Introduction and Cancer Research Background

Dr. Yu It's absolutely a pleasure and an honor to to get to to chat with you this morning. you're some of the you work and the the organization. Your youth foundation is is tremendous.

the amount of research that you're bringing forth to define solutions, so many different areas, and especially in the area that that we're going to be discussing today, which is cancer.

So thank you so much for joining me today. You're welcome. So you you're a surgeon and you've you've worked obviously with with cancer and really kind of looked at some of the issues underlying, the cancer metabolism.

Can you kind of give a little bit of a, of a brief view of how you view cancer and what are some of the biggest challenges that we, we've been facing so far?

And, and how far have we come? Yeah, it's a long story. Not easy. And one hour. but, I credit my understanding of, medicine from surgery, actually, hands on surgery.

for one thing, when I was at Johns Hopkins, I. I happened to be assigned to do the MCPC castration program with either, physical surgical castration or PCS, and, I, I followed about 100 men, both of Dr.

Scott was the head at that time and then retired at that year, and Patrick Walsh took over. And, within a year, because I had to take all the calls. All of them became diabetics.

So the relationship of surgery and castration made me understand that this was a lot more complex than just castrating them. Not only reproduction, but affected their metabolism.

So my thinking, quietly, we can begin to, you know, refine. Okay. So the the other thing I just want to tell you is because of surgery for the pelvic, for the women's cancers, I had to prep them for the surgery to get their tissues viable.

And I discovered that, after the surgery, they said, could you give me a two year prescription of what you did to me before surgery? And I said, the is done. Why?

Oh, because I can sleep for the first time in my life in 20 years. You see? So all these things begin to show up. And if it wasn't for the surgery, I wouldn't have believed it.

And that's how it started, you know, in the in the 70s. And right now, I mean, we're we're understanding we used to have the kind of genetic thought in regards to cancer that it was all in the genes.

And if we could figure out the genes and, we could then, you know, alter, you know, create changes, in the genes in order to be able to cure cancer. And obviously that that became, it we then pinpointed gene that related directly to cancer.

So how how has that understanding kind of shifted and and where are we looking now, to be able to kind of, shift the, the genetic or the, the behavior of cancer cells?

Well, let me preface that a lot of the all these things that I learned is not from myself but from others. Warren Schaefer at University of Vermont did a major study, in the 70s, in which he looked at nuclear transfer studies in which they he put a normal nucleus into a cancer cell and then a cancer nucleus into a, and the other cell.

And what he found was it wasn't the nucleus that affected it, but something in the cytoplasm. And that's the

beginning of the revitalization of Warburg's thinking that could it be other organelles that had affected it?

Cancer Metabolism and the Shift Away from Gene-Only Thinking

And Pete Peterson at Johns Hopkins with Albert Lenin Jr wrote Cancer Bioenergetics. And that was a key factor in which he started looking at the organelle mitochondria.

there are others. But the mitochondria was easy because some cells had 5000 mitochondria and they had their own DNA. it was once a bacteria. It became symbiotic with us, and it was always passed on by the mother.

And so the whole concept of, Pet scans became a reality. and Pete Peterson had a lot to do with that, in which he showed that the metabolic aspects of this very primitive, useless cell called cancer, depended on, sugar, mostly.

And what he said was 60% dependent on sugar and maybe 40% depended on oxidative phosphorylation, meaning using oils and things like that. So the shift has come and I just recently wrote and, comment for the Johns Hopkins Medical Magazine.

I said this article on Pet scan was the greatest, revelation in medicine in that 90% of those solid tumors and others dependent on glucose as the first fuel and then later on, glutamine and so forth.

So this is this is a revelation. And, Watson says glycolysis may be the Achilles heel of cancer, but nope, none of our research and clinical work has taken it too seriously because they said, you can't not eat sugar that period.

You know, you can't do it, you can't do it. So let's forget it and let's look at all the other things. So we have the PD1 inhibitors. We have the alkylating, agents and whatnot.

And very little attention has been paid to what you can do yourself. And our foundation was based on three donors. And they said, you can do something about it and you can add to it.

It may not be the end all. And I'm a great believer that a reductionist thinking of one product or one chemical can do it. it's it's it's not reality.

No. Because I mean, cancer in itself, obviously, it's a complex disorder. It's a complex disease. And, you know, with that and it's a living organism, in itself, you know, which is intelligent and adjusts based upon its environment.

