Introduction and Guest Welcome

Hello everybody. Thank you so much for joining me yet again on our lovely, Cancer Breakthroughs Summit. And today I had the distinct pleasure of introducing you to someone who really near and dear to my heart.

Someone I've had the pleasure of knowing over several years now, our paths crossing in a variety of integrative oncology spaces, and I've gotten to know him more and more over the years, have many conversations and, brilliant physician, but also just brilliant and kind hearted human being.

And I'm excited to talk about some of the methodologies that he's used with his clients, the evolution of his own practice over these years, and maybe give you some thoughts about different tools that you can bring to the cancer journey.

So, Dr. Charles Meakin goes by Chuck, by the way, welcome. And thank you for being here. Thank you. Nasha. It's an honor to be a part of this. And, spread the word on metabolic oncology.

Thank you. I'm so excited. I'm so excited. You know, you have been in the, college space either as a medical student and in the research space and in practice.

You've been in this space for well over 25 years. as a radiation oncologist and working in this field for a very long time. And so I'd like to get a sense of what actually drew you into the field of oncology.

And then second to that, what do you think are the the biggest? Like, what do you think standard of care oncology does best? And where do you think standard of care might, be able to do better?

Your question. Yeah. So I was always sort of, in kind of a weird kid in a way. I, you know, you know, back in the 70s, not many teenagers did yoga or martial arts and thought about, you know, different religions and different strategies for health care.

And so I was sort of drawn to that for some reason, the mind body connection. And then that helped me steer my way. And, to, you know, a career in health care.

I went to medical school in my hometown, the University of Cincinnati. And, you know, I wanted to be impactful in whatever career I chose. I wanted to look at sort of the, you know, the, the the opportunity more or less to capitalize on the mind body connection and dealing with physical illness.

So at first I thought, well, maybe I want to be an or a surgeon. And I did some research there and felt to me like none of the neurosurgeons were that happy as I went through residency.

And so I, you know, found a mentor in oncology who was brilliant and still practices today.

Early Path Into Oncology

and so that's when I thought this is the ultimate, you know, opportunity to kind of look at, you know, physical disease, but how it overlaps with our emotional and spiritual sides and how that may impact outcome.

And so, You'll then the head of your time, my friend, way ahead of your time in that. Yeah. Well, you know, I knew that I want to do I wanted to do something that was more than just make a living and, so I had the opportunity to go out to California and did my residency at Stanford.

Where in San Francisco, they had, a mind body and medicine course there that had really wonderful speakers and

programs on hypnotism with doctors. Spiegel's out there and was an early in his career there and other, educational opportunities.

and then in my first job in the University of Cincinnati hospital system, Christ Hospital, I was able to I we used hypothermia and heat along with radiation.

We set up a program there that, you know, helped us, you know, use adjuncts that would be sort of toxic along with standard radiation. And it was interesting.

We had some remarkable outcomes with that. ultimately, I decided to go back to California and then ultimately end up in North Carolina, where my wife's from in the Charlotte area.

And, I was always sort of the black sheep in this big group and kind of in a good way. You know, I always got to focus on other lifestyle issues in addition to being a good radiation oncologist and offering standard of care with some variation and its intensity of application, I always kind of I mean, look at the adage, I'd rather know what kind of person has cancer than what cancer they have, and that would sort of steer a lot of the, the judgments.

it probably would have gotten in more trouble. But I wasn't a complainer and I wasn't. It's always one of the busiest and most energized. And, and so I worked there, I think, for 25 years.

But in 2000, at the end of 2018, I had to retire because of, personal, a condition called retinitis pigmentosa, which, has loss of peripheral vision. And that is kind of a blessing.

My mother had it and my grandmother had it. One of my siblings has it, one of my kids have it. And so but it's kind of foster me to be very hyper alert to general health conditions and anything that would delay the, you know, sort of a canary in the coal mine, I believe, for, you know, mitochondrial aging.

And so I tried to use strategies that would slow down. And I think, you know, at least from the doctors who I was in two trials, they monitored me, said, man, you're kind of an outlier, you know, you know, where's your chaperon?

You know, walk you to the bathroom? no. You climbed a mountain this year. What are you doing? So anyway, I found that, you know, some of the stuff really works on application, at least from my own standpoint. So.

