metal and medical and mental decline and reverse dementia by addressing root causes of imbalances in the brain and body. She was awarded a grant to study an individualized integrative approach to reversing dementia.

And as a primary investigator on the ITHNCLR Clinical trial at Marama. Dr. Sandison has created an immersive residential experience in the lifestyle proven to best support brain health. She understands that changing your diet, adding nutrients creating community and optimizing a healing environment are all challenging even for those will full cognitive capacity at Marama.

She's done the work work for you. All you need to do is show up. She's also the host of reverse Alzheimer's summit and collective inside podcast where she works to share but it's possible for those suffering with dementia, it's such amazing work that you're doing it, it's so, so incredible. So I'm so excited to talk about this.

– Thank you, thanks so much for having me. – So, so tell me a little bit, I mean what what brought you in this direction? Because as as a naturopathic doctor, obviously there's so many areas that you can focus on and why this one. – Yeah, you know, this work found me, I was at a conference and saw a mental health conference, was very interested in the brain of course, and I think kind of when we think about what the hardest things to treat are like autism and Alzheimer's right, there's no real solution for those things when certainly from the conventional perspective, but even from the naturopathic perspective, it's extremely challenging to create balance in the brains of people suffering with neurodegenerative or developmentally challenged neurological diseases.

And so I was at I the integrated mental health conference and I heard Dr. Bredesen speak and what he was presenting was essentially this very complex but comprehensive approach to reversing Alzheimer's and I probably, like you have been told in my training by very intelligent, very well meaning people that to suggest you could reverse dementia or do anything about it really was to give people false hope and really to do harm, right? And our of course our naturopathic Hippocratic oath is first do no harm. And so of course, like, you know, I went into his talk very skeptical but curious and By the time he had presented it, I was like, this makes sense. Like, I don't know if I believe that it really works, but it made sense to me that if you his analogy is if there's 36 holes in the roof and you patch one, you still have a leaky roof. So if you take a systematic, comprehensive approach to something like neurodegenerative disease, and Alzheimer's in particular dementia in particular, then you can reverse it.

The body is built to heal, the brain is built to heal. And we've learned so much about the potential of neural plasticity and neurogenesis even until our 8th, 9th, 10th decade. And so taking that kind of curiosity and still skepticism, I went to Dr. Bredesen's full training.

How Dr. Sandison Entered Dementia Care

Well then after that training and that was in 2017, right around the time his book, the end of Alzheimer's came out after that training, I came back to my office, still a skeptic, but my name was on his list of people who had been trained and so people in the San Diego southern California area started coming to my office looking for help and I had some very enthusiastic patients who had more confidence than I did in the protocol.

And so I helped I, my first patient Linda came in with her husband and she was just a joy. Her mocha mocha is on a scale of 30 So moca score is how yeah exactly moca score is a worksheet that we use to get a, put a number on how severely declined a patient is with dementia.

And so a perfect score is out of 30 anything 26 or above is normal. And then once you get below 26 in the in the low twenties, that's now measurable cognitive decline. Sometimes it's called mild cognitive impairment.

And then when you get into the teens and even lower this is more severe Alzheimer's or dementia. And my patient who showed up in my office early after being trained by Dr. Bredesen, Linda, she had a moca of two so she could essentially respond with yes or no answers, I could see her brain turning, you know, I could see her understand the question I was asking, but by the time she would go to respond she couldn't remember what the question was.

It had obviously severely impacted her relationship with her husband and yet her personality shone through. She had this big bright smile she had on this big pink dress that I mean it was it was so sweet and cute and she had this studded leather purse, it was just awesome. Like you could tell all that personality that was in there and I was like wow like these these guys really committed, like I've got to help them but I don't know what it's gonna do.

So we got her own bio identical hormones, she went to the dentist, got all of her amalgams out, she got root canals, taken care of, they started ballroom dancing 3 to 4 times a week, they moved out of their multi bedroom, they got on the ketogenic diet, they took all the supplements.

I suggested that were you know of course um part of the Bredesen protocol and based on her lab work that we had at that time And then she did a bunch more lab work and she came back to review it just six weeks later and her Mocha was a seven and her she was now you know had more complete sentences, she wasn't going back to work.

She had worked as a teacher, school teacher, she wasn't going back to work but she was bickering with her husband about something that had happened the night before, her handwriting had changed had reverted back to the way it had been in her 60s.

And when I saw what was possible for Linda, like how could you not think what's possible for everybody who doesn't even have symptoms yet or what's possible for people who just have those beginning symptoms of like senior moments when I started to realize like oh this and I saw patients like Linda over and over um where people were getting better when I had been told that that wasn't possible. That was when I realized that my life's work was going to be telling people that this was possible and in time I realized also that you know, you and I went to naturopathic school, so we had four years of learning to eat, learning to meditate and prioritize sleep and exercise and prioritize exercise and do all the things despite having a busy life and being in medical school and because we were sort of peer pressured into it right, like you have to do this when you're a naturopathic school, you essentially learn how to live healthy. And I realized how challenging this is for people with perfect cognitive health, let alone people who already have declining cognitive health. And so when I kind of put together that like, okay this works most of the time, but it doesn't work when you don't do it Now my my professional shift has been towards how do we make this easier for people to do at home.