So with that, I would assume that we would need to look down at a kind of by a multifactorial approach, so to. Say it's, and it's not an ad, it's not really an abnormal cell.

We have a whole group of 30% of senile cells which are no longer functioning. They're not cancerous, but they're living like your little spot marks on your skin.

But, as Greg Simmons, the Nobel Prize winner for his life said, it could be that, cancer cells are a, an evolution of normal cells that figured out that, oh, my gosh, we have so much sugar, and we don't have a lot of oxygen around.

How do we survive? And it became bigger and bigger and learned to adapt. So in a way, it's a form of evolution, of lack of less oxygen and its mutation as you see it, right as you're living.

Some people and I love what you're saying there, because some people look upon, you know, because you have the anchor genes, you know, present in a normal, you know, then normal genetics and, you know, so they must be there for a reason. So somehow there is a kind of pre programing or that programing already exist.

so it's almost like it then reverts back to a programing that the cell is, is used to kicking into in a certain environment. I mean, what what are your thoughts about that in regards to kind of that survival mechanism that, that exist?

I'm sorry, I'd lost you for a minute. Can you repeat the question? Yes, absolutely. So some some people, I mean, we have the anchor genes. Obviously, they do exist, you know, within our genetic makeup, within our cells.

And so they are present there for a reason. So does it lead to follow, like what you're saying is that in a certain environment, you know, a certain programing kick in, like you're saying, you know, hypoxic, excessive sugar, etc., or a heavy load of chemical toxins, you know, that that moves send the cell towards a different behavior, you know, for survival. Yes.

you know, this is the old fight between Lamarck and Darwin and the, you know, the environment has a lot to do with it. And you only express yourself when the right environment comes.

And, you know, the, the, the, the Lamarckian thought is we have all these exposures good, bad and ugly and there's so many mitochondria and it's very easy for the mitochondria to change their genes.

Not only the that the nucleus, as, Bruce Lipton said, you take a nucleus out the the cell will live for 2 or 3 months. You you break the cell membrane, the, the lipid membrane, and it's gone.

It dies immediately. So it's it's it's a lot of things, but the environment has a lot to do with, what we're seeing. If, for instance, I was just in Alaska and, it's the highest rate of colon cancer in the world, 100 per 100,000.

And very few people know about it. And obviously it has something to do with what they're doing. And we don't know exactly. But one of the things I found when I went to their supermarket, everybody uses critical.

You see, it's, you see what I mean? So we don't know all the details, but some people say it's the, lack of, fiber. Could be. But I went to the tundra, and they all collect vegetables and store it and eat it. See?

But one thing I do notice is that even though all of them have refrigerators, they still, smoke all their fish. You see, so I was, what, the first Chinese doctor who said.

No, no, don't throw away the flounder. Let me take the flounder and and and, use a cooking system for you to see whether you loved. They loved it, but you see what I mean?

So it's not so easy to define which ones are the factor. So what are some of the kind of practical steps that we can then take? and obviously cutting out sugar. Yeah.

Fasting, Ketosis, and Autophagy

Looking at the mitochondria as you know, one of the culprits and, and the development and then I'll obviously I would assume also then control of cancer.

so it first starts with the mitochondria and then it moves to the DNA nucleus, you see. So the mitochondria gave up some of its functions as an evolutionary adaptation to become a pure energy source.

So I just want to make sure you, you guys so. So when it moves down from the mitochondria then to more kind of the yeah. What, what goes on because it shifts, from using the mitochondria up towards a different way of producing energy.

Right. no, it, it, it uses a, it uses a primitive mitochondria and a mutated one. C the mitochondria has its own DNA. 15,000. It's easy to study. That's why Ancestry.com 23rd May exist.

But as a consequence of evolution, some of the, the, the functions of the nucleus as we shift it to the, to the nucleus instead of themselves, they're specialized, they become specialized.

And Peterson showed that the more aggressive the cancer, the more abnormal the mitochondria looks. So you can actually see the difference. You can look at a Condra and see the difference.

Yes, you can see it. And that's when I sent you that reference on, cancer by a and he, he draws it out in those days when there wasn't very good electron microscopy.

Now we have electron microscopy and you can see that it's, highly abnormal. as it becomes more and more dysfunction. And is there anything because obviously then the thought is if we can then shift that mitochondria to a more normal function, then it would then revert back to more a normal functioning cell.

