

“Terrain and the Whole Person in Cancer Care” (Nasha Winters, ND, FABNO)

[#95]

Brad Power

May 1, 2024

“We look at our patients' labs every single month. Then we regroup, plus we check in periodically within that. If something starts to change before that next monthly lab is set, we're going to test sooner than that. This is how we adjust course and then know what therapies are working when and where.” – Nasha Winters

“It's through this methodology: “test, assess, address, don't guess”, that I find that my outcomes might differ from those of my colleagues, because we are following data, not dogma, and we're never guessing in this process.” – Nasha Winters

“Everyone should be worrying about meditation, acupuncture, nutrition, dietary, massage, lifestyle modifications, yoga, exercise. We'd all be served with that, not just the cancer community.” – Nasha Winters

“When you take all type stage 4 cancers, and you put them into a bucket, at the end of five years, the average is 12% of those people are still here. ... At the five year mark in my patient population, over 60% are still here.” – Nasha Winters

Meeting Summary

Advanced cancer patients are motivated to leave no stone unturned in searching for ways to treat their disease. They may not like their odds in following standard treatments; they may want to know what other combinations of therapies might complement their treatment; or they may have heard stories about "exceptional responders" who defied the odds and beat a terminal diagnosis yet avoided standard treatments. This pursuit can lead them to find treatments that are not (yet) sanctioned by the medical establishment, which go by a number of names: "integrative oncology", "complementary therapies", "non-Western treatments", "holistic medicine", and "alternative care". A common principle is to treat the whole person, not just the disease. Examples of alternative treatments include acupuncture, meditation, intravenous Vitamin C, hyperbaric chambers, massage, drinking green tea, mistletoe, dietary supplements, and the ketogenic diet.

Nasha Winters, ND, FABNO, is uniquely qualified to explore the opportunities and issues in pursuing non-standard cancer treatments. She is an exceptional responder herself, having survived a fatal diagnosis of ovarian cancer when she was 19. She has been working in the healthcare industry for over 32 years. She is a nationally board-certified naturopathic doctor, and is a fellow of the American Board of Naturopathic Oncology (FABNO). She is executive director and Co-Founder Of the [MetabolicTerrain Institute of Health](#) which promotes the metabolic approach to cancer by treating the root cause and symptoms of each person's unique cancer process through her Test, Assess, Address (TM) methodology. MTIH is making health within R.E.A.C.H. – Research, Education, Advocacy, Community, and Hope – and eventually leading to the creation of a biophilic-designed hospital and research institute on a 1200-acre

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organic, regenerative farm in Southeast Arizona. She is also CEO of Dr. Nasha, Inc., consulting with physicians and presenting on stages around the world, educating hundreds of professionals in the clinical use of mistletoe, understanding of metabolic oncology, and through her creation of robust educational programs for both healthcare providers, institutions, and the public on incorporating vetted integrative therapies in cancer care to enhance outcomes. Dr. Nasha is a best-selling author of [The Metabolic Approach to Cancer - Integrating Deep Nutrition, the Ketogenic Diet, and Nontoxic Bio-Individualized Therapies](#), co-author of [Mistletoe and the Emerging Future of Integrative Oncology](#), and the host of Metabolic Matters www.metabolicmatters.org podcast, another platform to bring awareness and empowerment to the public.

Why should you consider integrative/metabolic/naturopathic therapies?

To improve outcomes from your cancer treatment, you need to consider your “terrain”, not just your tumor, and tailor your treatment uniquely to you. Traditional standard treatments can be too blunt, delivered according to a standard protocol, and miss critical factors that may impact you, such as your gut microbiome, immune system, inflammation, hormone modulation, stress, and mental and emotional state. For example, drugs are typically delivered at the maximum tolerated dose, rather than minimum effective dose.

What qualifies as a valuable treatment to consider (or a scam) can depend on your mindset. There are three valid mindsets you can use when evaluating integrative/metabolic/naturopathic therapies:

1. **Natural:** leaning into combinations of non-standard integrative, naturopathic, and metabolic approaches
2. **Complementary:** looking for adjuvant therapies to enhance your primary treatments
3. **Medical evidence:** relying only on evidence from randomized clinical trials

For this discussion, we focus on the natural and complementary mindsets. In a [companion discussion with Bapcha Murty](#), we focus on the complementary and medical evidence mindsets.

What can you do to manage your cancer more holistically?