But I did have to. I was legally blind for driving, and it's hard to talk to a cancer. Yeah. Service center and be the director and, you know, be legally blind.

So I then was able to branch off and help out with, the early telehealth of care oncology as her chief medical officer. And this really allowed me to, you know, expand my operations to, you look at lifestyle features, use repurposed drugs that worked metabolically, and, and also was very low cost, and available.

And, you know, it helped me like I was always aware of the pain points. Oncology. And as you said, there are some great opportunities. I think surgical therapy and acute care have really done well.

And, but we are extremely lacking in sort of follow through of changing the terrain to so that somebody doesn't develop the same cancer or a new cancer as well as, you know, we tend to have blinders on.

We look at, you know, there are so many times I had to sit down with patients and say, yeah, you have really pissed off prostate cancer or breast cancer, but that's the opportunity.

Now we're going to fix things that could really kill you. And, and you know, and so, and that was never well received, you know, because everybody's like, well, you know, what about the prostate cancer?

I'm like, that's 10th on their list of worries, you know. and so, so that, you know, helped me really try to make some changes in the cancer center. I was working with.

We had, you know, three, three other doctors there as part of a 35 doctor group. And, we did make some changes, you know, you know, small changes, but then branching off into sort of my own, you know, work with technology and now making metabolic, I can really focus on, you know, lifestyle issues, functionality issues and then do sort of look under the hood for drivers of chronic disease and, and then mitigate, modify them through lifestyle, diet, repurpose drugs, supplements and also meet people where they are, as you know, not everybody's able or willing or open minded to do like a super deep dive.

Right? Wow. I mean, my gosh, I'm not sure that anybody listening right now recognizes the zebra that you are among the herd of horses, which is so beautiful.

Retinitis Pigmentosa and Career Pivot

And that's that's good and bad. Right? Exactly. But you you do it very, humbly. And you, you do it in a very non-confrontational way. You just sort of like, do your thing and it draws people in instead of, you know, shouting from the rooftops, you know.

And so I think that's really powerful. The other thing I think is really powerful of your story is a personal challenge, which is, I think what brings a lot of us change, right?

So the personal challenge of a chronic illness or a condition, that's one of the things that you and I, we learned early on that we shared in common. I have the RP, issues as well.

My grandmother was legally blind, by the time she was 70. My mom has been legally blind since she was in her 40s. I've been tested for it for many years, and I'm not progressing because I've been living a very mitochondrial friendly life, you know, for the past 30 years.

So I've managed to keep it at bay. You and I have exchanged ideas of how to support it. I've. I was like you. I was accidentally taking high doses of acetylcysteine for years because of my missing, glutathione snips and yet I find out from you that there's a lot of really good data to show.

This is actually some of the trials that have been out there for our. So I, I bring that up because out of a life of necessity, you pivoted and a lot of the world pivoted in the last few years because of Covid and other things.

So it's pushed people to think differently and to step out of the box. And you were already an out of the box thinker, and then you had a personal experience that pushed you even further out of it a few years ago, and I'm incredibly grateful for that.

So thank you. And then the third thing you brought, like, just shocked me, is the fact that you were utilizing hyperthermia in the radiation department decades ago and it's one of the places that in the rest of the world, this is a they go together like peanut butter and jelly.

Radiation hyperthermia because of its impact on the Episcopal immune effect, the changing of the local tissue microenvironment, the changing of the perfusion, which then protects a healthy tissue but also drives the radiation deeper into and kind of opens up and creates porous snus into the cancer itself and makes the cancer more sensitized to the radiation.

So I don't understand why this is a really well-established tool, even in the conventional oncology world globally. And yet it's really rare to hear anybody even knowing about it number one, or applying it number two.

So again, you are just a zebra on zebra on zebra here. So thank you for that. But you started talking about something called Koc Care Oncology group. And so what I want you to do is give everybody a little bit of background about who they are, how they came to the US, and you being the person who really helped get it going, because that's that's just one component of this concept of off label drugs and repurposed drugs.

So maybe let's start there. Let's start with you define it. What do you mean by off label drugs? Repurpose drugs.

Then talk a little bit about this CFC and talk about the evolution of you utilizing this very powerful tool in your practice today.

