Can Dementia Be Reversed? Dr. Kat Toups Shares Groundbreaking Insights Transcript

(Transcripts are generated by AI and may contain errors)

Introduction to the summit and Dr. Toups

Hello and welcome to another very special interview for the Reversing Alzheimer's Summit 4.0. I am one of your summit co-host, Doctor Christine Burke, and over the last decade, I've helped many patients reverse their cognitive decline.

And that is why I have co-founded Two Nura, a brain health software company, to help patients and practitioners be extraordinarily successful in this work.

In this summit, I'm bringing you interviews with thought leaders who can help you understand the pillars of brain health and the root causes of cognitive decline.

I want you to learn what you need to know to prevent and reverse cognitive decline and Alzheimer's disease for yourself and your loved ones. It is my great honor to introduce you today to my friend and colleague, Kat Tubes, MD.

Doctor tubes is a functional medicine psychiatrist and researcher using multimodal approaches to treat cognitive impairment and dementia, combining the best of precision functional and regenerative medicine.

She is a Distinguished Fellow of the American Psychiatric Association and certified by the Institute for Functional Medicine. Doctor Cat has been practicing psychiatry for 35 years and functional medicine psychiatry for the past 14 years.

She's been a featured speaker at national and international medical conferences on dementia and functional medicine, psychiatry topics, as well as a frequent guest on podcasts and summits.

As a prolific researcher, she's been the principal investigator on over 100 clinical trials, including her collaboration with doctor Dale Bredesen on the pioneering work using functional and precision medicine to reverse cognitive decline and dementia in their first groundbreaking trial.

84% of the study participants had improvement, including improvement even in their MRI head scans. The first study paper, Precision Medicine Approach to Alzheimer's Disease, a successful pilot project, was published in the prestigious Journal of Alzheimer's Disease in July of 2022, and already has garnered 68 citations on Google Scholar over just the past two years.

Two additional papers have also been published from that study. Work. We are now hard at work on a larger, randomized precision medicine clinical trial at six sites across the country, and I am honored to work under Doctor Toups as our lead investigator.

The goal is to replicate and expand on the findings from the first study, and there is some exciting data already coming out. Doctor Cat is also the author of an upcoming book, Dementia Demystified.

But while you wait, you can access a free copy of her Decoding Dementia e-book on her website, Dementia demystified.com, and we'll circle back to that at the end.

Doctor Cat, my dearest friend and colleague. Welcome. Welcome to the summit today. Thank you so much for having me, Christine. And, it's really exciting to talk about our shared passion.

Right. Which is helping people to understand that dementia is not only preventable, but can be reversible if we can help people early enough on the path.

So, I am so happy to be here and, definitely excited and, you know, looking forward to talking about the clinical trial that we're working on now. Maybe I should say a little about that trial.

As, Doctor Christine Burke said, she's, you know, one of the investigators in our study, we expanded it from the first study. So the first study was kind of, you know, a pilot trial to, to show that what we do is and can be successful.

We had three investigators in the first trial and 25 patients. So we've expanded this one. We have six locations around the country, and, we're, enrolling.

We have finished enrollment. We just finished enrollment, with 72 patients. And more than half of our patients are actually now through the trial. And so we can, you know, perhaps see some things about some of the kind of results for having.

Overview of the randomized clinical trial

But we've also incorporated some new things in this trial that we didn't have in the first trial. So, you know, I, I'm hoping we can talk about some of that.

And, and we're continuing to learn new lessons from our trials of what works, what doesn't work. You know, how can we better support people? So, that's where we are right now.

And I guess I should say so this trial is considered a randomized trial, meaning patients are randomly assigned into two different treatment groups, and two thirds of the patients receive the active functional medicine precision medicine treatment.

And one third of the patients basically are called we call them the delayed treatment group. So we asked them to just do standard of care neurology and their approach, which unfortunately for the most part, other than looking at a few, issues, typically people that are having mild cognitive impairment or early dementia are just told, okay, take care of yourself.

Eat right, sleep right, exercise, and come back in a year and we'll see if you've gotten worse, in which case we'll prescribe a medication for you that won't cure you.

So, so, yeah, it's been interesting, having the treatment arm, it's so, so hard for us to have people not do anything. And it's a nine month trial. But we do have a reward for the patients that are willing to do that, because at the end of the nine month trial, we offer them six months of active treatment with all the same coaching support, supplements, testing, input from the physicians that the treatment group got.

So, you know, everybody gets a chance to be treated in our trial. Yeah. That's been one of the really gratifying things because it is so hard when people randomize into the delayed treatment and we all have to sit on our hands for nine months waiting for that time to pass.

You know, there's a couple of things that I wanted us to touch on before we get to the exciting part, which is talking about some of the results that we're seeing there.

There, as you mentioned, there are some things that we're doing differently in the randomized trial than you guys did in the pilot study. And, you know, some of that is around mold testing and a few other things, maybe talk a little bit about what was learned in the first study that, you guys, you and, Anne Hathaway and Doctor Deborah Gordon, all of you decided would be important to either change or incorporate into what we're doing this time around.