- **Take multiple perspectives:** Get a comprehensive picture of all of the drivers of your cancer, your mitochondrial health, including your epigenetics, metabolics, toxins, microbiome, immune system, inflammation, hypoxia circulation, hormone modulation, and mental and emotional health. Don't rush to try new treatments without first assessing your terrain to avoid negative responses.
- **Test:** Get extensive and frequent testing to predict cancer risk and progression.
- **Personalize:** Get tailored guidance which takes into account all of the data about you. Protocols don't work. You need to test frequently and tailor your approach.
- **Adapt:** Use adaptive approaches based on frequent testing, adjusting treatment based on your current situation and individual needs

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- **Combine:** Consider a wide array of complementary tools, adding to the standard of care, including off-label drugs, nutraceuticals, supplements, herbs, and lifestyle modifications, to target specific health issues.
- **Advocate:** You need to take your health into your hands and become an empowered, educated advocate for yourself.

What are some promising integrative/metabolic/naturopathic therapies for cancer?

- Various forms of fasting, therapeutic ketosis, restricted window eating, fasting, mimicking diets, especially to sensitize cells for radiation treatment
- Oxygen therapies, like hyperbaric oxygen, especially to sensitize cells for radiation treatment or with chemotherapy
- Glutamine blockades to slow tumor growth, alter the tumor microenvironment, and promote the production of durable and highly active anti-tumor T cells
- Off label drugs
- Metformin to inhibit growth and promote differentiation of ovarian, endometrial, and breast cancer, and reduce PSA and delay the progression of prostate cancer
- Certain supplements that change metabolic pathways
- Photodynamic (combines light energy, usually from a laser, with a photosensitizer drug, which makes it toxic to a targeted tissue), for several cancers, such as skin, lung, brain, bladder, pancreas, bile duct, esophagus, and head and neck
- Mistletoe as a complement to chemotherapy and for quality of life
- High dose IV vitamin C
- Hyperthermia (heat or cold), especially as a complement to immunotherapies because daddy social back
- Deuterium depletion of water, as an adjuvant, caused 3-7 fold increases of median survival time in lung cancer, twofold in advanced breast cancer, and also prevented recurrences of early stage breast cancer
- Molecular hydrogen water (“H₂”, induces anti-proliferative, anti-oxidative, pro-apoptotic, and anti-tumoral effects)

How would you know whether an integrative/metabolic/naturopathic therapy might be right for you?

If your mindset (as described above) is natural or complementary, then you will want to consider metabolic or naturopathic treatments. However, evaluating medical treatments is not easy, especially when they are non-standard and lack traditional evidence.

Most patients and caregivers who lean to the natural mindset solve this difficult treatment evaluation challenge by finding and relying on a quality natural healing center and organizing a team, including some combination of (1) a doctor, (2) a nutritionist or naturopath who specializes in oncology, (3) resources at the integrated oncology department found at a nearby academic research cancer centers.

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You need to be prepared to pay out-of-pocket for these therapies. You might see a doctor in a natural healing center every three months to advise you on things like infrared sauna, ozone therapy, grounding mats, and red light therapy, which can cost something like \$600/hour. A supplement program can cost over \$650/month if you are buying only the best quality supplements. The equipment can be expensive. You will need to pay for treatments, such as a nurse practitioner who delivers IV vitamin C treatments every other month.

How can you learn more about evaluating complementary treatments?

- Read or view our discussions with [Mark Taylor and Gabriele Gavazzi](#), and Bapcha Murty on complementary therapies and the evidence they have gathered.
- Join the many Facebook pages that focus on health, healing, and natural remedies, such as Jane McLelland’s off-label drugs for cancer, the Patient Led Oncology trial group, Integrative Metabolic approach to health and wellness, Medicine Cabinet-Natural Healing Remedies, Beating Cancer with Diet and Lifestyle, and many more.
- Read books on natural health and wellness.

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Meeting Notes

KEYWORDS

patients, cancer, work, therapies, labs, tumor, treatment, terrain, tests, standard, testing, doctors, proteomics, platelets, metabolic, approach, care, data, mitochondria, helped

SPEAKERS

Nasha Winters (73%), Brian McCloskey (8%), Amit Gattani (6%), Eric Hall (5%), Brad Power (3%), Jeff Krolick (2%), Bapcha Murty (2%), Carla Vass (1%), Chad Magnussen (1%)

SUMMARY

The conversation centered around the importance of integrating conventional and alternative therapies to improve patient outcomes in cancer treatment. Nasha Winters emphasized the need to consider the terrain when treating cancer. Jeff Krolick, Eric Hall, Brian McCloskey, and Chad Magnussen shared their experiences with personalized medicine, metabolic-centric approaches, and holistic healing. Dr. Winters discussed the limitations of traditional standard of care treatments and advocated for tailored approaches that address the whole person, including the gut microbiome, immune system, inflammation, hormone modulation, stress, and mental and emotional state.