And so we have, that's why I created Marama which is the residential care facility where people can basically just show up and we do it all for you. And then where we've had a wait list for the last over a year because we only had 12 beds in San Diego. I'm hoping more people will do something like this and then we're hoping to open more facilities in in 2023 and then the other thing that we're doing is Marama at home, so creating courses and coaching and some tech offerings that will help people just like be able to not have to think too much, think too hard about what to do next, it's just like this for breakfast, eat that for lunch, do this meditation at nine and do this exercise in the afternoon and hopefully that will allow more people to get access to this lifestyle and also the medicine that helps create really optimal cognitive health as we age.

– That's so cool, that is so exciting. So I'm curious Marama, where did that name come from? – Yeah, so I worked with a friend of mine helps with kind of creating businesses and branding and and stuff like that.

So Marama, that word means moonlight in the Maori language, I'm from Hawaii, not from New Zealand but

obviously um but I love kind of just the way it feels in your mouth, Marama and it means moonlight, which and also wisdom and what I love about that is the way I see our care partners, the people who work for our residents of Marama and myself as well is we're guiding the way through the darkness towards that dawn of reawakening and and so and of course the wisdom piece right, like our elders in my opinion, they're sort of the squandered resource in society currently and they're at the height of their wisdom and experience when we need them so much right now to help us find solutions for these complex problems the world faces and at the moment the many sadly, you know many seniors end up in nursing homes where they're parked in front of TVs and fed cake and cookies and cereal for breakfast and a white wonder bread sandwich for lunch and pasta for dinner, there's soft serve, there's literally soft serve on demand, like high fructose, corn syrup on demand in many of these facilities and TVs on every wall and this is the exact opposite environment and lifestyle that helps promote that intergenerational wisdom transfer that that cognitive function that helps our seniors distill what they've learned and then pass it on to the next generation.

And so I just believe wholeheartedly that part of the solution to getting out of the societal mess we're in is is making sure that we create a society where we get the benefit of that.

Marama and a New Model for Brain Health

– I actually got chills when you're talking about that because I we the elderly, I mean in traditions in the past, native Americans in Hawaii and you have all these different cultures that have existed for eons of time and the elderly were a jewel that that we I mean the to be able to gain the experience and the understanding and I mean yes, as a as a young buck, you can read books and you can you know gain you have kind of factual knowledge but then to be able to place that knowledge put it in content and I mean and that's where we have the elderly and and you're absolutely right, I mean we are squandering that resource and that it is so crucial that we focus on taking care of our elderly and give them the respect and give them the sport that that they deserve. And we need that as a society because otherwise if you don't have able to look back and understand history, you are just gonna be floundering around and I feel that we are exactly doing that as a society. – Right?

I read this very hopeful, very encouraging book called Breaking the Age code recently by a PhD scientist at Yale named Becca Levy. And it's really exciting what she, the premise of her book essentially, if you have a positive association with aging, if you look forward to your elder years, you negate any risk associated with genetic Genetic risk associated with ABO B for status. So you can completely get rid of that.

So the population at large has a 13% chance of getting dementia in their lifetime if you have a Bowie too. So that you get one from mom, one from dad.

So you get a two, a three or a four. And if you get a two and a three, you actually have protection. So you only have a 9% risk of developing dementia. If you have a 34, you have a 30% chance of getting dementia. So this is almost a threefold risk of developing dementia in your lifetime. If you have a 442 copies, one from mom, one from dad, you have a 50% risk of getting dementia in your lifetime.

Now Becca Levy says, if you can like channel Betty white, then you don't get dementia. It's amazing. So having these compelling visions of the future where you're surrounded by loved ones, you're in your own home where you're excited, you're, you have great friends and family and things to look forward to.

And you know, you're walking on a bikini on the beach, whatever it is for you, you're traveling all of these fun, exciting, engaging things that make life worth living or what you're doing as you age, then then you don't actually suffer from dementia as frequently. And that's all mindset.

The other thing is that it gives you another seven years on your life. So people have a positive association with aging, live seven years longer. Isn't that wild? And this data comes from a few different communities. One is the American deaf community.

So in most deaf people in the US are born to parents who here and so they end up creating community with other deaf people and there's a reverence for the elderly in that community, just that's the culture that they've created.

And those people live longer and have lower rates of dementia, they also, their hormones don't drop so many of us assume that, oh, as we age, like our testosterone or estrogen progesterone, everything's gonna drop. Well, the testosterone and men who are in the American community doesn't drop. And the same thing happens in Japanese cultures and in Chinese cultures, this kind of Confucius idea of like where we revere the elderly and they only gain value in our society as they get older and collect that wisdom.

So you see that there's, there's elderly men in their eighties that are out of the park's like lifting weights and their buff and like they're super engaged and they're dating and like it's not, it's not the type of decade that people expect here in the US where they're like in a wheelchair watching tv just waiting to die. So there's there's a lot of examples of where we can kind of start to reimagine what it means to get older and how we can do that in a healthy way. – It almost looks like here in America.

We have an American death ritual where we, we start with, you know, certain signs of this and then we start with these medications and we follow that leads to the next layer of medication and just kind of step by step and and it's it's like we are just excess, accepting that as we get older, we are going to deal with heart disease, we're going to deal with dementia, blood sugar issues and we're gonna have aches and pains.