Well, you know, I think the, the most important thing that we have learned is this is a really hard protocol. It's hard for people to incorporate so many changes so quickly.

But I do feel like it's imperative that we test everything upfront, that we find out what the treatment targets are. And, and then, you know, sort out how we're going to go about fixing all these things.

And so I the approach for me of let's test a few things and then let's test a few more and let's test a few more. I don't think that works because people are racing the clock when their brain is starting to degenerate.

So, it's a difficult protocol. But the biggest thing we learned is when we do everything together, people can shift so quickly. But because it's so difficult in both studies, we've incorporated a high level of support from our coaches.

And I think that is an important message for everybody trying to incorporate some of the protocols for reversing cognitive decline. It's very, very difficult.

Even if your brain isn't starting to slip to do this. So, you know, we in in both studies, we've kind of had a dream team. We have a health coach, we have a nutritionist, and we have an exercise coach.

And so having all of those coaches work on various pieces of the puzzle to give support for those changes that need to be made. To me, that's the biggest takeaway is, you know, get support and have a support team to help you.

Yeah, I would agree. I think I agree 100% with everything that you just said, because it is so important when we are already dealing with cognitive decline to hit the ground running and to do as much as possible to try to pull the reins on the galloping horse, if you will, because we know that the progression of decline can really accelerate once we hit a bit of a tipping point.

And so we want to try to pull them back from that. And the coaching is invaluable. There's just a lot of support that's needed and not, I think, just for the patient or the subject, but also for, in our case, the study partner.

Lessons from the pilot study and coaching support

But you know, in the general clinical world with the, you know, the the marital partner, whoever it is that's helping them, like there's just a lot of support that's needed, right?

I mean, it's a rough time emotionally when you're dealing with cognitive decline. And both parties certainly need need a lot of support. When you touched on one of the things that we're doing differently in this study, and that's the mold component.

And I think that's an interesting component for people to understand and try to wrap their heads around, because, of course, mold is ubiquitous and there are a lot of molds that don't make us sick.

But there are some types of molds that make us sick, and in particular, because they're inhaled through the nose, they can go straight up into the brain.

And certain strains of mold have been clearly associated with neurodegenerative diseases. So, the the mold part was a problem for us in the first trial.

A couple of the few patients who didn't get tangibly better turned out to be living in some moldy situations and didn't have the means to move or remediate.

And, one of them in particular, was Doctor Anne Hathaway's patient, and we saw photos of the mold all over the walls. It was quite severe and just heartbreaking that they couldn't get out of there, but eventually they prevailed after the study was done and the landlord did fix it.

And the word that I heard was that that lady was doing better now. So that was super exciting. So we've got round and round on how do we handle this mold problem in a study?

And so what we decided to do is first at least get an assessment of the problems the patients coming in consenting to the study agreed that they would allow us to test their homes for mold and that, in order to stay in the study, if they were inactive treatment, they had to agreed to either treat the mold and remediated or move for the study

because we just feel like we're pedaling upstream.

If somebody is, you know, getting exposed to toxic mold, and no matter what we do, we just can't get people in that situation better. So, we had training for our health coaches and help study coordinators, as far as how to properly test someone's home.

And the general gist of how to test your home is just everything. Wait two weeks. So the fresh test comes because you don't want ancient dust, because that wall over represent the mold counts, and then you collect as much dust as you can on the Swiffer dust course that come with the, test kits.

There's a couple of different companies that do that testing, and people can just so order that testing if they're interested in doing it. And in this study, we used a company called Liz Biotech Liz and then biotech and and a previous study, we used a company called Michael Metrics.

So they're using very similar modalities to test. It's called an Army e r Army, and it's talking about your general moldy mold illness index in your house.

So, our health coaches went and collected the data. We sent that in, and then we got the results on people. Well, this was one of the hardest things for the delayed treatment.

When we saw that people had very high mold counts and we weren't allowed to tell them, that just broke our heart. But they got to get out of jail free pass for nine months.

And then we tell them and try to support them around that. So, that's been an interesting issue. And it's, it's we still don't have that sorted. We have a very short time, nine months.

People have to get their house inspected. Figure out what needs to be remediated. But, I have seen it make some difference, when people did that. So it's an ongoing thing.

It's not an easy thing for us to do in the context of a study. Yeah, that has been challenging on a number of levels. But remarkably, we've had a tremendous amount of compliance with the study subjects acting on it.

Maybe not sometimes as quickly as we would like, but acting on it and and making a difference. And we really do see a difference when that happens. In fact, we I don't know if you recall, but we had that one subject that had applied for the study at my site.

And when the health coach did the evaluation of the home, there was really bad an apparent mold problems open part of the roof. And, and the test, that Army test came back and astronomically high, and we decided as a group that we could not ethically allow that person to potentially be randomized into the control group or into the delayed treatment group and not know that they had this, you know, extruding exceedingly dangerous level of mold in their house that I remember as grappling with that and having a really hard time making that decision.