You like to say that, but it's not always possible. Now one thing I would say, you know, I'm a great believer in, the Cornell study, many in the 1940s, with Cleve Maclay and Roy Walford, in which he, you know, I've seen cases of this where, you know, we're talking about calorie restriction.

We continue our keto genesis. But I have patients who are very disciplined in their in their pursuit. This the eradicate of an abnormal cell. And they have used the water fast before five days using adding minerals, adding vitamins.

And later on they add other things. But in those four days the body has this wonderful intelligence. No food, no function. Let's get rid of the seen ourselves.

Let's get rid of cancer cells which are nonfunctional and create what we call autophagy. Now autophagy is very controversial, but when you have no food, none.

No calorie restriction, even things happen because your body says, hey, I got to live and I got to keep the functioning organs. So in that way you can do destroy useless cells and then recreate mitochondrial biogenesis is one of the best ways to create mitochondrial biogenesis.

Is the cold being and cold water, because something has to happen to create that energy to keep you warm as mammals, you see. So it's, it's it's adaptive, but it's not easy.

But I have seen I have actually seen, you know, we use, I don't know whether you use, the liquid biopsy signatera by Natera and before the chemotherapy, after they had a high load of, the cancer.

this patient just took it upon themselves to do a five day fast, water, taking vitamins, taking minerals. And we we did the signatera right before the chemotherapy without knowing.

And it went down to zero. Went down to zero. So, so just the five day fast, you know, the circulating tumor cells went down to non detectable undetectable.

So this is a finding you know I'm learning from my patients. My patients generally very smart because they come to see me a second opinion. But they just did it on their own without telling me is he and the oncologists didn't know it.

So there's data technology which is showing up. And one of the biggest, advances was the genomic study of human cancers, because we found out there's a lot of proteins, mutations which are not easily definable before that.

Now we see you see. So it's opened up a whole new field without intending to do that, we were looking for the genes for cancer. Couldn't find it. See. So those things happen.

And, calorie restriction is a human adaptation to something they know. keto genesis is another attempt at using calorie restriction. So these are all spectrum, Woolford was the biggest, researcher for the biosphere two, and he showed that when you use 1200 calories, everybody was totally unhappy.

But all their biomarkers went down. And then as soon as they got out, it all went back to not the usual bit, you see. And so what a fast is a extreme calorie restriction.

Overnight fasting is a fasting attempt. But people who have too many refrigerators full of food, it's a modern

adaptation. So you see the whole spectrum.

We're all talking about the same thing. Marie and Linda shows a diagram in which she says, if you cut the cut, the food out, you automatically go on to ketosis because there's no other fuel. So.

yeah. And, and the ketones in themselves, do they have a beneficial effect? I mean, because we're talking about, you know, huge. Huge, huge ketones. And George Cahill, one of my professors at Harvard, and Richard Veatch, the late Richard Veach, were the ones who question, can you not eat and survive?

And George Cahill at the Lahey Clinic, was the first one who said, can we use ketone esters? And the cheapest ketone ester is a short chain fatty acid, coconut oil.

They say it's it's it's not to say butter is bad. It's not to say all the others are bad, but it's a little more difficult to metabolize. And the cancers eventually can use that.

But it's not easy because they're a primitive cell. So what I'm hearing is that, initially then the ketones becomes a very powerful approach. But then over time, then maybe the cancer will then adapt and be able to use those.

Yeah, I suspect that I can't prove that, but I I've seen it clinically, so, you know, it's a constant evolution at your fingertips right as you're talking.

And so, you know, these are all methods that we're discussing and it's attractive, it's sexy, it's Google positive. This our foundation said we can't do that because we're trying to help the people who are desperate, in trouble, not the donors.

So we don't get a lot of donations. except, you know, a few people. But you could see that this is an attempt and even, scifri doesn't say calorie restricted.

He says restricted keto genesis to make it more attractive. But I don't think that's quite correct. But it's it detracts people. And so in your mind, you have an individual that's starting this journey and trying to figure out what what are the what are the appropriate measures to take?

I mean, so we talked about, you know, the fasting and, and how the, the autophagy that takes place, cancer cells and this, you know, gets eaten up because, you know, bad cells, you know, have to be used up.

So we can use the debris from those cells to produce, tissue. Healthy tissue. And then talked about then also, you know, the cold in order to stimulate them, the ridges.

yeah. Those are all, what you could do by yourself, I don't think I think you need professional work. You need, drugs. one of them would you believe, happened to be metformin.