So it's almost like we settle into that reality instead of what you're talking about to look forward and recognize that I am now a strong asset in the community and and my understanding and knowledge is something that people really look towards instead of saying that, well that's old times and that's not relevant anymore.

And so it's such a shift in mentality but we need to do that shift and that's what's so important. – Yeah. I completely reject the premise that life gets worse as we age and my life's work is to just create a totally new narrative and bring as many people as possible with me. – So I mean that's been so I mean dimension Alzheimer's of pandemic. I mean there there are no ifs and buts about it and there's been so much research and so much money poured into it.

Reframing Aging and the Value of Elders

I mean what are they doing wrong? I mean obviously we we we know what we already talked about. – Are you ready for my rant? – Yeah. Ready said go do it. – Carl Harrop wrote a book called How not to study a disease. The story of Alzheimer's like this is a colossal, excuse me, but it is just a short show, right?

Like this has billions literally billions of not only taxpayer dollars but pharmaceutical dollars have gone down the drain chasing this hypothesis. That doesn't really make sense that beta amyloid plaques are the cause of Alzheimer's and dementia. Now I'm gonna give you a few reasons why that's not the case. And I'm gonna start with just basic physiology.

Right? So amyloid plaques are present in 98 to 99% of people, whether they were just born or they're about to die in their centenarians, Amyloid plaques are present in most of the brains.

Right? And if you use amyloid plaques as the, the only diagnostic criteria, you would diagnose 30% of people over 65 with Alzheimer's, even though only 10 of them 10% of them complain of cognitive decline.

So what you have is this mismatch where we're blaming something that maybe is correlated. Of course there's a connection between beta amyloid plaques and Alzheimer's, there's no question about that. That's true.

But a Bowie status actually is more predictive of whether or not somebody will get dementia than their amyloid plaque like burden essentially. And so, and we just talked about how mindset influences a Bowie status and how how high your risk is. So that's one thing to just keep in mind, right? Like the basic premise doesn't make sense when you look at the numbers in the incidents of of this marker, right? And so what we're doing is in much of the science, we've used beta amyloid plaques as a surrogate, assuming that they mean dementia when they actually are not related as as I'm not going to say that they're not related, but they're not related as much as people have have kind of doubled down on over and over and over and over again in terms of spending and and time, right? Not just the money, but the time that's gone into drug discovery around just getting rid of beta amyloid plaques.

So another thing to consider is beta amyloid plaques and tau proteins. To some degree, they are antimicrobial. So when we think about that, what's really going on there is they are there to protect you.

Your brain is kind of like a scar your brain is creating if there's an irritation herpes covid. P gingivallis that causes gingivitis, lime, spiral Keats.

Other skyrockets can go into the brain and basically create inflammation and one of the inflammatory responses is plaque formation. So this isn't there to cause disease, it's there to protect you. And this makes sense from an evolutionary perspective, because all of our ancestors were able we for for positive, it wasn't until you know, relatively recently in human evolution that we started to have these twos and threes. And so when we didn't live as long there, this inflammatory response in the brain actually was helpful.

Right? So those are a few things to keep in mind. The other thing is marketing. Okay, so rewind back to 1906 when Dr. Alzheimer had a Dia Gusty was his patient and she had an early dementia.

So she died quite young and she had a senile dementia is what they called it at that time. And they did an autopsy of her brain after she passed away and they saw these plaques and tangles and that would have been what it was. Right.

It would have been a case study. It would have been interesting. But Alzheimer's had a mentor who published textbooks and he needed to sell his latest version of his textbook. And so he put this case study into his textbook and that doesn't happen in medicine typically right.

Usually you need multiple case studies. You need you need lots and lots of data in order for it to become something that everybody in the medical community takes the time to learn. This was kind of a one off that sort of accidentally or to sell more textbooks ended up in the textbook.

So that made more people more medical people aware of it. And it stayed in the textbook then 19 seventies in the U. S. The National Institutes of aging was created.

And before the seventies I was talking to a mentor of mine who's a medical doctor in his eighties and he was like why do we call it Alzheimer's now when I was practicing we called it senile dementia. Yeah. Good question.

It's because of what happened in the seventies at the National Institutes of aging. A couple of guys were looking for funding and so they went to congress and they were asking for funding.

Why the Amyloid Theory Falls Short

And essentially what they did was they went on this spree to make Alzheimer's equal dementia and, and to make Alzheimer's kind of the bucket diagnosis for any sort of cognitive decline as we age.

And, and when you say it, you know the correct languages dementia because we don't really know if people have, most people have Alzheimer's, but a lot of people get diagnosed with that.

When you say the word Alzheimer's, it puts the fear of God in people, right? They think the immediate picture in their mind is being, you know, losing all of their dignity and being at that stage where they can't communicate. They don't recognize their loved ones.

They need somebody to change their diaper, right? Like this. This is a nightmare for most people. And that word Alzheimer's puts that fear in them. And so it drives people sometimes, um, to fund things.