But none of us felt right. Like, you know, elevated is one thing, but just massive exposure levels. We just ethically felt like we we could not go without telling them.

Right? Right. And that makes me think of another thing that's come up in this study. So having our group B patients, or delayed treatment group A patients, sometimes they have to do things medically.

And obviously we can't ask them to withhold any necessary medical treatment. Right. That would it be ethical at all. And so I had a group be patient who is physician said, you know, your B12 is kind of low.

It's still in the normal range. And, you know, some people wouldn't treat it, but I think we ought to treat it. And so we decided as a team, well, some neurologists might give some B12.

So we'll let him take it. So he and he was it was at the bottom of the range. I would have treated him immediately in

active treatment and gotten that level up.

And so his physician started him on B12 supplements, and he gained two points in his Moca. So the Moca is a Montreal cognitive assessment, and it's the battery, the that we do of the cognitive status of people.

Mold exposure testing and remediation

Well, two points is a significant gain. So he gained two points. Then the next thing came up that his doctor said, well, let's test you for sleep apnea.

You know, that could be associated with dementia. And I couldn't stop his doctors from treating him right. That that is an ethical. So it turns out this gentleman had severe sleep apnea.

And of course he needed treatment immediately. And as part of our study, we actually test everybody for sleep apnea. We test them on three separate nights.

And so he would have had testing with us when he finished the first part of the study. But it was done. And of course he needed to go on CPAp. So what happened?

He got two more points at his Moca, so now he's got up four points on his Moca, which is huge. And you know, you could see that that he was also that definitely translated into him doing better in his life cognitively.

But I have to say that once he got into active treatment and then I was able to treat even more things that turned up on his treatment targets, he's improved some more.

So, he's more better his life. But, that's been an interesting thing. And of course, for me, it was instructive to see because typically, you know, I'm trying to fix everything at once as quickly as I can, but just fixing even this low hanging fruit for him translated, I mean, he still had a ways to go.

So, you know, that wasn't the be all and end all. But those were wonderful interventions. And so it does underscore to me the importance of testing all of these various things, including that sleep apnea.

You can be a thin woman and not snore and still have sleep apnea. So it just needs to be tested for everybody. Yeah, it really does. There have been many surprises in that testing.

Yeah, yeah. Now, something else that's new that we did in this study and it's just new everywhere, is that we are testing brain biomarkers. And, you know, these are labs that are drawn from the blood, but they're telling us about, certain, elements that indicate degeneration in the brain.

So a lot of people are familiar with amyloid and the the serum amyloid levels came out, just a couple of years ago, 2 or 3 years ago, I'd say. But but now, it's become easily and commercially available to test the PDL levels or phosphorylated tau levels and the P tau levels actually correlate really well with doing a lumbar puncture and looking at the amyloid and tau levels in the brain.

So now we have this nice biomarker that can tell us, something is going on in this brain. And, and we didn't know what's going to happen with treatment when we get better, can it not get better.

And so it's been an interesting learning curve with that one. One of the things we learned fairly early on from one of my patients is at the three month mark this guy had his memory was testing in the 95th percentile at three months.

And it was down there in the 30th percentile or lower back. I mean, he he did marvelously so quickly. And so I asked Doctor Bredesen for permission to do the testing on the brain biomarkers at three months, because we weren't going to be repeating them until six months, because they're not inexpensive.

And, you know, we don't have infinite money for our study. So he said, yeah, let's see what happened. So we got

his p town level that I was thinking might come down, but no, it went up quite a bit.

And one thing we learned then was that the levels can be falsely lowered when you are obese or have extra weight, and this gentleman lost 35 pounds in the first three months doing the ketogenic diet and the exercise and all the components of our study.

And so the thinking has been, oh, all that weight loss unmasked it and the levels came up. And by the end of the study, he he was coming down again. But, you know, there's some other patterns that emerge.

We don't have all the answers on this. It's the learning curve. But one thing that Doctor Rennison has, told us about is he thinks that PTO levels can elevate when your brain is degenerating, but he also thinks that they might have the capacity to elevate when your brain is rapidly regenerating.

So actually, what was happening clinically for this gentleman. So I think the time mill time will tell. Like I'd like to repeat those six months out, when he's, he's now done with the study.

But you know, later so that we can see what is happening with that. But we've done some other interesting markers, and, we're just starting to get some of those back.

Now, there's two other brain markers. We use a company called Neuro Code and physicians. If you're a physician, you could ask them, could you? You know, set up an account with neuro code and order this for me if you'd like to do it. But, there's two other markers.

One called an NFL for short stands for neuro filament light, and the other one is called a g f a p, which is a real February acidic protein. And these are both other markers of of neuro degeneration.

And sometimes different neurodegenerative disorders will elevate one but not another. So it can be helpful. In some cases to look at all of these. But one thing that I've incorporated now into my clinical practice with my patients is I really do think that.