Metformin was pioneered, actually, by Pamela Goodwin at University of Toronto. And she was very brave. And she stood up on herself and said that metformin may be retarding the women with breast cancer.

And so finally, last year, the whole Women's Health Initiative group, which Barsky said, yeah, you're right, but it took her 6 or 7 years to make that comment of a repurposed drug.

They say, so, you need more than that and are my experience is that the analogy should be like a war. You know, you first cut off the water supply, then you cut off their food supply, you give them dysentery, and then you send the troops in.

You don't send the troops in right away.

Repurposed Drugs and Metabolic Therapies

And the whole concept of, reductionist thinking is looking for the magic bullet. Always. It's so cheap and so sexy and so attractive. So with metformin and talk to me a little bit about the mechanism of metformin.

Why is that such a, an important repurposed drugs in regard to cancer? I mean, obviously we we talked about the control of, glycol, you know, like Colossus, you know, using sugar, you know, for energy within the cancer cell.

Is that the only mechanism of metformin to control that? I don't think so. And I don't think we all know. Okay. You know, metformin is supposed to suppress glycogen conversion to sugar in the liver.

But there's something else that's going on. And, you know, there are people in England, there are people in India, in China who are looking at repurposed drug as research tool because they can't afford to to make monoclonal antibodies.

So what's going to keep them busy? See, so there's a lot of research going on. And you've heard of ivermectin. You know. But what I'm saying is that you can use safe doses of a drug that's already patented, that's lost this pen to use as additions.

I told you earlier, we use inverse of glucose, like the mannose. It can't be. It used to be used to kill E.coli for urinary tract infections, but it also has an effect on cancers because they can't use it.

You can use L glucose instead of deep glucose. That's why di chloral acetate and deoxy glucose came into being. And also we chat a little bit about, you know, D ribose as, as well, you know, for I mean so, so, so using them different types of sugar will will support the metabolic or but healthy cells are able to use that.

But then cancer cells are not able to. That's right. You're you're you're tapping on their evolutionary adaptation. You they can't handle those things.

You know, I, I was in contact with, Greg Simmons, once, because he was studying, breast cancer and prostate cancer. And he found that the Jackson was a repurposed molecule, but he didn't think of digoxin as a small dose.

It may have been too high of a dose, but it also has that effect. There. Lots of drug, Prozac, ivermectin, you know, the toxic cycling. You could see that because, recently because of the Covid, two years, we know that a zit or a mycin, which is an antibiotic, will also kill viruses.

You say so just because we have a research that's beautifully done logical doesn't mean that's all that does. We know it works because we've been able to retard my own, clinical experience.

and I say this, everybody has to have clinical experience to be a, moderator, and not see patients is useless. You can't, you know, you don't see the data.

I've seen lung cancers. I, I expected them to die. The only one that they pursued seriously was metformin. And there's still a lot. To see. And so these when you then go pursue then looking at the repurposed drugs I mean, because you have these kind of, you know, like Jane McClellan chess or Metro map, you know, where you go.

Yeah. Yeah. So do you have to kind of be that meticulous in regards to developing your protocol or, or is it as easy as bringing in, you know, metformin and maybe boxes cycling or, or a how, let me just say one thing.

That's why you have to see patients. We know metformin causes diarrhea and severe abdominal pain because it's doing something to deliver. Well, in India, they figured out they could use metformin as a cream.

And we have things like pantry van carrier that goes into the system. And they've done a nice study on it. So a lot of times we'll use a metformin cream that you put on your wrist. See.

And and it has the same, same kind of delivery. I mean you're. Yeah we've seen yeah we've seen it. It's it's published. So it's not so simple as just using repurposed drugs.

And the dosage is not the same. For instance, losartan is known to prevent angiogenesis. Okay. And my, that my teacher, Judith Folkman at Children's Hospital, the late said you can use these repurposed drugs and you can use metronomic chemotherapy to hinder the angiogenesis factor.

It's another way of starving the cancer. You can't in the blood vessels. You don't give them the food. You see. So unfortunately, Doctor Folkman passed away.

But he would have pushed this to the end. Agree more than ever, statin and all the drugs that we have going, in fact, since platinum from the animal studies did not show anything, but it worked for the, patients.

Now you're killing the patient along with the cancer. So that's why the maximum tolerated doses became so difficult. And Judith Folkman believed that you should constantly give the chemotherapy at maybe and minuscule doses.

And so previously, you made the statement is that you want to kind of cut off the water supply, cut off the, you know, the food. I mean, you want to make.