And that's essentially what happened. And then fast word again. Now the diagnostic criteria for Alzheimer's is based on beta amyloid plaques. There was also a 22,006 paper that, um, that was supposed to be the smoking gun of connecting beta amyloid plaques to uh, to cognitive decline. And this was a mouse study out of the University of Minnesota And we found out recently just in the last couple of months that all of those images that

were used in that paper were fraudulent and not only that, but that paper has been cited 2600 times and used to justify research since then $1.6 billion last year in 2021 for beta amyloid plaque related Alzheimer's research, you hear over and over again.

This has been the refrain for 30 years. If you're not studying beta amyloid, you're not studying Alzheimer's indifferent. – And this kind of shows this highlights what takes place in research and in medicine where you your as a researcher, you're very much controlled by what the dollars are poured into and so you don't have much freedom as to where you'd like to go. You just need to kind of stay in the line and stay in the lane and and say that this is the only thing research and that's the only thing that money is going to be poured into.

And yeah and I agree with you. I mean amyloid plaque and it's the same. I have the same rand with cholesterol. You know, it's the same thing we are cholesterol.

You know, it's just there because of inflammation in the blood vessels, you know, so its not the cholesterol's false. It's inflammations. It's just like with amyloid plaque, it's there to help you against the infections that are in the brain. So to use medication to then reduce amyloid plaque, You're then actually removing your protection against what is really triggering the neuro degeneration which is moving in, I mean inflammation and everything forward.

So in your mind then, I mean it it seems like I know you you kinda briefly went over some of the things that you did with with your with your first patient.

But so we can't just look at Amyloid Black, we gotta look at the whole picture. So what what does the whole picture look like? I mean what what should a person consider when they are concerned? You know, and we can look at it, you know, I'm highly cognitive now, my faculties are 100% but I just don't want to go there. So you have that scenario and and then also you have the scenario where you're starting to feel like you know, maybe I'm not remembering the names of different objects, you know, like you know that thing that you know that that you clean the floor with, you know, when you're starting to do those things.

So what are things that a person should consider when if they want to prevent these this process to take place? – Yeah, great question. Okay, so again, Dr. Bredesen had these great analogies and he talked about my brain a stone.

Like imagine that your brain is a country and if your brain is oriented towards attacking and defending then it's not gonna be able to do the regeneration right?

Like the whole conversation on your summit here, it's not gonna be able to set up that infrastructure, right? If you are at war, you're not building roads and schools and setting down foundations for the future, you are focused and your Resources are headed towards attacking and defending.

And so our whole goal in patching those 36 holes in the roof is that we want to reorient from attack and defend towards building neurons. You know, we want to build all of the connections and the actual nerves and with healthy myelin sheets and and glial cells, we want all of the cells in the brain optimally functioning.

So how do we do that again? This can feel a little overwhelming. But I come from a complex system, science background and um you know, obviously trained by Dr. Bredesen and so what I do is just co at it systematically and this isn't free and it's not easy and it's you know, it takes time and resources, but it is worth it. I have seen so many miracles happen.

And also like just our brain like what is that worth to us, where I know what senior living costs right? Like you that that is expensive. So investing in your brain health early on is much less expensive.

So what we see in our confidence goes up when people attack this early on. So, right, with prevention is harder to prove, but certainly early reversal, we see regularly. So early reversal is best rather than waiting for things to progress and then the more wholeheartedly people dive in fully, right? So dipping your toe and you don't get as much benefit as if you are fully committed to this process.

But it's a lot so and you don't have to do everything to get better. Certainly. But the more you can do the higher than my confidences. So what do we do?

We look at toxins, we look at nutrient balance. So in my kind of complex systems science perspective on this is balance. What we want in the body is balance.

So that's in balance would cause disease and that's too much. Too little in the wrong place at the wrong time. So if we are thinking about the human body, I would argue that there's five or six things that create a comprehensive list of of things that can throw the body out of balance into that too much. Too little in the wrong place at the wrong time and that list is toxicity and I think of those in three flavors.

We have metals, mycotoxins or mold biotoxins and then chemical toxins. We want to just evaluate them. We want to know if they're there. We want to figure out if you have a current exposure and we want to get rid of them.

And then I love that because we can just check that box and move on after that and then nutrients we want to know. Again this is like the resource if your nutrients are oriented towards attacking and defending then they're not going into building your new neurons. So we want to know.

Do you have enough vitamins, you have enough antioxidants, you have enough facts, you have enough amino acids and proteins. You have all the building blocks that you need for neurogenesis and for for neurotransmitter synthesis and and balance.

We need to check on those things and make sure that if you don't we replace them and then stress, we all know someone who you know goes through a horrible divorce and then gets cancer right? Like we all know a story about how stress was clearly linked to a disease process and we we see that too little stress.

So like retiring and becoming a couch potato can be just as bad as going through really stressful scenarios and kind of succumbing to right a lot of this like we mentioned earlier is about mindset, we have also all seen someone go through something horrible that nobody should have to and it makes them like the best person, the best version of themselves and then somebody else who has a similar situation and they just you know fall apart and so we want to orient towards using stress as a way to build resilience and this whole hormedic effect we can talk more about as well. But stress, this is exercise. This is of course mindset, it's prayer, it's meditation, it's brain games right?

