Unravel The Intricacies Of Your Cancer's Web Transcript

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Introduction and Book Overview

Dr. Neil McKinney. I'm so excited about having you on this summit. Cancer breakthroughs. And I know that you've been working hard on a lot of research and in this area.

I mean, obviously, you I think you have about five or six copies of your book, The Naturopathic Oncology. And this one. Yeah. Yes. That that's the one. Yeah.

I have it in digital version. I have it on the bookshelves all over the place. I want to make sure that it's handy and I can get get to it as quickly as possible.

And let me first do a little introduction. So, so that people know the wealth of knowledge that you're coming with. Dr. McKinney as a naturopathic physician, is not practicing right now.

He's he's focusing more on research. He have a degree in biosciences from Simon Fraser University, studied kinesiology University of Waterloo, received a doctor of naturopathic medicine from National College of Naturopathic Medicine back in 1985.

So it's been a while, actually, that you've been doing this and trained three years and traditional Chinese medicine at Oregon College, and you were in cancer research for several years, including novel radiation therapies and radio, radio sensitizing drugs.

Professor of Naturopathic Oncology and author of six textbooks of Naturopathic Oncology, as well as several clinical handbooks, peer reviewed journal reviews and articles for professionals and the public lectures to doctors in a nationally practice.

85 to 2020 with a focus on integrative cancer care and as I mentioned, currently engaged in cancer research with with the team of of assistance.

Cancer Research Focus and Core Concepts

And you've just come out with a new book and we're going to talk a little bit about the research that that kind of fueled the creation of that book. So.

So tell me tell me a little bit about tell me a little bit about the book. Yeah. What's the name of the book and how can people get a hold of it? Sure.

The book is called Unraveling Cancer's Web, and it's available in Canada through my website. drneilmckinney.ca or vitalvictoria.ca And it's also in the States, I think, better available to Amazon because the shipping outside Canada is very expensive.

I'd rather people outside Canada buy it through Amazon or one of the other outlets. And so in regards to cancer, what has been your main focus? I mean, what has been your research these last number of years?

Well, actually, let me go back to 1977 when I worked in radiation, subatomic beam radiation and rays, desensitizing drugs. You know, I started to try to understand cancer and my God, it's complicated.

But I understood radiation biology enough to get through that job. Well, but then I practiced for 35 years and really dug into the clinical applications of natural medicine, integrative and alternative and complementary.

But through all this time, you know, certain things nagged at me that I didn't understand very well. Yes. You know,

my books are covered, you know, complications and emergencies and interactions and lots of detail that helps a clinician.

But there's a lot of parts about the metabolism of cancer that I didn't understand. And what really, really irked me is despite the progress I made through the years, you know, there seemed to be often a tipping point where cases became incurable and or in response to what they had been responding to before.

And I didn't understand what made these shifts. So when I retired from practice, Dr. Joe Pizzorno approached me about working to develop ideas for research grants.

And he also recruited some students from naturopathic medical schools, and particularly best year and also osteopathic students. So these this team of research helpers got us through some of the key issues that we're trying to update on.

So we now have complete files up to date, you know, two articles from this year on these key issues. What I came to understand is that despite all the differences between the various types of cancer and God knows, prostate cancer is not the same as lung cancer.

It's not the same as brain cancer, that there are certain fundamentals that they had to establish. Fermentation is their primary metabolism, and this is absolutely that one knows a key hallmark of cancer.

It ferments, you know, you know, the Warburg effect that it will ferment even the presence of oxygen and it must reprogram itself to do this. It must have a lot of epigenetic reprograming that's quite distinct from the mutations that people talk about with cancer and begonias.

And then it also must shut down the immune attack. In fact, it often perverts immune system into working for it and it must have the cancer cells must develop stem.

This allows them to go dormant and evade therapies like chemo, radiation, art therapies, but also gives them more motility and causes the metastasis. That usually takes people to a much more difficult to treat stage and often eventually a fatal stage of the cancer.