Yeah. The whatever it is that you're attacking as weak as possible and then bring in the troops. So many. So from my understanding then is that you do these kind of starvation mechanism using like repurposed drugs, how you're eating, etc., and then bring in a lower dose and of, of chemo, you know, for the kill.

so that's one way to approach it. you know, with the it's, it's you got to save your energy. And in other words, to make a PD1 is basically mainly making a monoclonal antibody.

And why is the N enzyme protease so useful? Because it's an indiscriminate destroyer of any proteins that are foreign to you in your lymphatics and and your circulation via.

As a surgeon, being a dummy saw that the Ecce Moses and the surgical debris would be cleared within four days. Okay, so now we brought in kind of another factor.

So we brought in kind of the proteolytic or kind of a protein digesting enzyme. Well, whenever you have debris, whether it's cancer cells from radiation or from chemotherapy or from a PD1 inhibitor, you have fragments.

These fragments are not normal. And the protease, when you're not digesting food, your heating will go into the lymphatics and into the circulation and indiscriminately seem to gobble up these pieces.

So my simple thinking. So this, this, this then kind of bringing in another layer on to kind of the treatment protocol. Yeah, we're talking about like the Kelly protocol.

You our Nick Gonzalez, what he was doing. the same Kelly protocol. Pam McDougal all the same. They don't follow the same protocol. They use mostly animal enzymes.

was, cows, and now it's pig and cow. So they work only at a pH of eight. But the Japanese have all the Aspergillus or raise the fungal enzymes that work from a pH of two all the way to ten.

So take your pick. But what I'm saying is that there is maybe a cheaper way to deal with the constant mutation of these cancer proteins that sometimes will form debris from what you're doing, radiation, chemotherapy and the cancer cells, will be, recognized by a amino acid that just changes this configuration and attaches and kills it, or eats or metabolizes.

So, you know, so it's a it's a easy way that Kelly use maybe we don't understand all of it, but we do understand some of it. So so what is what is our understanding so far.

So on. And so the because like Kelly was dealing with pancreatic cancer and he, you know, took a huge amount of these pancreatic 14. 40 to 70. Yeah. Yeah. So, so this is, this is the protocol.

And of course, Nick and Pamela also adapted, to handle some of the other burden body burdens. But basically they using a protease enzyme to get rid of all the debris and new mutations.

That's why Signatera so good, because you could see the blood levels before you do a Cat scan. You could see it. And it's it's actually paid for by Medicare.

Now, you see. So we are making advances slowly, but not always the Google the sexy. There's only one sexy PD1 inhibitor. Does de la Mab. Have you heard of that. I haven't no.

There's still a Mab was funded by a small foundation, in new Jersey. And, and of course, Sloan-Kettering, had some money and they took 13, rectal cancer patients with metastases, who had the right genomic profile?

And within a short time, they cure all of them. Now, I haven't seen what's the latest on dose da la Mab deal as to, like, maybe I memorized it. It was in the New England Journal medicine.

And this is one of the biggest breakthroughs in immunotherapy. Keytruda was the other one. President Carter used it, you see. So there are ways to cause the debris.

And we can measure the debris. Now in forms of a mutation, which leads to a protein. And so, so help me understand. So the Signatera does that measure that debris or.

It'll pick up the cancer DNA debris and or the cells. So if you would then do like a radiation or do you know, use this drug, I assume that there'll be more debris.

You know, there's lots of debris. There's lots of debris. In fact, you have lots of debris, like the TPO antibody for thyroid, you see, and you have a spike protein from perhaps what we call the Covid vaccination.

And you can get rid of it with what David McCullough said very nicely with natto kinase, a Japanese enzyme. Yeah, yeah. And bromelain pineapple enzyme.

So you see there's a lot of proteins floating around that we don't measure. And one of them could be a a, cancer protein fragment or debris. And then using these proteolytic enzymes, you know, it becomes a very powerful tool then to clean up this debris that can then fuel cancer.

It's so cheap, comparatively to a PD1 inhibitor, a monoclonal. And it takes a lot of work to make a monoclonal antibody. But it's very sexy and it's very popular and it's very reductionist.

Proteolytic Enzymes and Immune Support

The stupid little protease enzyme is so cheap comparatively that you you you have to wonder if I didn't do surgery and clean up all the debris from all the surgery I did, I wouldn't believe all this.