A Whole-Body Approach to Preventing Cognitive Decline

If we don't use it, we lose it. So if we our brains will atrophy if we don't engage cognitively so we need to be engaged in a way that we're learning new things, whether it's music or a new job or meeting new people, a new language, whatever it is, we need to um and there's a different, there's a spectrum right where you are in the cognitive scale, you want to engage in different ways so that it's not too hard that you give up, but it's engaging enough that it that it's stimulating your brain.

So we've talked about toxins, nutrients, stressors and then structure. So structure, I think of into kind of two ways. One is the way a chiropractor or an orthopedist would think about it, right? Can you get blood flow from your heart up to your brain and then back out again. Is your hip bone connected to your leg bone or are you in chronic pain because they're out of balance.

So these are things that are going to affect cognitive health. And then also of course sleep apnea is your airway open at night when you're sleeping, can you get enough oxygen into your lungs and then into your brain at night?

Big, big, big deal when it comes to cognitive function, essentially if you have sleep apnea. I don't care if it meets the threshold of moderate or severe sleep apnea, even mild apnea. Events at night are essentially mild brain damage at night, which as a brain doctor is not okay with me and then the other piece of structure to consider is genetics. What we just discussed, right? The a Bowie status and the way I think of that is hopefully in a very empowering way if I'm a Bowie for for positive and my spouse isn't in my you know, my neighbor isn't. I just have to work harder.

I need to get into ketosis. I need to I need to make sure I'm getting my exercise. I can't I need to make sure I treat sleep apnea really aggressively. I need to brush and floss every single day and maybe go to the dentist three times a year instead of two.

Right? So these are the types of things where we want to just get ahead of it. I need to do more to prevent than maybe other people around me if I have that genetic predisposition.

There's also the A. P. P. The amyloid precursor program, amyloid precursor protein and then also the priscilla one and two that are associated with early onset. So not the early phases of dementia like mild cognitive impairment or or subjective cognitive impairment.

But early onset dementia is when this starts happening for people in their forties, fifties and sixties and there's sometimes a genetic component to that.

And again we want to we want to do all of these things more aggressively to prevent that risk from from turning on basically those genetics from turning on, we have a lot less data around those genetics but certainly it's something that I hope to learn a lot more about over the course of my career.

And then the fifth one is infections. So I mentioned these infections that we know are associated with more with cognitive decline and they're essentially the ones that directly increase inflammation in the brain. So this is herpes and we have some good epidemiological data out of Taiwan. And so I'm a naturopath right?

Like I'm not quick to jump to prescription medications but if somebody I'm treating has a history of recurrent herpes outbreaks, cold sores, you know or genital herpes whatever I will prescribe the prescription of antivirals and have them take them aggressively to prevent because we can see that people who treat those viruses aggressively have a lower incidence of dementia and we also see that when we do autopsies those amyloid plaques contain herpes virus, Lyme, Spira, Keats, P Gingivalis in and also pneumonias in them.

And so it's important to I believe treat those aggressively and and so Lyme because you know this is a whole can of worms, right mold and lyme kind of in our world they become people specialize just in those things but we want to get ahead of them because you're a lyme is very real and can lead to dementia like states.

And so and also of course that plaque formation. So most of the time with infections we live in the in the first world country, you know things are pretty sterile, most of us if our stressors are nutrients are toxicity and our structure is balanced, we're going to do okay.

Our immune systems are going to be able to go to bat for us and we're not going to succumb to an infection. But if we have imbalances in those first four, then often the immune system is suppressed and we need a little extra help to get up and over that that infectious burden if you will. And so we certainly screen for that and test for that. And then there's the sixth category that I think of as signaling. So what are the signals going to ourselves?

How our cells being told to behave? And this is the category of hormone replacement peptides. Maybe Exxon's own stem cells. What are we providing in terms of regeneration?

Right, so I usually take care of those 1st 5 1st, 1st 5 first right? Toxins, infections, structure stress um and nutrients, we take care of those so that you're not in defend and attack mode. And then once we have that all wrapped up we switch to regeneration and you know something obviously it's not that black and white were often doing bioidentical hormone replacement right away kind of depending on the patient but we want to enhance the signaling to ourselves to tell them make more make new and let's get rid of some of the old ones um that aren't you know, senescent cells, I'm sure that you've talked about in essence on on this program plenty.

So this idea that there are cells that are kind of like ready to go but not quite gone and we want to kick them out and then start that signaling that tells our bodies and our brains to create new cells that do optimally function. So that that's kind of big picture overview of how I approach this.

– Yeah, I mean it seems I mean for somebody that that is new for it seems like a lot but it is I mean just like you're saying is to create kind of like a checklist and and by going through step by step and each step that you are doing your obviously um freeing up resources that you can use and for regeneration and for fun, you know, better functionality. So every step in the right direction is a step in the right direction and and so but then going through the checklist, you know, like you're saying look at the infection, dental infections, you know what what kind of toxicity am I exposed to.

And a lot of people say, well I haven't been exposed. I have had a desk job. I haven't been exposed to anything. But it's amazing when you do these different labs like you're doing what to find out and and and by then really doing that investigative work and then clearing out these stressors.

I mean that that is is so huge. So I'm curious. You know what type of labs do you use? I mean obviously there are a lot of them out there. I mean are there some that are your favorites?