So the metabolic, the reprograming, the stem cells and the immune issues were things that I've been trying to get some deep understanding of. And that's why I call it Unraveling Cancer's Web.

There are so many receptors or so many hormones or so many growth factors. What are the priorities? I established a few of the priorities for a few of the cancer, like Stat three in pancreatic cancer.

Focusing on that gave me some breakthroughs with pancreatic cancer, focusing on PGE two and mitochondrial function gave me a lot more traction than I had before with prostate cancer.

But what I beginning to see is that they all interconnect. When I first went to university, we were taught that mutated cancer was a start to ramp and mutations and most mutations were fatal to cells.

But the AKC lucked into one that gave them an advantage and, you know, kind of a Darwinian idea of somatic mutations. But it turns out once we understood the human genome, we realized that there's ten different ways that cancer cell can develop angiogenesis or better blood flow.

There's a half a dozen different pathways to defeating the immune system. It's so complicated genetically that you can take ten, say, lung cancer cases and compared the mutations, and they're almost all different.

There's 100 mutations, but there's only one or two in common between these ten different patients and each. Each cancer can have up to 80 different distinct mutations by the time it's fully evolved.

But how it gets to those mutations, those are not random. They they come in clusters. There's a cluster of growth

controlling genes that go down in a cluster of growth.

Controlling genes go up. So that insight into the genetics really taught me to start looking for these other, you know, networks and clusters that made all these things happen at the same time in a completely new round awake.

At the same time, it's getting more fermentation. It's reprograming itself and it's shutting down immune attack and it's developing stem this and they all interlink and it turns out out of the hundreds and hundreds of natural medicines, God knows I read every book available to me in my lifetime on cancer, every article I could possibly get my hands on and just, you know, took John Bastiat's injunction to read at least one paper a day.

All these things that are read, we've come up with hundreds of different possible medicines for energy in my books to sort some of the ones that people used to think were good into the junk category and some into the much more promising category.

But what it turns out is there's actually a fairly small set of remedies that deal with all of these things. So it's fantastic. So and I'm curious because I know reading in your book, you are talking about oxygen and people are talking about that, you know, cancer cannot live in an oxygen rich environment, which I know that you you know exactly which cancer thrives very well in an oxygen rich environment.

But it still moves to that fermentation process, even though and so what is and you were talking about all these different genetic mutations that are taking place, you know, what is that?

Metabolism, Hypoxia, and Mitochondrial Damage

That's kind of tipping the cancer cell to all of a sudden start to choose some these other processes, even though oxygen is available, even though other things are taking place that you know, that.

Yeah. Like you were talking and also another another thing that I know you'd like to debunk is the alkaline environment as well, you know, acidity and alkaline.

So even though the cell is alkaline, even though it has oxygen, it still tends to shift them through that fermentation process. Y Yeah. Y Indeed. So, you know, I think I don't want to say I debunk these things.

It's rather I pointed out that they're not being properly used and understood that of course, cancer cells, like any other cell, will die if they go to zero oxygen.

They live in a low oxygen environment and they can't can survive in a zero oxygen environment. But having extraction doesn't help them a great deal. Hyperbaric oxygen, something I was well trained in.

I took the same training as any doctor in North America takes. And we were taught that, you know, cancer is not amenable to treat with oxygen. Well, certainly, Paul Anderson has shown that hyperbaric oxygen can be used with cancer, but with the right adjuncts and at the right time, you know, the right patient and right cancer.

So there is a play, a small role forward, but it's not as simple as cancer. Can't live in oxygen, period. It doesn't directly kill it. What happens is that low oxygen is is a key to tool to the cancer problem.

So question of it we see that the standard American diet with its overnutrition drives the mitochondria too hard and they burn out. We know that high salt intake in standard American diet also reduces the auction tension inside the cells very slightly, but it starts to start.

So we know that the and also, you know, lack of aerobic exercise and sedentary lifestyle, certain other things that can reduce oxygen to a point. What happens is the mitochondria get damaged, but they get damaged by chemicals.

They're more sensitive to chemical damage by pesticides and other pollutants than our other parts of the cell.