And I believe, Christine, you're doing the same thing that that everybody when you turn 50, you should just get a baseline Patel level. You should know, are you fine or is it already starting to show something, in which case you're going to need to step up your prevention a lot harder?

And, it was just useful for me and a patient that I worked with for over ten years on prevention. She has two copies of, I believe for her father had Alzheimer's.

So obviously she's got a strong genetic risk and she does everything great in her cognitive testing. She's brilliant and it's still brilliant. But I got a PTO level and it came back in the intermediate range.

So, you know, I said let's like we just met. Let's go back through everything again. Let's make sure, you know, retest things, make sure that that we're doing everything we can to not let this progress.

So well and I think to the other thing that you and I both found because I remember us talking about it was early in the study planning, we were offered the opportunity to have our own testing done.

And I remember when you and I were both you know, anxiously awaiting your emails, anxiously awaiting our results.

Sleep apnea, B12, and other treatable factors

And it it is very reassuring when you get that negative test result to know that, that you're doing a good job, that what you're doing is helping to keep your brain healthy.

And it's not just that one point in time, right? Over time, we want to check it repeated leak. We don't know yet what

the optimal interval is, but it is really reassuring when that comes back at it at a nice low level.

Right? I mean, I think if you're great at 50 and you don't have any symptoms and maybe five years, you know, recheck it again, something like that. But if you're a little bit elevated or you have symptoms or you have genetic risks, then you might want to follow it more quickly.

So, so more story to be written on these other markers. I have a spreadsheet looking at the patterns with my patients and which ones did what. And, we also circled back and added on that amyloid levels, because of the conundrum of the cow doing things that we didn't expect.

And I have to say, the amyloid levels are correlating very nicely in my patients with active treatment versus not active treatment. They definitely all seem to go in the right direction of what I would have expected.

So, you know, that's an interesting option. And that is available at Question Lab for to do the amyloid testing. So, I don't you can't just make a diagnosis on any one marker.

You've got to look at all these things. But if you get an elevated level, it should hopefully motivate you to do things. And we are seeing them, you know, for people responding, some of the people are coming down.

So it's a worthwhile marker for people to do and know about. We're also testing Bdnf levels. Brain. Can I can I interrupt you just for one second? I1I just want to make a point that something that you say all the time that I think is really important in the context of this piece of the discussion, is that dementia is not a death sentence.

And I know you have said that many, many times. I have operated into my own heart. And I think that one of the things that keeps people from doing these markers is that I don't want to know, because their perception is that the only way is down, and that we really want to make sure that people are getting this message of hope, that knowledge is power, that we can change the the trajectory of this disease.

And that's just a, I think, an important piece for us to bring in, right? In that delivery. I thank you. I incorporate that in every talk. I mean, that is the whole, you know, reason that I spend efforts to give talks and teach people is, is people need to know that this isn't a hopeless situation.

And if you have any interest in knowing my situation, just put my name in YouTube by my YouTube channel. I have a five minute talk that talks about how demented I was 15 years ago.

And, and this is what brought me to functional medicine in the first place. So I would probably be dead by now. I mean, it's usually a ten year course from when your dementia starts, and some people, it's a lot, a lot faster.

But, I can, you know, if you hear the severity of my symptoms and where I am now, I know what people hope, because if I had not learned functional medicine and sorted out how to save my brain, I really wouldn't be here.

I would have been in a nursing home long ago. So, So it is great tiding and we have so many stories of, you know, people that have completely resolved their symptoms. And, you know, it's a, it's a whole spectrum, you know, but the reality is that, when you do this right, everybody gets improvement.

Make it. And I mean, and I say, do it right. Because, again, there's a spectrum of what people do. And it's so important to test certain things. Like what I think a lot of people are missing that just work with coaches and not with physicians are the infections.

There's a lot of infections that can impact your brain. And and I think the whole world has seen what the virus does to the brain because of Covid, right?

I'm sure everybody at this point knows somebody that developed brain fog or cognitive symptoms, because it's such an issue with Covid. And so it's not only Covid, but we were already testing all kinds of other viruses that are known to impact the brain.

Herpes, especially herpes simplex one. But both herpes viruses can infect the brain. Epstein-Barr virus can infect the brain. Cytomegalovirus. Toxoplasmosis, different kinds of parasites.

Of course, Lyme disease and and some of the wine co-infections. So I do consider it very, very important that people get that broad spectrum testing and make sure there aren't any, high levels of reactivity to some of these infections.

That's a big thing that's missed. Yeah. Because it's a different situation than what people commonly think of as an infection. Right. You acquire something.

You have an acute specific set of symptoms and then you get better from it. But this isn't this is an entirely different thing that we're talking about.

We're talking about these these viruses typically. But sometimes bacteria as you mentioned, like from the tick borne diseases that get into us and then basically hitchhike in us the rest of our lives.

And they can either be controlled by our immune systems or they can be chronically active and create a lot of havoc. I call them vandals with my patients.