Thank you. Yeah. So it's on off label drugs. That sounds like like a clandestine use or, you know, right back office. Yeah. But actually in America, about 30% of prescriptions, 20 to 30% well-established are off label prescriptions, namely, drugs that have been well-established have far an FDA approval for the use for one condition, but over time were noticed to favorably impact other conditions.

And, then the FDA says, well, we already know safety with this drug, and it's it's well established. That's useful in that we don't block or, you know, recommend against using it for that.

And examples of that are like, you know, gabapentin was initially put out as a seizure. Anti-seizure medicine now is used for pain reduction. amitriptyline was initially used for like an antidepressant and now also has other pain modifying, you know, uses that one people know about is minoxidil.

It was a blood pressure medicine. And then they found that it threw hair on people. Viagra was thought to be pulmonary hypertension, found it worked with blood flow and other things.

So there's a lot of this. And health care beauty is you know, these are well-established drugs, even more so than supplements that have, you know, very well established side effect profiles and tolerance profiles and so forth.

And most drugs have 3 to 5 pathway pathways, a molecular activity. Right. And so when you have this trove of drugs that will never get recertified with a new indication, you know, generic, you have a lot of low cost medication opportunities.

Care Oncology and Repurposed Drugs

And with, you know, the metabolic theory of cancer that, you know, that, you know, cancer actually is a loss of, you know, energetics of the cell and you lose control of the, you know, the DNA replication, not because of a rare sort of, you know, maybe virus or something induced mutation, but from the loss of the sanctity of the oversight of that through energetics.

You you open up the door for a lot of network impacts of these repurposed drugs and, have have some slides that can go into that. But but the this was always interesting to me.

and then when I heard us talk by my friend and, you know, science writer friends, Travis Kristofferson, about the what they call the metrics trial in England, where, Robin Bannister, a PhD pharmacist over there, right, got this and suggested four drugs that were common, inexpensive and cheap to be used in the, you know, the case of a glioblastoma, which is, you know, a typical brain tumor that had very poor outcome, kind of a average median survival of like 9 to 12 months, in most cases.

So they assembled 97 cases there in London. They gave them these four drugs and they still got standard of care. But it was interesting. Only about about a third of them only got a biopsy on the brain, which usually predicts for, very poor outcome.

Despite that, the median survival of that first subset was like 27 months. Wow. And you know, my own work, it was rare to me and I always called treating glioblastoma.

And the standard of care was like walking people toward a cliff. You know, there was just no good outcomes. So I always try to get them on, you know, regional protocols and do for Chapel Hill or Bond and Pray or Charlotte or our own auto protocols.

And so this was very meaningful to me. And I connected with Travis and, they were trying to roll it out in the US. And so I, you know, and, you know, when I ultimately left my major role and went back to doing a year of entrepreneurial work at Notre Dame, I, you know, I said, you know, I'll make this my, my, my capstone project.

And so worked on it there. And we in the doctors we ultimately had about seven doctors and seven wonderful mythology nurses. Some of the docs, part of your, consortium and, solid folks.

And, we grew it and never took any venture money. And we were early into the telehealth and we had automation with, you know, on, on boarding. And we, we tried to make it as frictionless as possible for people.

And, we had a good team over here. It was about 18 of us. And, ultimately, though, we merged with a company that had been around for 12 years. Thought they had a pretty good, you know, liquid biopsy to kind of use us to distinguish cancer and presence of cancer. And, they were bigger than us and they took over the reins, so to speak.

And ultimately all the doctors left. And, you know, we had to kind of to cash crisis, I believe. And, so they most all of us left, at that point. And ultimately, I was kind of joined my own thing, mainly from like, the two pharmacies I worked with was like, people really need somebody to go to.

And, Karen, ecology is still going in England. I think it's, you know, it's unsure whether it's still here in the US. From what I hear, I see a lot of patients that migrate over.

So I started making metabolic, and Travis was as my science writer and sort of thought master on, on ideas and, and so we started that in late 2022. And. have gradually grown it the things that we do differently, we've made it more affordable, just because it's us, we're not.

And then I partner with all the older the nurses that I used to work with. They work under human navigators. So if people need a nurse navigator to work with it, they they are and they're all oncology trained and they're integrative trained.