You see. So surgery makes you really deal with reality in my book. And, you also you talked a little bit about, I mean, prior to our current discussion, you talked a little bit about how the enzymes also allow kind of releases the immune system to be able to be more effective in going after cancer.

So this, the work done by single love at, Charlottesville. And he, you know, he put a lot of work together from other people, but TGF is a cytokine. TGF causes the, lymphocytes la, K, NK, CTL not to work on cancers.

It blocks it. When you add the macro globulin with the protease enzyme or methylamine, it forms a triad, a complex and unblocks. The lymphocytes to go and attack it.

So a lot of times and in surgical pathology, when I look at the specimens that I just cut out, I see lymphocytes in there, but they're not doing anything among the cancers.

So it could be those that can work if released. And so he did a, you know, beautiful study. And, I just happened to be a bystander looking at this. And I tell you one thing, I'm a bystander looking at the first time I saw calorie restriction short term was when I was in the operating room coming out to take a bathroom break, and I saw this thing in the doctor's room saying, short term calorie restriction is 70% as good as long term calorie restriction.

But, you know, Steven Spindler and I said, I think I'll steal this paper and go home and read it, you see. So a lot of work has been done by numerous people.

And, I'm just a, you know, a, a, surgeon who happened to notice things. I want to go back a little bit to some of the repurposed drugs because it's such a fascinating subject.

You know, I know you work a lot with, you know, Professor Thomas Seyfried, and he, one of the ones that he uses as Dawn. And then also there's another one that has.

Done is just, you know, done as a metabolic, blocking agent. It blocks glutamine. It's not a repurposed drug. It's a metabolic approach. But unique glutamine to survive.

That's why we wrote pulsed. You can't use it all the time. And that raises the whole concept of maximum tolerated doses that we all use. But it's too much.

In fact, in homoeopathy, they say if you don't use maximum tolerated dose, it may have a different effect. I met Doctor Piggott in Strasbourg, France, and he said, if you use that diluted form of chemotherapy, meaning ten to the minus six power, you can decrease the side effects of MTD.

And I didn't believe it. So I said, do you mind if I visit you? I did, and I saw it, you see. So the whole logical, beautiful paper may not be the reality.

So we use his approach in micro nano doses so that they don't lose their hair, they don't get the anemia, they don't get the mucositis, they don't get the, you know, neutropenia as much.

Sure, they still do, but it's definitely less. And I wouldn't have believed it unless I personally experienced it. So ten to the minus six power. I mean that's that's right.

Ten to the minus third power, ten to the minus six power. The best paper that was really honest was written by Jack Henkin of Abbott Labs. And he said, and this is what Judith Folkman later on said, is that when you use a micro dose, you can even get an effect on the angiogenesis.

You see, and I didn't I read that paper, maybe 100 times because I wasn't sure. But in other words, Avogadro's number six times ten to the 23rd does not mean that if you negate that there's no more molecules, there's molecules in there, and the water has a memory of the molecule.

So how how would this be administered? How is this administered than just intravenous or how. Oh no. No, they just, doctor bingo just uses a sublingual approach.

You say, you know, people think chemotherapy always has to be given IV in in England, they give it oftentimes subcutaneously. Yeah. You see, you learn something just reading.

Yeah. Yeah. And yeah. That that that that's that's amazing. That's amazing. So we like we like transdermal hormones because it, it actually works so that the liver cannot see it on the first pass.

It can't see it. No fact David Zorba, the owner of Xti labs, as does Fingerstick. And what the Fingerstick does is it catches lymphatic, arterial, venous and fat tissue and interstitial tissue, and they can measure the level of the hormones maybe ten times higher than blood.

See? So blood, is that the only way? In fact, I would love to measure the lymphatic levels. So the easiest way to do

is the finger. Yeah. Yeah that's amazing. So.

Just to kind of I'm trying to kind of wrap my head around all this. So combining all of these things, I would assume that'd be really, really powerful.

I mean, you, you you combine that the dietary aspect, you know, bring in ketones, you bring in the, the short term fasting, you know, because 70% is still good.

and then bringing in the repurposed drugs and, and it sounds to me like metformin is something that pretty much. One of it's one of the first ones. But there I can list for you, maybe about 50 of them.

Which, which ones would be your priority list or to say of, of the different or it depends on which kind of cancer and depends on which kind of genetic mutation.

well, it's a, it's a, it depends on what type of, of cancers. you know, so, I mean, the losartan group, hypertensive drug affects the vascular tree. even Prozac affects blood brain barrier, you know, so you know, it it depends where you hear about the oxy cycling.

the benders, all my benders, all I have, very close colleague who's working on my bend dissolve. glioblastoma is at Hopkins, but you can use for bend.