We have too many vandals in there. Then we're going to have a lot of damage and we have to get them under control. And it's such an important piece and something really that years ago I started learning from you.

So it's it is it's just really important. Well, and there was a really creepy, case report of a woman who died from dementia, and they did an autopsy on her brain.

She had earlier been treated for Lyme disease. They probably gave her a standard course of antibiotics and assumed it was treated. But she went on to become demented.

And when they autopsied her brain, they found, like, Sparky slime. Organism is called a Sparky live spark. It's in her brain. So, definitely we've then the.

There is a problem with the testing. I have to say, it's quite expensive and it's a it's an ongoing frustration for us because, much of the the Lyme testing isn't covered by insurance.

There is a company that we use that is, considered reliable for the Lyme testing because they test all the different bands and they test strains from all over the world.

That company is called I, I, and then like the word gene I g e n e x.

Brain biomarkers and what they may reveal

So some of their panels are covered by Medicare. If you have the right diagnoses to support ordering it, but they're not covered by commercial insurance.

So if you're under 65 and you don't have Medicare, you're paying out of pocket. And it's quite expensive to test. But it's one of those things that I just try to help people prioritize in their budgeting because as many of the people in the first study that I turned up that had active tick borne disease were never knowingly bitten by a tick.

Some of them didn't have pets. They weren't hikers, you know, but they still had active disease. So, you know, I remember one of the investigators saying, well, I don't think we should test people.

We don't have any suspicion. And I said, no, we got to test them all because you cannot know until you test. Yeah. And I think, Christy, you bring a good point of the way we approach some of the levels and things like with these viruses.

Well the viruses, they do integrate into our bodies and ourselves and our genes and they stay with us. And if our immune system is working well then it keeps a lid on them and they don't replicate and they're not active.

But when we have weaknesses in our immune system, which can happen just with aging, they can wake up and start replicating and become active again. And so a lot of traditional medicine doesn't bother to test for viruses because they say, well, we can't treat them.

We don't have a lot of antiviral drugs to treat them. So why do anything but, we work with first off, we look at the level of the, antibody levels with these, these things.

And so if you have herpes, you probably always have some low level of antibodies. But, when you have an active you get a cold sore or a genital lesion.

It's that means it's very reactivated and you're going to see those levels go up. Sometimes people have no active symptoms, but I'll see their levels go up.

And so in our world with functional medicine, the training is that if we see the antibody titers 4 or 5 times higher than the normal range that that virus has reactivated, and it would behoove us to to offer some support in treatment for that.

And there's different protocols that we use. I know Kristina and I both use a lot of verbal protocols. You don't have to go to big, heavy antibiotics and antibiotics don't work for viruses in the first place.

Of course, you know, they only work on bacterial infections. But, there's ways to support these things. And I can see people's levels get better. So, so I think infections are a big thing, right?

Yeah. I agree. And I think too that, a lot of people don't understand that, like with the herpes virus, the cold sore virus, for example, those nerves are in and around your mouth.

Those originate from your brain. And so that virus is stored in your brain waiting for an opportunity to break out of jail and give you a cold sore. So it's a virus that's already in your brain.

It's not just in your body, it's literally in your brain already. And just like this virus keeps herpes simplex virus, that virus has been recovered from the brains of Alzheimer's sufferers as well.

So we know that these are part of the inflammatory process. And so it's just so interesting as we're treating these patients with all of these different collections of, chronic infections.

But, you know, I know that you and I could talk for hours because we have many times, and it's always so fascinating to have these conversations. But before we run out of time, I really want us to talk about some of the results that we're getting in the study.

Okay. But before we leave, I just want to say one thing that I think people are missing that we do incorporate into our study is hormonal support. Yes.

And and, you know, there's receptors in your brain for estrogen and progesterone, testosterone pregnant alone in men and women. And they control so many things, their hormones and hormones are messengers.

They go to multiple different systems. And so one of the the big things in our approach is to test all the hormones. Not every person needs testosterone, but some women do.

Some a lot of men do. You know, after a certain age, all women have low estrogen. So supporting these hormones. And we can also pregnant alone and DHEA, we can actually support with supplements.

They're not prescriptions, but, it's a, it's a, it's a little tricky area because a lot of physicians thought that if a woman

is post-menopausal for ten years, that they should never go on hormones, that it might make them worse.

And then the all of the, the data that people are quoting from different hormone studies were from studies that, primarily had a lot of the synthetic hormones, Perryman and Provera, that we know cause inflammation, that they, you know, cause, they, they're linked to, you know, breast disease and strokes and, you know, all kind of things.

So we use the, the bioidentical hormones that we use these days have a wonderful safety record and seem to be preventative for brain disease, heart disease, bone disease, all kinds of things.

Your skin, your hair, etc.. So, finding a physician that's willing to help you replay your hormones, I think is another part that keeps coming through.