They're the weakest part of because they have a different DNA structure than the rest.

And the disposal of those mitochondria. So the mitochondria begin to suffer from overnutrition, you know, too much sugar, too much salt, too much acid.

The modern diet is quite ass producing that reduces oxygen tension, particularly the carrying capacity of a hemoglobin for oxygen, so reduces overall and body oxygen. Tension.

So there's this subtle hypoxia that develops a subclinical hypoxia and that's one of the major starts. And it but it's also because the mitochondria are already damaged.

And of course, there's the rare cases where there is a mutation, you know, a gene, a family tendency. But, you know, there's there's lots of things like radon and other things that are gradually insulting the body, creating this damage to the mitochondria.

So they age out faster than the rest of the cell. And the whole body is becoming a little bit marginally hypoxic. But as it starts to react to that with fermentation reaction and the normal cells burn perhaps 10% of the fueled by fermentation, and they do this to build cell building materials.

But cancer cells end up burning up to 60% of fuel with by fermentation. And as they drift towards this increasing dominance of fruit are swinging the balance between fermentation and oxidative metabolism.

They start creating buildups of certain parts of the trigger carboxylic acid cycle. Succinate citric acid citrate fumarate particularly succinate. And they start to have a shift in the ability to create nad plus versus net important in generating energy still.

But so these things start to create what's called pseudo hypoxia and they start making the cells generate hypoxia inducible factor one even when there's quite adequate levels of oxygen.

So it, it snowballs, it feeds back on itself. It starts with a very subtle hypoxia due to all these things, subtle mitochondrial damage. But they start overproducing reactive oxygen species and they start producing too much hydrogen peroxide.

One of the things that happens with hydrogen peroxide is it poisons the ability to get acid and other ways out of the cell. But everyone has always said the cancer cells, you know, are can't standard alkaline environment.

They're too acid. But there was a paper by Joe how a couple of years ago they showed actually the interior of cancer cells are distinctly alkaline more so than normal cells. Why?

Because they have to upregulate these pumps in the face of this hydrogen peroxide that they're generating from over overactive mitochondria. So the whole thing starts to feed back on itself.

The mitochondria get more damaged, the the acid builds up, the pumps turn on that copes with that for a while and it swings back and forth, back and forth over a long period of time, but gradually drifts into hypoxia.

Stemless to immune tolerance state where the immune system won't go after the cancer anymore, and so on. So it's a it's a subtle process. It takes a long time and it swings back and forth.

It's oscillates, but there's this gradual. It's all about the mitochondrial damage. And I start writing about this in 2008 after they know why I start writing.

But it was in 2007, there was a study encountered on a dichloride acetate that showed you could actually spark up oxidative phosphorylation in the cancer mitochondria that had gone into fermentation mode.

Well, we had thought for years, Oh, you don't want to do that. That will give them more energy. They'll make more

ATP. You just feed the cancer. Yeah, well, couldn't be more wrong.

It turns out that if we can spark up the mitochondria that to oxidative fermentation and remove that ability, all the building materials to make new cancer cells with you can thwart the cancer.

But that turned out to be only, you know, a partial solution and help people live a little longer and better with some cancers that there was obviously missing a number of steps there.

So that's when we start looking at these ankle metabolites, these buildup of excess buildup of certain parts of the citric acid cycle, such as succinate, that these actually start creating retrograde signals and reprograming the nuclear DNA that's so p so p pa gamma is one of those signals.

And we years ago we thought about p pa gamma for ovarian cancer and using fermented wheat germ extract. And Lee Cellular was a big proponent of this and it was smart.

But what we didn't realize is fundamental all cancers and it's how really how mitochondria starts to take control. Its nutrient sensing pathways and other things realize that the cell is drifting off of its normal program and it starts to feed back to the nucleus saying, Give us more of these proteins, give us more of these enzymes, give us more of these receptors, more of these growth factors.