Dissolve. but that's popular. The non popular ones are the CNS effects. And, I would say the, digoxin is one of them, you know, so there's a lot, we also use Accutane, which is anti pimple drug, which is very powerful and fact we have to get permission to do it as long as they're not childbearing age.

And it actually causes fetal genesis of, abnormal fetuses. So it affects the generation of tissues. See, we don't use it all the time, but, you know, those are all available.

And you don't have to use maximum tolerated doses, like for pimples, which is ten milligrams three times a day, you know, so there's a lot of them. And that's where the rest of the world, besides America, will be championing that, starting with, you know, UK being very, very, very good.

There's a fellow named La Senti who just moved there to do all repurposed drugs. So the habit. Yeah. So let's talk. You talked about glioblastoma because that that's a really difficult you know, obviously it does not have very long survival.

So did you mention that the Accutane and Prozac would be good options for that or. I didn't mention that for that specific purpose, but there was a fella who was a scientist who cured himself of blastoma.

He wrote, and I forget his name, but it's, well, very well written. And he use Accutane along with chemotherapy and, you know, and he I talked to him.

He has other problems now, medical problems. But, he used a accutane as one of the repurposed drugs. Yeah. That's amazing. what what are some of the other.

I mean. One thing I should mention about glioblastoma, you know, part of the ketogenic diet, was, was promoted at Johns Hopkins by John Freeman, and he passed away, but, he used it for epilepsy, little babies with epilepsy.

So it's been around a long time. And, and I asked him, I said, did you were you able to, propose to the neurosurgical department, which handles glioblastoma, the failures.

Would you would they be in with it?

Glioblastoma, Sugar, and Multi-Pronged Treatment

He says, I actually wrote a proposal, passed it with the IRB and never got one consult is a glioblastoma, is a very primitive cell. And you know that Alzheimer's is related to diabetes type three, in which the brain can no longer use sugar.

That's what our conference, the two tripping over the truth conference was is cancer, which uses too much glucose, and Alzheimer's, which cannot use glucose ten years before they lose their memory.

So now the Pet scan is medically approved by Medicare to be the first test for Alzheimer's disease memory loss. So I think this is going to be an epidemic because we're seeing it, but it's just the opposite.

So glioblastoma really uses sugar maximally not like the other solid tumors. And this is where Tom Siegfried is pushing it. But I still feel that you have to use a multi-pronged approach like Jane McClellan.

That's why I wrote the forward for her. I said a similar in the Atlantic Ocean alone needs to find a way. It doesn't matter what. They have to think of something that's not logical, that may help them.

So that's the kind of personality that I liked about her to be able to attack this problem from a totally different standpoint. Yeah, yeah. And and the beauty, you know, with her is obviously she's not a medical doctor.

She's not a so she comes at it from a layperson perspective, a different way of thinking. That she's a survivor. Whereas Tom Siegfried wrote, he writes beautifully and I would I would coin that because Pete Peterson told me personally, this guy is one hell of a writer.

You know, he's a great writer, but it doesn't mean what Warren Shafer did is all completely one reductionist thinking. And and I also want you because you sent me an article.

I actually yeah, I was reading in regards to, sugar also, impact or modulating the immune system response. I mean that that was, to me such a fascinating.

yeah, fascinating kind of, yeah, yeah, it was a fascinating article. So, I mean. If you want to know something interesting for a virus to attack your cells, they need to have a sugar coating.

And it's the work is being done in Denmark at that. So sugar is a bad actor. So if you're excessive sugar, then obviously the viruses can. Then they get the coating.

Everything bacteria, you know the mosquitoes bite you more if you eat a lot of sugar. My secretary stopped eating sugar because she had to lose some weight.

And she said, the mosquitoes are not biting me. Is it? So it's a it's a molecule that enhances and facilitates the invasion. So we, as a urological cancer surgeon, I often treated women with urinary tract infections.

And we give them d mannose and epi d glucose. They get poison. It's incredible. A not only metabolism is using molecules that they can't use. Yeah. Yeah, exactly.

That's why that chloral acetate made a splash, you know. Yes, yes. So so so my understanding from Doctor acetate, I mean it's interferes and with the metabolic process of, of the cancer the fermentation cycle and producing lactate.