And when we see people, I'm sure you have, Christine, but I find the word finding difficulty that starts. It's more pronounced for women. And sometimes when we put them on estrogen, that can help so quickly with with that.

And, I had that problem when I became, perimenopausal in terminal, the terminal part of that. And I went to my doctor and I said, I'm having word binding problems.

And she said, oh, welcome to perimenopause. And I thought, oh, okay, we'll pat on the back, you know, perimenopause, we all get this. And I went home and I thought about it and I said, wait a minute, 50% of women are going to get Alzheimer's.

And maybe those of us that start having these cognitive problems at this phase are the ones that are going to get it. Well, that wasn't the whole story for me by a long shot.

Like everyone, I had all kind of factors that eventually caused my dementia. But, the hormones can quickly, for some people, help that we're finding difficulty.

So anyway, I just didn't want to leave without stressing that. Yeah. No, no, I'm glad you brought that brought that point to everyone's attention because it is a really important point.

And, you know, especially when you're already starting to get symptoms of cognitive decline, it's so important to save your brain. Your brain is you. And without that, it none of the rest of it really matters.

And when we think about prevention, then it's like for women, don't wait until you're menopausal to get your hormones support. I mean, perimenopause is a ten year process, right?

And first the progesterone starts going down. And with low progesterone people can get anxious and they can get insomnia. So just supporting the progesterone levels can help those things.

Sometimes people only need them for part of the cycle. And then in the beginning, you know, and but working with a physician that understands and tests the hormones and then brings in the estrogen when the levels start to decline, you want to keep that support in and not just let it tank, because by the time it tanks, you've done so much damage to your heart and your bones and your brain.

It happens so fast. And with women, we have less heart disease than men until menopause. And then we approach the same levels almost as men and it happens so quickly.

So again, if we can, you know, teach people to know that this support really matters. And it's tough because the typical definition of menopause and gynecologists written is that it's menopause begins one year after your periods stop.

Hope, infections, and hormonal support

Well, you have lost so much ground then. And there's, you know, some nice studies coming out with head scans

showing what's happening during this period.

And they show, let's see, they were, they were blood flow perfusion studies. And you can see they I saw a slide of one of them, and there was somebody who hadn't hit perimenopause and then perimenopause and then menopause. And they have a decline for people.

And, and it affects the blood flow in the brain and all kinds of regulation of hormones, the nutrients into your brain. So, so yeah, I think that's a great message to stress to people of how we can help prevent this.

Absolutely. And, one of the slides in one of my lecture decks shows the that the same areas where the estrogen receptors are the most dense in the brain are the areas where we see the most atrophy with Alzheimer's disease.

Right? Is exactly what you're talking about, how important it is in maintaining the health of the brain. And we can see it structurally. Yeah, yeah. And just another tidbit for for hormone coverage for people who are on Medicare.

Medicare doesn't cover hormone replacement. They think you're dead at 65 and, you know, stuff like that or it's not in their budget. So, what we do is we basically go to good RCTs, and you can, get a good, coupon to help pay for the, the cash pay price of the hormones if you have Medicare and it usually runs about 30 to $33 a month.

If you get a 90 day supply, it's cheaper than a 30 day supply. And it varies from pharmacy to pharmacy. And it varies all the time. So whenever I write a new prescription and I say, oh, let's let's check and see which pharmacy we should send this to, you know, but that's a tip for people, you know, being able to get affordable hormones, commercial insurance.

If you have commercial insurance, it's generally covered with appropriate diagnosis. And, you know, menopausal symptoms or perimenopausal symptoms are are covered conditions.

Yeah. Exactly. All right. Let's talk results. Let's end with our results. Well we don't have not yet. Obviously. We're we've got about half the patients through the study.

And we're working with a really gifted, statistician. Who's this is an expert in the, cognitive study realm. And so he's, showed us some graphs and some data and the separations between our two groups, because that's what we're really trying to show.

The people getting active treatment are getting better than the people that aren't getting active treatment. And and as I mentioned, we've had some barriers because basically all almost all of our patients that are doing nothing are still getting somewhat better.

And that's because I, I realized testing them every three months, there's a learning effect. It's not supposed to be a learning effect to repeat them every three months.

And we do a different version. But they learn it. And one of my patients in Group B, I just found out when she finished Group B that she was also being seen at Stanford, and they were testing her all the time.

So she did this testing eight times in nine months, and she kept getting better. But cognitively, she's getting worse in her life. She's getting worse.

You know, she's reporting way more symptoms, but she's very smart. So she got that. She, you know, she learned the strategies of how to take these tests.

So it's, you know, it's difficult when we see Group B also getting better. But the Group A there is a separation pretty much you know, our markers and especially on the online cognitive battery we do it's called CNS Vital Signs.

And that's about a 45 minute test that, is done on the computer and test all kinds of domains of functioning. And we're seeing quite a dramatic separation so far.

Again, it could tank and go the other way. So I it's not done yet, but but so far we're all really happy and excited. And really, what's more important to me than the data are what we're gaining from the personal stories of our patients.