Some have done your course in Asia and, and so that works nicely. So I don't have to like, manage people on a payroll and stuff like that. And we are, you know, totally telehealth out of our 45 states.

some people out of the country, if they need to, we we are very open minded to people with financial challenges to just take care of them. and, we try to find the best opportunity on the pricing, on different things.

but it's always kind of a little bit expensive. in general, like a, you know, a month of the different cocktails of repurposed drugs is usually 70 to about 80 to 100 bucks, depending on the drug's amazing.

And of all the again, people listening are going to just recognize how much this is a passion project for you. It's about creating accessibility for all, not just the people with cancer.

it's it's an opportunity. Like you, I love how you started out. Just describing that off label drugs isn't clandestine. It isn't it isn't something that need, you know, like you said, but a very big chunk of our pharmacopeia are used in off label matters.

And so I think this is really powerful. And also just giving the history, because I think when coke, when you guys brought Coke over here, everyone was very excited.

And I think that it has gotten a bad rap in the last few years in the United States because of cost and because of what you just described. So I'm glad you gave the background.

So people have some clarity to understand that the well intended reason for bringing it here is not still maybe being fulfilled in the same way, if it's still around at all.

So I want people to understand that you are not part of the old, you know, the old, the old reign of it anymore. And you stepped out and created your own, which is the the milk and metabolic care.

And so one of the things you excited me about before we got on the call here was about how do you help patients

determine what is the right fit because you use those for off label drugs.

But I also recognize that you use many other. Yes. Like in the oncology space. So where do you begin with assessing a patient? I know you've come up with your own kind of metrics, your own sort of calculators.

Are you willing to share that? Yeah, sure. Let's share the screen here. And yeah, just real briefly when people on board, I, you know, we have a, you know, we try to make a, you know, they sign a consent on online and then they go through a paywall and there's different services.

Some are just I need to see the doctor right away. I have some of my own labs. Let's get on. We'll see you tomorrow. that's the lowest cost program. And then if they want nursing support with that, and we usually tell them you probably don't need it, you're in.

You know, we have a team. If they want to talk to someone, they can go through that. Or they might just want to do the big battery of labs, which is about if you paid out of pocket about $1,500 with the labs, but, you know, is a have a very good practice contract blast.

It cost us, you know, you know, probably 80 to 100 so we can carry some of those savings to patients. So in general, I want them know some of the, you know, the basics on people's life science and biometrics.

So they answer questions that everything gets scored is a one 2 or 3 one would be below average. You know, three would be, you know, pretty much above average or pretty reasonable or optimal, and two would be in the middle.

And so, you know, like on sleep, you know, if you're a shift worker and you chronically, you're working or up during the evening, that's a one versus.

Yeah, in general I get seven hours plus like I'm feeling refreshed. So we kind of give, you know, general categories a one, 2 or 3 on the topics of sleep, nutrition, exercise, breathing, stress, mission alignment, which is kind of how well you align with your personal mission and sort of revisit that on a regular basis.

Social engagement. We know how important this is. Hydration is kind of a sleeper as well. And we have action opportunities for all these. Then we measure, just like, you know, some of the basic, metrics on someone like their BMI, their strength measures.

And there's our, our, you know, predictive categories for, you know, one minute pushup test. Women from the knees went from the toes and scales for age.

Their current level fatigue in the last week the waist height ratio. And then the labs get get automated and entered here. And like the high sensitivity CRP for inflammation, we've actually recently added two other measures a systemic inflammation index in the said rate to see if that you know, as anything, we also do a homo IRR calculation, which is more predictive than like a hemoglobin one C on chronic disease and metabolic dysfunction.

We we have normals for homocysteine.

Patient Assessment and Metabolic Scoring

Once again, this is not a deep dive genetically, but it catches most people with a methylation defect. We can always do a deeper dive. This is a $14 test versus you know a snip valuation might be 50 to 1.

Yeah yeah. common ratio, simple and easy. you know, we if we need to, we can always go back and do LP little A and B levels and things like that, protocol levels.

But this is sort of catches most people, you know, thyroid function, renal function, liver function, bone marrow function, uric acid is, you know, is more than just a gout measure.