But it gradually drifts off off the rails. But they're you know, as I said, what has kept me hunting through all these years, since 1977 is where is that tipping point where cancer, you know, is something that a surgeon can't heal and that chemo won't heal or radiation will heal or, you know, I. V.

Vitamin C won't heal. And that so that's well down the road. But at that point, there are some the stemless and the immune system issues become, you know, much more important to address.

And that's that's what I was missing and that's why I think we're getting a handle on. So the the cancer cells so we're seeing this kind of gradual shift and towards more of the fermentation you have more of the, you know, succinate that that's being produced.

And then there are some signals being sent to to the the genetic to your DNA saying we need more of these materials in order to be able to to survive, because it's a survival mechanism within the cell.

And it's those asthe mitochondria is then signaling to the genes. That is where we're then getting these oncogene genes and all these kind of complex.

Stem Cells, Tumor Microenvironment, and Immune Modulation

And like you're saying, each cancer is different, each cell this is a little different. And so they all have their kind of survival signaling taking place.

So you can't just group it all into one group. And this is what I'm hearing. Yeah. So when we first start out as an egg and sperm get together in the fallopian tube and they drift down, you know, we drift down.

It's this little tiny mass of just a few cells, more cells, more cells into the uterus and eventually implant and create a placenta. In that interim, that fetal growth pattern is one that's just producing masses of undifferentiated cells in a low oxygen environment.

We're perfectly capable of, you know, our cells of surviving a low oxygen environment, otherwise we wouldn't be here. So turns out that people have noted, you know, for going back many generations, the cancer grows like a fetus, that it puts on masses of relatively unspecified cells.

So this is a program that's built in. And my thesis has been that we've gone from this fetal what's called symmetrical mitosis to the more adult form of asymmetrical mitosis where the number of cells is not actually

increasing, but just cells are replaced one by one as they are worn out or die.

And the number of cells, you know, once you're sure in your brain or in your liver or in your lung, remain the same, you know, plus or minus. So it turns out that this fetal program was on, then it got turned off, then it gets turned on again.

Well, why can't it go back one more time? I think it can. I think we can heal cancer, not just kill it. And so and you were talking about this tipping point where it turns on turn off.

So what what can a person then bring in in your mind? And obviously, we're still searching. We haven't figured it all out. We haven't solved cancer in our because, you know, we just haven't.

But we're learning more and more as we're going. So with your projection on what you're seeing, how can we shift that tipping point? Well, one of the major things is to prevent the cancer cells from developing stem this that the ability to go dormant and to more have motility move around in the body and have infinite reproduction.

An ordinary cancer cell that doesn't have stem rest cannot reproduce infinitely. It cannot go to the flickering limit. I used to grow cancer cells in the lab and you get them to 50 doublings typically, and then they crap out. They're gone.

You can have more down in the freezer your you're out work so it turns out that these the develop of stem this is really important we have normal stem cells involved in tissue repair.

People often talk about cancer also as the wound that won't heal. Well, one of the things that's going on there is the generation of new blood vessel growth, just like in wound healing and stem cells turning on to replace is lost cells.

Cancer cells can actually become stem cells and they can cannibalize stem cells and use some of their parts in their genetics and stem cells can become corrupted and become cancer.

Like there's actually four mechanisms by which this happens, but it turns out that some of the same things that control the metabolic, like Boswell here and are alpha lipoic acid, curcumin and quercetin and grape seed things we've used for many years and that we know very well how they interact with the standard of care and are actually very useful at this stage.

But there are some new things that have emerged new remedies, a crisis in Ludo and others that we're trying to bring to market that will address some of these things.

So we definitely have to start paying attention to that issue as cancer matures before it goes to stage three and four to try and keep it from getting there.

And it turns out that some of the you know, it's not it's not a whole bunch of new remedies. It's some of the same old, old standards just need to be continued and pushed harder on people while they're going through the standard care treatment to say, yes, we've got to integrate here because those things are killing the cancer.

That's great. But they're not killing all of them, not killing the stem once and not preventing further development of stem this. So, you know, there's there's been kind of a tendency for some of us to hang back and to, you know, let them finish chemo before we do anything to help them, you know, know we've got to be firmer about this.