That that really kind of pinpoint these these issues. – Yeah we do a lot of lab work and again like this takes resource like it's it's not free but what I the worst the most heartbreaking thing is to do some of them and then wait a year and be like why are we not getting better? And oh my gosh it was in that $300 lab like we could have known this 12 months ago. And so I really encourage people like even if you need to save up a little bit do, I'm a data person like let's just get all the data let's know what's going on. Let's have a sense.

And so what we do is we call it a full female panel. So we are full male panel right? We run thyroid extensive you know there's eight or nine thyroid markers that we do like most and functional medicine.

– That's more than just TSH. – Yes please. Oh my God we run advanced cardio metabolic panels L. P. P. L. A. 2 which can give us some insights into into oral health were running of course like our nutrients vitamin D.

B's. And then we're looking at a female and male who hormones P. S. A. For men were looking at complete metabolic panels where, what else is on that? You know it runs the gamut so it's like what your conventional doctor would do but on steroids it's usually how I look at it.

And then also with A. P. The O. E. Excuse me. And then and and a. And an anti nuclear antibody which can kind of screen for some of the um the autoimmune diseases. So we want to understand what the immune system is doing at a high level and then toxin. So I mentioned the three flavors.

So I prefer real time mycotoxin testing. They're my favorite the urine mycotoxin test. And I do provoke it with glutathione depending on what the patient can tolerate.

Sometimes we'll do IV glutathione and sometimes we'll do oral and if they don't tolerate glutathione at all we'll just use a hot bath or sauna or something.

And then collect first morning urine. So it's most concentrated some of the people who are sickest. It's because they can't get rid of it right there hanging on to those toxins. And so they won't show up in the urine unless you kick them out. So we want to make sure that those are provoked in my opinion. And then the second what I do is you don't mind if I use brands right? I mean I love these guys they're so supportive of us. So Quicksilver does great heavy metal testing in my opinion. I don't. Provoke.

I was taught to provoke. I did lots and lots of population for the I would say still the majority of my career I've done inoculation to help with heavy metals and had done the doctor's data provoked urine heavy metals.

I have switched to Quicksilver because of my patient population they're older. Many of them are postmenopausal women and so I really try to stay away as much as possible from the ivy calculation even on provocation just because of their bone health.

And because I think that Quicksilver does a really good job. And we also end up doing that more with treatment as well. We try to do the oral the I. M. D. Powder helps a ton with mercury And so I follow Chris Shade pretty closely

on that and and I'm just so grateful that there's a way to do it.

That's much less expensive that I what I found clinically is that it's equally as effective. And is much less risky when it comes to bone health and mineral balance.

And then the third one I run through Great plains is the chemical toxin panel. And part of the reason why I run the labs that I do is just cause I'm used to looking at them right? So my part of the value that you get from seeing me as a doctor is that I look at a ton of these and if I look at different ones from different labs. I don't have as much experience, right? Like we're talking about wisdom and experience of our elders. I've been doing, you know like you I've been doing this for you know years and I look at so many of them, I have a sense of what's normal and what's not and that's not always super clear just based on the ranges or this or that. And so I can get a sense and say when I read the GPL toxin panel, like that's not normal, but that is even though it's in the 75th percentile, everybody in southern California has petrochemicals that are there.

That's just the reality, we can't really do a whole lot about it.

Lab Testing for Toxins, Infections, and Nutrients

But okay, let's look at all these other things. So that's in your water. We need to check your water, we need to get you switching your water wherever you're getting at your source. You can't drink tap water, your clients off the off the chains. Right?

So those kinds of things I think are helpful in terms of working with the doctor who has experience, it's like okay, what are your favorite labs? Why? And some of some of the answers because it's just what I'm used to looking at. And if you make me look at this other one, I just don't know where it fits into the realm of normal.

But not always. So then other labs that we like to run. If we run a Genova neutral evil. I love that test. It gives us an organic acid test as well. So we can get some insights into gut health into heavy metals are on there too. It's not the best test for heavy metals, but if you're strapped for cash, the neutral evil is a lot of, a lot of information um, for for what you get there.

And then we also tend to run the cyrix or a 12 panel which is cast a wide net. Just looking for infections. This is not the best test for infections by any stretch, but for the cost and for the amount of tubes that you have to draw for blood, it is really a great way to get a sense of what is the infectious burden for this human in front of me. And so if there are things popping up, typically we'll try to treat them for about 12 weeks and then we'll rerun it.

If it's not normalizing, then I'm gonna start running hygienic panels or infected labs or some of the more costly infectious labs um, to get a better sense of what's going on.

I also really like t labs. If we're before trading lime, I follow a lot of robert moses Danny's work and just kind of follow his lead on that because that's where I tend to get the best results. I also have been trained by Dr. Bill Walsh and he popularized orthomolecular medicine along with Karl Pfeiffer and they have not a lot of their researches on schizophrenia, bipolar, depression, anxiety, autism. But there is some of that work that relates to dementia and zinc and copper ratios. You're in crypto pie rolls.

And then histamine levels, homocysteine levels and methylation status, not at a genetic, not from a genetic perspective, but from a fanatic pick perspective and a nutrient perspective.