It's a signaling molecule for a lot of things, vitamin D level. And we're also adding, you know, GT for detoxification function, also adding, you know, you know, we have we measure ferritin now and we're also adding more in cortisol and some other thinkers.

So ultimately this is going to score to a hundred, not 75. We're just up putting it together now. And we also do the final age. And you know people on age calculators.

This is based on 10,000 people followed for 24 years by Brant Morgan Levine, up at Yale. And they found that nine blood tests using machine learning were predictive of someone's demise.

And instead of saying, hey, you got a 20% greater risk of not dying or something so of hard to understand like that, you know, like in this Cal State, you know, she had, you know, stage she had recurrent ovarian cancer, but she was doing pretty well.

Her final age was 40. Yeah. So anything under 90% of your, you know, calendar age we give a three to. But it helps us follow people. If three months from now we've made some changes based on this and their final age goes down to us, that's sort of an amorphous predictor that things we don't understand might be doing well.

You know, in addition to things we do understand. So, we hope to sort of capture all this data over time and see what the, you know, the movement is. And then, you know, once we see people, we, we, we, you know, we then transition to think about, you know, how do, let me get to the right side here?

How do you know? and so, you know, this is, you know, some of the, the arrow arrows in the quiver, more or less, you know, we we have we have about 20 drugs that I sort of pull from.

And this helps me remember all the different pathways, the, the redo logic or that's therapy and and get repurposed drugs, you know, the safety monitoring, the any sort of also supplement mimics that might be available if we don't want to use the actual drug and then we, you know, put together an incremental, you know, don't put people on ten drugs to start with.

Obviously, we start with the, you know, for 3 or 4 or five, depending on the urgency with their disease, depending on the different standard of care treatment.

We also use a lot of lifestyle issues. And, you know, like what I call metabolic mitigation or treatment mitigation strategies, if they're getting chemo and radiation to sort of help them mitigate common side effects.

I remind patients that these drugs don't just work on I mean, if we use metformin or a statin, these are not to work on glucose or cholesterol, respectively.

They're really have a network effect on on the pathways. In fact, you can march out many of the original hallmarks of cancer and how these sort of have subtle effects on all of those and these network effects of just these for common drugs.

My bet is on like forman doxy and, statins, you know, work on multiple pathways, generally down regulating liberation, generally challenging like glycolysis and personally presence of oxygen, working on the tissue microenvironment.

And also, you know, working on the total pathways that will help, you know, cancer cells die and stage, I always point out to people that, you know, if we can use some simple drugs that can change the of this, these are classic curves, oncology.

You know, that that maybe most of the time, one if we, you know, take the burden of about a kilogram of tumor tissue, it usually is over overwhelming to our body.

And then sometime in the ten of the 12 cells, which is about a kilogram of cancer, you know, 2.4 pounds, we

generally surrender and say we're done. We die.

but if we could change this curve just in the development of cancer, so it takes many years or in the treatment of cancer, if we could steepen the curve during chemotherapy and radiation or post surgery or just with these simple drugs, we could get it down to the point where the immune system can do some clean up.

And that would really be powerful. So that's for the angle we're working with. And I once again say this is sort of every man's solution. The drugs are cheap.

They can see us telehealth. We we can go deeper for those that have the means and energy and intelligence or curiosity to do that. But this is sort of, meets most people where they are.

And that's how I see that I can make the most impact. Oh my gosh, Chuck, this is so beautiful. And I mean, first of all, thank you for walking us through this very visual of it, because it's hard to get your head around it.

you know, a couple of things I just want to highlight here what you shared is, first of all, Chuck is unique in that you also really want to know your patients, not their tumor.

And so I think that's really interesting. And I think this, this kind of, high, you know, this, like, high level look, with your metrics, your kind of questionnaires, your calculators gives you a bigger sense of the person person, not just their tumor.

so that's really powerful. And like you said, that's going to be important for, you know, 80 to 90% of the population that that alone is a very inexpensive evaluation.