That's that's the magic moment where you can intervene around surgery and biopsies, where you're getting a lot of stem cell formation around, when you're getting a lot of toxic drugs in the system.

And so that's when you've got this stem mass reaction. It's a natural healing reaction. Body's trying to heal itself. It just is, unfortunately choosing a pathway that's only good in the short term.

So the other thing. Look, I'm sorry. Go ahead, doctor. Oh, yeah. So and in regards to the stem cells and this has

kind of fascinated me, you're alluding to that quite a bit as well, is that you have cancer cells and can kind of shift them back and forth, meaning that it's not that you have one that is a cancer stem cell.

And then another one that is a just a cancer cell. They can kind of move back and forth depending on the switches within itself and the environment, the microenvironment, the tumor microenvironment that it exists with then. Yes.

And that microenvironment is incredibly important for both for the immune system and stem that. So as the cancer cells ferment more, they produce more acid and they aggressively pump it out.

So that gave us another target we can think of before attacked those Efflux pumps, it turns out, are some of the common remedies that are in, you know, tolerated and safe and widely available to do this.

But as they pump the acid out, the environment around them becomes quite acidic. And that's what al cleansing therapies deal with is a little bit of the acidity doesn't really change.

In fact, you know, the cancer cell internally is already alkaline, but that acid produces inflammation. This results in recruitment of bone marrow derived stem cells.

And these are the ones that start to get corrupted and or and cannibalized and start developing cancer stem cells, which are extremely deleterious. So, you know, it's it's a combination of the fermentation of acid.

The ice is pumped out inflammation, the immune response, the recruitment of stem cells to help the immune cells deal with the overwhelming inflammation.

So it's certainly a cascade of events. And so talk to me a little bit more about the immune system, because any time an individual is thinking about, you know, I have cancer, I need to boost my immune system.

And here we actually then have part of the immune system that become a foe, right? Boost immune system. What the heck does that mean? Do you know how many parts immune system has you?

Which ones are going to boost? You know, it's it's a it's a it's an expression we need to forget. What we needed to do is modulate and control the immune system.

And it's various aspects. But I really owe a lot to Dr. Sam Yanek, who's a chiropractor from Eastern States. He's a immunology specialist, runs a group called Cogent.

He's helped me a great deal to understand this as well as, of course, the doctor persona and the research assistants. But what what he's pointed out is extremely important is that the initial immune response, an inflammatory response called th1, is actually able to suppress the cancer.

It's able to pick off loose cancer cells floating around in the system and metastasizing. And it's able to hold cancer in place and prevent it from becoming fatal.

And there's there's certain feedback loops that happen there, particularly through glutathione and interferon gamma that the the the climax of the th1 macrophages in other parts cells of the H1 one system start producing different cytokines that create a feedback loop and it can be very strong, can last for quite a while and keep that immune system under control until you screw it up with radiation or chemo or something else.

But it turns out that as long as you stay in that state, you at least have longer survival and better quality of life. But what happens is all these things that naturopathic doctors in integrative and functional medicine doctors know start to drag you towards a two state poor sleep quality, unmanaged stress and high, you know, high cortisol pollutants and toxins, endocrine disrupting chemicals, you know, the plasticizers and all this other stuff that's in our environment, in our homes and so many other factors that we all like self, you know, lack of exercise, poor diet, all these different lifestyle issues, but particularly chronic inflammation, things like asthma, muscle conditions, people with urticaria, you know, colitis, these things all increased risk of cancer and it's more rapid progression because

they tend to require ath2 response.

Now the th2 response, if it gets established around a tumor, ends up supporting the cancer, it makes the immune system tolerant, it stops attacking the cancer cells.

The immune system doesn't just detect that cells. It detects bad fats, bad proteins, any abnormal chemistry. And it knows right from the start that the cancer's wonky because of these chemicals it's exuding and sets up ath1 response and deals with it.