So I do look at those and really appreciate him and his work. Mental health, depression and anxiety set us up for dementia. So they're almost two sides of the same coin. If we have depression, we are at much higher risk of developing dementia later on in life and we see hippocampal volumes shrinking, right? So the memory area of your brain is actually smaller in a depressed person. And then with anxiety, like many of us have been in that situation where like stage, right, right? Like you get up on stage and you can't remember what to say or somebody who your boss comes in or whoever you have a crush on, comes into the room and you can't remember what you were going to say and you have your in a sweat, your brain isn't working because you're in a fight, flight, freeze state.

And so if you're constantly there, your brain is really not working. And we want to do everything to keep you in that that rest digest heel state where your brain functions more optimally and those neurotransmitters are in better balance, there's other testing we do to let me think of my list.

We talked about why rex oh, G. I. Maps of course we run um still testing on everyone because I have so many people who say their normal G. I. No complaints.

And then we look and there's like giardia and I'm like what I never would have predicted this but we need to get rid of it or there's inflammation or there's something else that is probably inhibiting other things in their body. And sure enough when we treat it, things tend to get better. So um so we do run those regardless of symptoms and get a sense of what's going on. And then for some people we'll run urinary neurotransmitters. Some people will run more extensive infectious panels depending on their experience. And then also we'll look at adrenal health and using salivary cortisol levels. Sometimes depending on kind of to what degree stress seems to be playing a role or how depleted they might be.

So that's most of them. – Yeah and that's the thing is that recognizing and I know this has been talked a lot about but it's always important to make that point. You know the the correlation between what's going on in your gut inflammation, you're gut and in your brain.

So if if you have giardia or if you have you know maybe you don't have digestive issues but there's going to be inflammatory signaling that's impacting your your brain.

So it is crucial to look at those components. – And it's our primary detox organ, right? So if there's something dysfunctional about the gut and not only not only is it detox is that letting go of what doesn't serve us, it's also so we need to be able to make sure that that's that's working otherwise we're accumulating toxins. But also it's you know deciding what does serve us. So choosing to eat the right foods, are we digesting, are we assimilating each of those pieces is so critical to making sure we have the building blocks that are necessary for good brain health.

– And so with so we, and like like you said, I mean the the brain requires, I mean we're sitting I think we're utilizing about 50% almost of all the energy production goes to your brain. I mean so it the brain requires a lot.

So if you have all these stressors as impacting the brain then obviously like you said the resource is going to be fighting all those stressors and you can't use that energy for regeneration but also just normal function. So now when we removed all these stressors and then start to look more at the kind of regenerative.

I mean a lot of people think well I'm old, I shouldn't have estrogen, I shouldn't have progesterone, I shouldn't have testosterone D. H. A. And all these different things.

How important are those hormones for your brain? So – I have seen too many especially women but also men they come into my office and initially they just seem like little wilted flowers and then we get them on hormones and like their blossoming again it's just so fun to watch and I don't I know there's a complex conversation to have around this. It's very confusing for a lot of people.

I had a patient yesterday and she was like every time I tell somebody I'm an estrogen they tell me I'm gonna get cancer. Right. So I get that there is a very um this is a conversation to have with your provider, right? And it's a risk benefit analysis and it's different for everyone.

My opinion. If you have any risk for dementia, if you're noticing any cognitive decline, your benefit probably outweighs your risk of getting cancer. And these hormones.

The data from Europe where they've used bio identical hormones. So there's a couple, there's a couple big ideas here. Big concepts won the Women's Health Initiative study.

That was you know it was ended early. It was stopped early because more women were dying of breast cancer and cardiovascular strokes and and and cardiovascular incidents?

They were on non bio identical. So they were on equine estrogens they were not on bio identical hormone replacement and they were on oral estrogen and progestin ins so they weren't bio identical. So they're not the same thing.

Yes, they both have estrogenic activity but just like plastics have estrogenic activity, right? Just like mocha or don you know like we have phyto estrogens, we have chemical estrogens from the from the environment toxins and then we have our endogenous estrogen and the hormones that were used in the women's Health initiative study were these exogenous non bio identical hormones.

So they're not the same thing. They create a different cascade of events in the cell than what bio identical hormones do.

Hormones, Peptides, and Regenerative Therapies

So the bio identical hormones that we are that you and I would use that any natural path would use any functional medicine doctor would use. They're not delivered orally, they're only delivered topically.

So through a patch or a cream. Some people use pellets and um these are we have pretty good data from Europe about the safety of of these bio identical hormones.

And what we see is they actually in increased lifespan and reduce your risk of developing cancer or heart disease or osteoporosis or dementia. And so they are protective in many many ways Now if you have a cancer.

So here's the caveat and this is what people like. There's a reasonable risk here to know about and to understand if there is a cancer present and it is it responds to it has estrogen receptor positive progesterone receptor positive testosterone also promotes growth. So those those hormones that's what we want, that's why we're using them because they promote growth.

They will promote growth of that cancer. So the cancer will grow faster. So what I require in my practice is some sort of breast imaging. Not everyone is comfortable with mammography but some sort of M.

R. I. Ultrasound. Certainly breast exams, self breast exams, clinical breast exams. Every single year we're looking we're taking a picture of your breasts and making sure that there isn't a cancer present. If there's ever a concern, we stop the hormones until we figure out that it's not cancer.