Now we can get very, very, you know, kind of sexy and sophisticated and go deeper into deeper dive, deeper testing, deeper functional medicine, deeper epigenetic, you know, single nucleotide polymorphisms tests, pharmacogenomics testing, tissue and blood assays.

you know, all the different metrics that you can look in that are very, very, very detailed and specific and precision and personalized. And that's where those folks at that first, say, 80%, if they're not quite getting the response that you want, you would want to go a little bit deeper, which I know you recognize.

it's like, okay, it's not like a one size fits all and that everyone's going to have this wonderful experience, but you're trying to capture as many as possible to have a good experience at the starting point.

And then if you hit a wall, you can go deeper into the evaluation of this one thing I want, I would love for you to speak to is because this is becoming more people are becoming more aware of this.

Can you speak to kind of the pain point of people trying to navigate this on their own? and sort of the, the, the, the dangers?

Safety, Supervision, and Clinical Caution

I know you appreciate people being, you know, autonomous and self-starting and self-motivated, self responsible. but this these are pharmaceuticals. Can you speak a little bit?

Yeah. So we, you know, I always my tagline, you know, right after I retired, I started a charity website, you know, Project Forward. Chuck, I thought I was just going to do charity coaching and then, you know, as I said, I got involved in the repurposed drugs and, you know, got so busy after a while that I had to like.

But then on site, I still have the website, but the tagline was be your own best doctor. And that's not to, you know, as you said, be too cavalier, but also mainly to take responsibility for your health and and recognize that, you know, your awareness of things is a good governor of how things are going.

and, you know, you're not going to affect any change unless you're a part of the solution. So so yes, said I, you know, I do encourage people to be curious and, you know, know and do their own inquiries.

But, you know, these drugs need to be monitored. And, you know, we we try to do we have like the safety panel looking at renal function, liver function, basic bone marrow function that we encourage people to get every quarter.

Most of them get through their local doctors, and we just sort of eyeball them and they upload them, to their own, you know, to their on board forums when they're seen and follow ups.

Secondly, the, you know, we do see a lot of stuff out there. People are come in and they're like, well, I read on Facebook that I need to be on for benders all.

And yeah, I found this, you know, and I, you know, we see people taking, you know, two, two grams, you know, daily and stuff like that. And there's a lot of fillers and some of the in the area versus kind of fella that almost killed his liver.

before you met me, the day I met him, he had just they're only two weeks in and, taken for benders all on their own. He must have had some preexisting fatty liver disease.

Or because he wasn't on that high dose, but his, you know, his his liver function got up to, like, 1800. And but he came back ever as a journeyman, they sometimes can surprise you like a, you know, and recover.

And he's back on treatment. page one of blastoma. But so, yeah, you got to be careful. You want some supervision? And, and I, I think, you know, I'm seeing a little bit of movement where, you know, it's messy and very difficult to treat diseases where standard of care.

Doctors are saying, I'm so glad you got, you know, you know, another metabolic minded person on board, you know, we're where. Are the team? I'm sure a good thought with this, we can take any help.

We can. I just kind of lovely experience talking to, neuro oncologist and medical oncologist out of Emory on a patient with a terrible neuroendocrine tumor.

The base of skull. and so it's like, wow. You know, I wasn't expecting this phone call to go so. Well, you know, and, so, we get to see more and more each day that we're starting to see some, you know, a better understanding of metabolic principles out there.

I love it. And you, this is what I think is so exciting. It's like this is, this is something hope on the horizon, I think, is what you're speaking to here for sure, about using some tools we have already available in a different way.

the next step of this is that there's coming a time very soon, and there actually is a way to do it now, but it's a little more costly to know exactly which of these off label drugs will fit.

You know, instead of just saying, oh, breast cancer responds to this. Well, even within the category of breast cancer, you've got a massive variety, of pathways happening.

And so we can get down to the very specific of is this particular pathway expressing, and will this particular off label drug be of benefit, or detriment based on that person and their individual.

So this is where it's getting into more of the sophisticated place where we're moving into, which is very, very exciting. Exciting with, one of the, one of the great byproducts of sort of the working with Karen College is, you know, met some nice people.

And one of the, is, is Padman, who is a medical oncologist, is an oncologist over in London, and he's a younger fella and, very bright guy. And we've all we always, you know, worked, you know, worked well together when we were with Karen Polje.

And so he and I try to really figure out how to make, you know, like a the genetics, you know. Of the off. Label and. Yeah. And, and repurpose drugs screen more available and more useful.