And fever is an aspect of this. So that's why you see some of our favorite therapies hypothermia, mistletoe, and other vaccines that we've used over the years are very useful because you keep it in that th1 response.

But the lifestyle issues and like, say, you know, various toxins, environment, things are not dealt with by the conventional system tend to drag you into that t h to state and that becomes quite a immune tolerance.

And in fact, the cancer starts to generate th2 cytokines itself, interleukin four, for example, interleukin ten, interleukin 13 transforming growth factor, better tumor necrosis factor.

So these become targets at that stage. We know we have medicines that deal with those things, that the immune system is actually being supported by the cancer.

And in turn the system starts to work for the cancer to recruit cells. It can chop up four parts to give it ATP Energy, what's called the reverse Warburg effect and to help actually have m2 th2 macrophages engulf cancer cells and like a guppy in the mouth of a mummy, carry it to a new place in the body and help it get set up in your brain, in your liver.

And you know, your kidneys are somewhere where it's going to be nasty. So it's very important to try and shift or maintain ath1 state. And there actually are things like quercetin that we that we know impact stem cells.

We know impact mitochondria, we know impact the reprograming signals actually help move from th2 to teach one. I realized in the last ten years of my 35 years of practice that I used to get some better results for some cancers, but to give people more quercetin.

So I started using it again. And what do you know? Things perked up. I'd gotten off track and thought, I'm going to get learn something better, do something like, you know, always look for something better.

Testing, Integrative Therapies, and Practical Treatment Strategies

But I realized actually that was better. I went back to it and sure enough, people survived longer, better in match cases where they were taking quercetin long term.

So I think that there's just a lot of things and a lot of things we can do to naturally to overcome the metabolism, the reprograming, the stimulus and the immune system.

And there are it's a fairly, like I say, a very short list. I've mentioned some of them curcumin. Quercetin Boswell The Berberine alpha lipoic acid are examples.

There's some new ones like smoking known from black seed. I'd like to bring forward as a remedy, a crisis, and we'd like to see better quality possibly on the market.

So I'm working with some companies to do some of these things, but I've got some a little more exotic ideas that we we're trying to get some funding for, but it turns out it's actually fairly simple to do these things and out of this short list, there's always something in there that goes with radiation.

There's always something in there goes with a certain chemo drug. So, you know, there's always something you

can be doing and you should always be doing it because you can't turn your back on it and just let it slide.

So one of the things that we've also found, Doctor, is that some new ideas about lab testing, how to monitor patients more effectively, how to find out within a few weeks if our programs are working, if giving that quercetin curcumin, yada, yada, is actually reducing the succinate or reducing the stem stem, this markers have reduced reducing the markers of mitochondrial stress.

So we're working with the major lab that all the doctors used in North America to start testing for these ankle metabolites like succinate in the urine.

And if we can see them go down, you know, two or three weeks into a therapy, we'll know. We'll keep going. If they're going up or they're not going down.

Well, we can modify the program. This is something I tried to do with the immune cell ratios. So my career, instead of waiting six months in the Canadian system for someone to get their next scan and find the tumors doubled in size, we could test within two weeks of a new program and see if the neutrophil lymphocyte ratio and monocyte lymphocyte ratio was shifting in a positive direction.

So I've given a handout on that for you to give to your attendees to the summit about this and some references on how to use the these immune cell ratios.

But I think we combine testing that out of the basic CBC. You know, it's not a $2,000 circulating tumor test to give equivocal results. It's very simple.

It's very cheap. It's very fast in any lab can do that, do it and we check these uncle metabolites. We can mix and match and try things with different patients and cancers and start to really, you know, find the things that works for that particular patient, that particular moment in their progression.

And these things. Yeah, the different therapies that you mentioned like Quercetin was, you know, curcumin, grapeseed, they are safe to do while you're doing radiation and chemo.

Some are and some aren't. Yeah. So for example, quercetin, I wouldn't give during radiation necessarily, but curcumin most certainly there's lots of evidence.