So it any anything else in regards to DCA diet or acetate, though we should understand. I think there's been a hindrance of research on that field. People practice it, but I am not sure it can be done only as one tool.

You see, I think you need, a conglomeration, a multi, synergistic effect. And DC is one of them that causes some side effects. Deoxy glucose, which is plural deoxy glucose for the Pet scan deoxy glucose is a not a real sugar.

So the the cancer cells when they're starving they attract attracted to that by mistake. Same way with Don and the

glutamine blockers. In fact, a Julia Ross, friend of mine in California says you want to get rid of sugar, indulging.

Take glutamine, amino acid, and it works. The problem is, glutamine and sugar are both food that the cancers can eat. See? So it's not something simple and logical and put into a nice lecture.

You realize that you have to learn how to. The art of medicine is very different from giving a lecture in medicine. Yeah, yeah. And like like you mentioned, it's it's one thing to to the research versus the practical implication or the, the phenomenon.

So to say that you're observing, you know, versus just, you know, in a clinical in vivo in vitro, experiments. Right. That's right. I mean, as I get older, I'm becoming more like Janet, trivial saying that, I want to make sure that it's real.

you know, a lot of, studies. I can look at a journal, and I read a lot. I read about 60 to 100 articles, a month. And, I could tell right away whether it's real or not.

just because you do it in invitro doesn't mean it works in invivo. And does it work in human animals? That's why calorie restriction is so powerful. It almost does it for everybody.

And Woolford did the last one. Yeah I love is there any before we conclude. Is there anything that you feel really should be communicated. You know, to to this group of people that are trying to understand how to battle their own disease or disease of a loved one or even, you know, doctors out there that are looking for directions.

Well, you know, I don't know everything, but I do know that there was a story relayed that the people in the concentration camps outlive the people who finally came out and ate all they want.

So the epigenetics of, of, life is real. And it's not to say that you have to follow it completely because humans have to enjoy it. I always tell the patients, you got to be happy and you got to be happy to see me.

If you're not happy and ashamed to see me, then I'm not doing the right thing.

Hormones, Breast Cancer, and Closing Remarks

So you have to use your artistic temperament to manipulate things that you love and eat it, but not go overboard, and not to just totally rely on that.

Yeah. Yeah. Well, Dr. Yu, thank you so much. And thank you so much for for the foundation you created. there's so much, for people to go to your page, you foundation talk is a tremendous amount of information there, and then you're doing amazing work.

So thank you for that. You're welcome. I would say one thing about, breast cancer. Just because we're seeing so many younger women. one of the things that Dr. Zava taught me was that when you use a topical, low dose progesterone, it can down regulate the estrogen receptors, which are what oftentimes related really logically as dense breast.

And you can you can undo that. So it's something that a lot of women can learn surprisingly. pelvic and adrenal tumor specialists. But here I am talking about breast cancer because it's a totally Pet scan positive, cancer.

And you can manipulate the hormonal part using human identical hormone, and you can change the world in a big way that we can't do with all the other types of chronic diseases.

So, so on that I mean, it seems to me that the, the, the topical metformin, you know, to, you know, avoid the GI discomfort, you know, distress and then also then a topical low dose progesterone.

what kind of dosage are you talking about when you say at. Most 20mg, talking about minuscule amount, you

know, your body level is 20,000 pico grams. When you're age, 20 childbearing age, you don't have it anymore.

You don't have a corpus luteum at age 40. And so you still make some estradiol from the fat cells. And that in some ways maintains the breast density that you see on mammography.

So we have patients who have huge amounts of density. And when they use the progesterone it definitely decreases. It doesn't take it. It will all the way.

But the progesterone balancing the estradiol has a huge effect on women in their behavior, in their the way they look and preventing huge problems ahead.

Yeah. Yeah. Beautiful. Well, thank you so much, Dr. Yu. This was wonderful. Thank you. And thank Pamela McDougall. And I hope her work, gets some visibility because I think it's what we call a phenomena.

Looking for a rationale and, hopefully that she could make, an imprint, with naked thoughts. Yeah. Yeah. yeah, she's a dear friend of both of us. And she the work that she's done, you know, talking about the proteolytic enzymes, you know, to kind of follow up along with Nick Gonzalez.

yeah. Starting with Dr. Kelly's has been phenomenal. So, yeah, it it is is such a powerful tool. So thank you. Welcome. Thank you for the interview. Yep.