You know, I know you have stories, I have stories. I mean, I have so many of my patients that are now testing completely normal. But even if they test normal, how does that translate into their lives?

And, you know, I have patients in their 70s that are, you know, going back to, you know, jobs consulting, big art exhibition that she's doing all the paintings for in San Francisco, you know, people taking on things in their life that they were not able to do before the study.

And and that, to me is more important than the data, even those, those personal stories. And I think as we've alluded to, this is not an easy protocol.

You know, you gotta exercise every day. Do brain training, you know, do mindfulness or meditation practices, because we know you need that for a regeneration of your brain to be in parasympathetic mode.

You know, make sure you're sleeping properly, you know, eat a very clean diet. And then we didn't even touch on that. I'm sure you've probably in another talk, but the ketogenic diet does some amazing things for the brain, for some people, a lot of people, but not necessarily everyone.

There's no one size fits all right. All of this is customized to each patient. So we can give some general outlines. But you need to figure out what are your factors and what works for you.

But for I think what I see all the time and some of the support groups on Facebook, people saying, well, is it really worth it? You know, should I try this and eat?

Every individual has to decide what is their capacity for change and to do things. But from our perspective, it is so worth it, right? We've just seen so many people get better and I would never say this works for everyone.

Like that's that's also not right, you know, fair to say. There's all kinds of different neurodegenerative disorders. And we find that what we're doing is working for some different kinds, but there's some kinds that go very quickly that are different.

And you know, we keep looking to, you know, we're looking at how the people with different kinds of disorders respawn. But so it it doesn't necessarily help everyone, but gosh, it's so worthwhile to try it.

It's and the effects can just be so profound. We're not talking about, you know, what you're seeing in results from drug studies where people don't get worse for four months and you know, and you paper just came out in, Nature Medicine saying, oh, diet and lifestyle.

The people that did the diet and lifestyle changes got better than the ones that didn't. Well, yeah, there was a separation. But when you look and I think it was like a six month thing, they all started to go down after six months.

So the people doing the interventions were better than the people not doing the interventions, but they still started to decline. Right. And that's what we're trying to stop.

You know, it. And for people that are farther along with dementia, it is harder for us the the for the more demented, you know, the farther along the process is.

But a lot of times we can still maybe help people to feel better and stop it from getting worse. So may not be able to turn the ship around if you know it's been going on a long time.

So that's one reason that you're doing your summit here. Thank you for doing this is, you know, for us to convince people that there's things you can do, and the sooner you do them, the better.

Yeah, that that could not be better said. It's so important. The earlier the better. But you I think to your point about people who are more, more progressed.

Yeah. If we can help someone, like the one patient that didn't make it into the study because they were so seriously declined, but we got them from a seven to a 12 on the Moca score.

That's the difference between needing to be in memory care and being able to live in a home and function. Right? Support, probably, but still being able to, you know, participate in and enjoy life and and your loved ones around you, that's still a profound improvement.

Yeah. And so I think that that's that's one of the things that I really try to help people to focus on outside of the study, right? When we're working with our own patients, is we if we're far along, we may not be able to get this all the way back to where you used to be or how you used to be, maybe.

But even if we can't, if we can get you to a place where you can enjoy a quality of life, then we've had an enormous success right? Right. So I think that's our takeaway here.

Right? Mentioned is not a death sentence. And you know, in our in from to physicians who have been working with this and get success after success, it's absolutely worth trying.

And, you know, finding the right people to guide you, I think is important. And, you know, we're both working on ways to reach more physicians, train people to do this.

You know, what we know and what we're learning. So, you know, it's it's an evolving process, and not all physicians that work with cognitive decline have all the answers.

The best thing I would say is, if you don't have somebody in your state because you can do telemedicine, as long as the physician is within your state, is try to find an advanced functional medicine practitioner or somebody that you know, understands all the things that they can test and knows how to support that.

Christine and I both trained and were certified with the Institute for Functional Medicine, and their website is ifm.org. And there's a find a practitioner.

And I just got them to change it so that people could put all the states that are licensed in, because some people are licensed and able to see someone from another state if they have a license in that state.

So, it's expanding the search for people when they're looking looking for someone.

Study results, patient stories, and next steps

But on that website, people will show, I mean, if they're certified, they've had to have taken all the modules. And, you know, but there's still different levels of experience, like some people are certified, but there are gynecologists and they only deal with women's health issues within functional medicine.

So, you know, it takes a little bit of effort to find someone. But that would be my best advice for trying to find a decent, experienced functional medicine physician.

And I think the other take away from what you've described is that if you're working with someone and you have an improvement and then you start to decline again, that that probably means or very, very likely means that something had some stone has not been turned and that there's a missing piece of the puzzle changed.

And I was sitting here not thinking, should I mention this? That's different in this study because we've talked about so many things. But one of the things that's new in this study is that, we're testing the oral microbiome and we're testing for dental infections because we know that certain strains of bacteria in your mouth track right to your brain.