And so we're working on that right now. That's a 4 to $6000 test. Right. Once again it is better than what we have. But it's still like an an extrapolation you know, exercise.

You know, what they do is they take three vials and they played out circulating tumor cells. If you know, you know from a patient and hopefully they find them.

And then they put those in petri dish and they put different supplements and repurposed drugs on them for 12 hours. And they look at, you know, the cell death rate.

You know, they kind of do it in 20% blocks, right? Like percent, 80%, 60%, 40%. And so they're trying to extrapolate what a, you know, a body dose for a certain drug would be versus putting that drug on pitch or just putting it on the cancer cells.

And then, you know, that kind of negates the whole tissue microenvironment impact that we know is so important in how cancers respond or don't respond.

And but it's at know it's a work in progress.

Future of Metabolic Oncology and Closing

And so once they get more numbers where they, you know, they have a strong prediction for a drug and they see a good outcome or be more and more confident.

But so we're trying to work on that and see how to use that best. Right now, it's hard for me to recommend a 6 or $7000 test that is still in my mind, you know, a little bit of an extrapolation exercise.

out the kinks still on that? Yeah, I know I'm not accessible to, you know, to what you're mission and vision is, is to make this approach more accessible by all.

Yeah. Yeah. I mean, you know, we're reasonably inexpensive from a standpoint of most things. In fact, I just had to raise my prices, I'll have to confess.

But, you know, it was, you know, everybody, all the other cost amount to date license. Everything's gone up. Us realizing that I was cheaper than the, you know, the electrician and the air conditioning guy and the plumbers that were coming to my house and, you know, less.

And I'm thankful for having the wrong career. Chose the wrong career path. Yeah, yeah. You know, a key thing. Chuck. I just like your your heart. Your soul.

What drew you into this field? What excites you and gets you out of bed every day? Your path and purpose. It is so beautiful. It's so incredible to learn from you.

I'm so excited to see what more will come of this, because I feel like this is just the beginning of a really beautiful I mean, you're leaving a legacy with this work, and it's really beautiful to see all the impact that it's making.

I've gotten to work with a lot of your clients over the years as well and see it firsthand. I've learned from you. In fact, you're helping train our network of clinicians in, in the off label drug approach and helping folks kind of hone their skills because it's it's a mind stretch for the clinician and, the advocate and the patient as well.

So just super grateful for you. Where can people find out more about who you are, what you do? How can they consult with you and your team? And, yeah. Yeah. So thank you. Thank you.

And I would also say thank you for doing what you did. I have done, and are still doing and, you know, your consortium, it's kind of given us a lot of us black sheep, you know, and, and so, yeah, it's nothing like having a, you know, a tribe to, to sort of be able to talk about issues with and to not feel like, you know, you got to duck arrows all the time.

and so you've made that. I mean, the energy amongst your group at the meetings is so positive. And, and it's, it's comes from the right place. And so, thank you for doing what you do and how you show up.

But yeah. So meakinmetaboliccare.com I tried to get mmc.com, but it was already taken meakinmetaboliccare.com and if you just put in me and that's how I and also my teammates healnavigator.com without an s.com, they also have a funnel.

and that way too. You can talk to a patient admin person there too. Whereas on meakin metabolic care it's really just automated. And once again trying to make it lower cost for people.

and so a lot of people still want to like give a call and things like that. And we do have, you know, contact email and phone that goes to, you know, heal navigator, because I'm usually seeing people four days a week, you know, till 5 or 6:00.

And so it's, it's hard to take any phone calls. And, you know, you one of the pain points in health care is the cost. And, a lot of people pay out of pocket for this.

We do give what I call super bills that have the I see the ten and the T codes on it. If they have a HSA plan and things like that, it's all automated.

So I can, you know, once they put in their diagnosis and stuff and we check that out. So we do try to help people with those, you know, if they can get reimbursed.

and we found really inexpensive ways to get most of the drugs. But we hope to be part guys. Yeah. Very well. Resource. So. Well thank you. And, we hope to grow with this.

And we see the metabolic oncology field to merge with the standard of care of people. And, you know, ultimately have a fourth branch of oncology. Yes, yes and yes.

Doc, thank you so much for all you do. And I look forward to seeing where this goes. Thanks for being here. That, thank you.