And then we start you right back on them once you're clear and that has worked so far. Now if somebody has is Bracha positive and hasn't had a mastectomy then.

Or if they have a personal history of cancer, they have a strong family history of premenopausal breast cancers. That's a different risk benefit analysis.

Right. If you have a family history of dementia, if everybody in your family had dementia, nobody's ever had cancer, it's the opposite risk benefit analysis.

And so talking through that with a provider who is well versed in the data in the science and in using these in a very safe way I think is what I encourage most people to do.

But overwhelmingly I think that they are protective not risky. – And to kind of reiterate your point in regards to the synthetic hormones. I mean so we look at hormones.

They're like a key that fits into lock and and it needs to be an exact key to open that lock. So if you do a synthetic version of it, it's a key that kind of fit but not really. So you're not gonna have the same effect. So now you have these kind of hormones that are not benefiting your yourselves that much, but they are triggering other responses in the body that can then grow things like cancer and grow.

So it is a quite dim different conversation when you talk about by identical, like you said versus than the synthetic version. – So my patients appreciate this analogy. So if you take like a breast cell for example, that's the one that we're most concerned with. And you think about estradiol, the type of estrogen that our bodies make cycling, female makes plenty of estradiol and this is more systemically active. So it sits down on one of those receptor sites.

Like you're saying like it fits that that key in the lock and it's called a cascade of biochemical events. Right? So I think of it like a pretty tropical waterfall.

It's very it's predictable. It's lovely. It does its job, it gets things where it needs to go and you you don't have hot flashes, you're feeling good, Your skin looks nice and that's that's our estrogen that's bio identical estrogen exactly like what you would have made in your ovaries and then there's phyto estrogens and this is like turning on the tap. So phyto estrogens like maca, dong chi, soy hops, there's a bunch of them, but those estrogenic phyto estrogens, so there are plants that have estrogenic activity.

It's almost like you've turned on the faucet, right? So it's not a waterfall. It's just a drip of estrogenic activity. That cascade is a drip instead of a waterfall. Now, if you put in that lock, if you put a xeno estrogen, this can be birth control pills, this can be the non bio identical hormone replacement, This can be cooking plastic, cooking your food and plastic, right? If you put those estrogens in that lock in that keyhole, then what you get is a destructive flood of events.

It's unpredictable. You don't know what's going to happen. This is what leads to cancer, but they're like seats on a bus so that that lock or like a key in a lock. Once you put one in there, you can't put another one in there. So if we can take up the place those those receptor sites with phyto estrogens and bioidentical estrogens, then it's less likely that those xeno estrogens are gonna sit down in that seat and then you get some protection from from those um those chemicals that can lead to cancer later on.

And I think I'm totally hypothesizing. But I would expect that that's part of the reason why bio identical hormone replacement gets you some protection against all cause mortality and cancer incidents. – And then like I said I mean studies show that the bio identical that you are less likely to develop cancer if you are protected that way.

Kind of final point before before we. And so peptide. What are some of your favorite peptides for nerve regeneration? – I love peptides. I wish that they were more widely available, especially in California. It's such a nightmare trying to get them but see like see max cerebral license all day long. If I could use that on every single dementia patient I have I would they are expensive and they're hard to come by but I love ivy cerebral license. I gosh given given my way I would do that for everyone. The other ones I really love especially if we're not talking regeneration. So C like C max and cerebral listen are going to be more for regeneration for calming the nervous system or excuse me calling the in the immune system ta one I love like Simonson alpha one symbol in BPc all day long for healing the gut and for balancing the immune system.

I love peptides. I really wish that we all had more access to them and that it was a little bit simpler. Unfortunately hopefully by the time this comes out there will be more access to better peptides and everybody will be able to disorder them. For the most part the oral ones don't work great. They really need to be injected.

Think of insulin, insulin is the O. G. Peptide most people are aware of peptides are you know somebody's used this analogy of pearls on a strand. It's a strand of amino acids that signals and tells your cells how to behave and so we want to send those signals to behave like young new cells and make those new connections and I love them as a tool. – Yeah they're awesome.

And Dihexa have you played with Dihexa a little bit? – Yeah and some of the other mitochondrial, epithalen. Yeah there's a bunch that we've played with and yeah enjoy I just I wish they were easy to get.

Closing Thoughts on a Regenerative Future

– I and that's it's so frustrating you know because here you have tools that are extremely safe extremely effective and they're highly regulated and and it doesn't make any sense to me but we there's so much that doesn't make

sense and here we are.

– They're a little anxiety provoking when they come in a box that says not for human or animal use. – Yeah. Yeah exactly. Well Dr. Sandison thank you so much. Thank you so much for the work that you're doing. This is highly needed and we need to shift our mindset to a regenerative and joyous age where we know that we are respected we are a resource and we we need to then take care of our bodies in such a way so that we can become that resource where the next generations can lean on us as we age and and feel comfort in the experience and the history that that we have lived as we get older.

So I think it is a responsibility from all angles, you know, for both the young ones and for the people that are aging to take care of themselves so that they can be there for the next generations.

– Absolutely, I couldn't agree more. I'm so grateful to you for putting this summit on. It's gonna be such a treat for everyone to listen. I'm sure they're going to learn tons.

Thank you so much for having me as part of it. – Thank you so much.