Some strains cause dementia, some go to your joints and cause arthritis. Some go to your heart. So, that's a new thing that we have incorporated into this study.

We're using a company called My Career Path, and there's about 2 or 3 other other companies that are also, you know, and as you swish some saline and spit it in the tube, send it in, it's quite easy.

And then we get, you know, a report on all these pathogens that are known to cause disease. But, there's, there's something changing. So I worked with a woman for a number of years who came to me with moderate dementia.

So she was pretty far along. And again, we didn't completely turn that boat around, but we stopped her from getting worse for a number of years, she was still able to do things independently and travel around the world with her husband.

I was really impressed with how well she was doing, and then all of a sudden she started to decline. And so I said, well, let's look at everything again, you know?

And, in her case, I said, have we done a cone beam, Cat scan x ray? And, that's an x ray. That is a Cat scan. That's kind of like a panoramic spit. It can image groups and all kind of things.

And, you know, having root canals is another long conversation. But that's a problem with infections that can go to the brain. And her husband said, well, yeah, she just had a coming Cat scan and she's got infections in two teeth.

And they want to do root canals. And knowing what I know about the dangers of root canals, I said, well, I think we should just, you know, pull the teeth.

But, she was being treated for osteoporosis with the infusions that can cause, osteo necrosis. And two surgeons said, no way. We can't, we can't, we can't do surgery on her.

So, but long story short, she had been stable for a number of years. Sudden decline, two infected teeth. So another source of infections and things to stay on top of.

But yeah, you go back to the drawing board and say, have I missed something or has something changed. What about the cold in the house. Sometimes it's the mold in the house that they had a leak that you didn't know about. And.

Yeah I think the recurrent declines are generally one of those things. Either an infection that's rearing its ugly head or getting activated or an exposure like a mold toxin exposure or a Covid infection or a Covid.

Well, that's an infection. Yeah. It's I had three Covid patients that were doing well that each developed transient ischemic attacks after a vaccination.

And you know, with hard to kind of get things, get things back. So yeah, we know the spike protein, whether it's in its natural form from the virus or from the vaccine, is very pro-inflammatory.

And that's a problem for for the brain, for someone else. Right. For some people, exactly. When people get the infection in the vaccine and they're fine, it's sort out linked to is it a problem for and you know and so yeah.

But so it's going back. Keep going back to the drawing board. You know. So exactly. And so sometimes we people don't need us for a long time and then something changes. Yep.

And they need us again. But there's reasons I think this is a good thing to end on. It's like, I like to say dementia isn't a mysterious disease. It just happens. I mean, it happens for reasons.

And so this is what we, as you know, as our physician being like a detective, we're sorting out all the reasons that this might be a factor for you. I mean, we didn't even talk about, you know, lipid problems and diabetes problems

and, you know, immune problems.

But there's so many issues that could be driving the decline. And so, if something gets worse, go find the reasons right now. Go find the reasons I like.

That is a great place to stop. I just have to tell you, it's always amazing to chat with you, whether it's social or scientific, which usually our social becomes scientific.

Yeah, always amazing to talk to you and I really appreciate the opportunity to share all of this not only important information, but the really exciting news that's coming out of the study with everyone who's watching the summit today.

And I just to our summit audience, if you want to find out more about Doctor Toups and her work, I think your website, Dementia demystified.com, that'll work.

Yeah. All right. Excellent. And anything else that you want to share with the audience about things that you're working on? Always, always different things.

But, I do want to say I'm not taking new patients at this point. And I'm sorry. I wish I could help everyone. And that's why I'm trying to focus on the research and then trying to get this book written that I started so long ago.

And of course, now there's so many new things that I'm putting in it. So I hope sometime this year to, to get that, that finished. And, as mentioned, if you go to my website, you can download a free e-book.

I think it's about 22 pages, kind of it covers all of the basics, for people to understand the approach that we use. And it doesn't have the brain biomarkers, which are new, but it's I think it's a start for people to, you know, to get a sense of, of what's involved.

And I try to put some talks on my YouTube channel. But, but yeah, so just, different things working in other areas of functional psychiatry, you know, consulting with, residential depression treatment center, where we're incorporating functional medicine and metabolic psychiatry, which is a ketogenic diet and lifestyle medicine into traditional other psychiatric trauma therapy, you know, things like that.

And it's a four week program. And the first cohort is, going to be in late March. So that's called the Healing Depression Project, if people are interested.

And then the second cohort of people will be later in the year. So anyway, what what's the new sort of great work happening? Yeah. Thank you, Christine, for all that you're doing, you know, personally, professionally and, you know, taking the time to create this summit to bring information to people.

And, thank you to all of our listeners. We hope that, that you will get some benefit from this. Absolutely. And if and if you as a listener, have enjoyed this conversation today, please do join us for some of our other talks because we have some amazing practitioners that we have interviewed.

Thanks for joining us today and thank you, Doctor Toups. Thank you, Christine.