It's been in all my books going back years now and omega threes, omega three oils are contribute to what are called resolve. And this is something that naturopathic doctor in Germany has taught me is that they have an emphasis there, not on anti-inflammatories, but on resolving the information.

Let it finish the job it is intended to do and complete its work in a way that leaves the system healthy and repaired. And so some of the most of the solvents come from 1 to 3 oils.

So certain other oil slick flax can provide some, but the omega three is very, very great. Good during radiation stops, lipid prox ization most of the burning and damage to the colon, to the bladder and to other tissues.

So it turns out that that's something that is also good for the immune system and and the stem cell issue. So we can all, like I say, out of this list of and I've been accused of creating laundry lists, you know, very long list of things.

Well, we've got now a much smaller list of targets, and we've got a much smaller list of medicines. And there always there are some that are going to be compatible.

You take the new immunotherapy drugs. They're fairly dangerous, but they occasionally work like a charm and turns out that mistletoe works well with them and that's going back ten years, research and curcumin and the omega three oils.

So no matter what, what therapy, targeted therapy, you know, it's Ibrance or it doxycycline It doxycycline We know

that vitamin C, V, vitamin C works brilliantly with it.

So there's always going to be some choices no matter what the standard of care being applied is where we can integrate and support and contribute something significant and stop it from just going quiet for a short while and then coming back and killing it later.

Yeah, I love it. Yeah. I mean, because I the issue is always I have patients like, you know, yourself and many other doctors that I work with with cancer patients is that they just do the standard of care and they shrink the tumor.

And then three months later, six months later, it is back everywhere. And if you then combine the standard of care with these type of therapies, you're then able to, you know, like you mentioned, modulate the immune system appropriately and then also allow the chemo radiation to finish the job.

You know, where you can finish that and finish that inflammatory process and also that oxidative process, you know, to kill it off appropriately. Yeah.

And so I've always been concerned with providing affordable care, perhaps more so than some of my peers. And I've not been a huge user of intravenous therapies, mainly because there's lots of patients can't afford them.

And so or they can for a while, but then they you can't do them year after year after year or and lots of people live picking a big country like Canada in places where they don't have access to these therapies, to hyperbaric chamber, center, IV doctors and to, you know, some of these more advanced kind of clinics.

So I've been trying to find ways that people can do things at home to nebulizer some of these products instead of getting them IV. But do home nebulization of flip percocet instead of IV vitamin C, for example.

And but what I'm finding is that there's there's a number of really small, very modest costing items like vitamin A, for example, can really help mistletoe work better.

It doesn't cost a lot. You might want to do liver tests here and there, but, you know, it's not it's not extremely high cost. So I prefer people to start thinking in terms of crew remedies, not just IVC or not just mistletoe, but, you know, you must have at least three different items going at a given time.

This goes back to my work with particle physics and chaos theory. I won't bore you with the the theory, but bottom line is, I think that most of most people respond better when there's a couple of different elements in the program, because the cancer has a lot of moving parts and you want you want to be tackling these four different key strategies at the same time as much as possible.

So if you're going to do mistletoe, for goodness sake, gifts of vitamin D, give some rishi with it, do give some omega threes with it and keep rotating, mixing it up.

And these don't add a lot of cost, but I think they can add a lot of value. Yeah, I love it. Well, Dr. McKinney, I'm so excited to talk. I haven't read your book, but I'm really excited to read your new book and you bring so much to this field.

And I'm so appreciative for all the work that you do. I what? I don't know, but I'm a consultant. Nutritional fundamentals for health, which a lot of the doctors deal with, is a great, great Canadian company.

And they have had me write a number of clinical handbooks. So I've just recently put out this one on cancer metabolic and epigenetic reprograming called Overcoming Fermentation Oncogene.

And so that's available free of chargeto people who are clients of NFH and they have some of the lectures I've done on these subjects as well. So I certainly appreciate people by my book.

But you know, I've got a lot of this information out there for the good of the profession, good of our our clients.

Wonderful. Thank you so much, Dr. McKinney.

Pleasure. Always a pleasure, doctor.