OUTLINE

Integrative medicine for cancer patients with a focus on a naturopathic approach.

- Nasha Winters, naturopathic doctor and integrative medicine expert, discusses her ovarian cancer diagnosis and treatment.
- She shares her personal experience with cancer, living well with the disease.

Cancer care focuses on terrain, not just tumor.

- Instead of “molecular tumor board”, a “terrain board” concept challenges the traditional tumor-focused approach in cancer care.
- Dr. Winters discusses 10 drivers of cancer, including epigenetics and metabolism, and how they interact with your personal blueprint.
- She emphasizes the importance of understanding your unique genetic and environmental factors in cancer treatment.

Cancer diagnosis, treatment, and prevention through mitochondrial health analysis.

- Dr. Winters highlights the importance of the gut microbiome in cancer treatment and prevention.

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- She discusses the interconnectedness of the immune system, inflammation, and mental/emotional state in cancer development and progression.
- She discusses the importance of testing for mitochondrial health, including CBC and organic acid profiles, to predict cancer risk and progression.
- She highlights the prognostic indicators in a CBC, such as chronically low white blood cells, elevated platelets, and hematocrit, to predict overall survival and cancer risk.

Personalized medicine approach for cancer treatment using frequent testing and tailored therapies.

- Dr. Winters emphasizes the importance of personalized medicine, using blood and tissue assays to understand your metabolic health and potential for treatment response.
- She highlights the limitations of the traditional medical approach, including reliance on initial tumor data and neglect of personal factors such as personality and intuition.
- She describes a holistic approach to healthcare that prioritizes frequent testing and personalized guidance.
- She highlights the need for more clinicians and patient advocates to meet growing demand for this approach.

Integrating alternative therapies into cancer care.

- Dr. Winters emphasizes the importance of integrating alternative therapies into standard of care oncology, citing the potential benefits of fractionated radiation, hyperbaric oxygen, and immune therapies.
- She advocates for a collaborative approach between integrative doctors and standard of care oncologists, highlighting the need for a bridge rather than a chasm between the two fields.
- She discusses the limitations of traditional cancer treatment approaches and the need for more personalized, adaptive care.
- She provides an example of how to determine when to adjust treatment based on a patient's individual needs.

Using mushrooms to boost immune system and treat cancer, with a focus on individualized approach based on patient's immune system and medical

- Dr. Winters discusses a nuanced approach to treating cancer, focusing on metabolic therapies.
- She highlights the importance of understanding cancer's root cause for effective treatment.
- Eric shares his experience with alternative cancer treatments, including supplements and hyperbaric oxygen therapy.
- Brian McCloskey mentions Paul Stamets work on mushrooms.
- Dr. Winters cites his book "Mycelium Running" and the idea of seeing the terrain as a microbe terrain.
- She emphasizes the importance of evaluating the individual's immune system before using mushrooms, especially for patients with autoimmunity or taking immune checkpoint inhibitors.

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Personalized medicine, using data and AI to create treatment plans for complex diseases.

- Brad Power discusses the complexity of cancer treatment options with a menu of exponentially growing possibilities.
- Dr. Winters describes her brain as a systems thinking brain that sees connections and patterns in a non-linear way.
- She describes a data platform under development that elucidates treatment patterns by analyzing vast amounts of information, including biology, tissue assays, and clinical decision making.
- She hopes to develop an AI-powered clinical decision-making tool that can help doctors make more informed decisions in real-time, with the goal of reducing prep time for patients from 6-7 hours to a half hour.

Immunotherapy combinations and complementary treatments for cancer patients.

- Dr. Winters highlights the limitations of current cancer treatments, including immunotherapy, and the need to assess a patient's immune system before treatment.
- She advises against rushing to try new treatments without first assessing a patient's terrain and immune system to avoid negative responses.
- She discusses potential combinations of treatments for cancer, including immune therapy, hyperthermia, and ketone bodies.
- Jeff Krolick discusses using integrative oncology to boost the immune system during treatment.

Integrative oncology and personalized cancer treatment.

- Dr. Winters discusses immunotherapy testing options with a focus on [Cyrex Labs](#).
- Integrative oncologists are essential for integrating alternative therapies with standard care protocols.

Using hydrogen water for cancer treatment with mixed opinions.

- Dr. Winters advises getting a personalized approach to cancer treatment based on your individual factors.
- Bapcha Murty discusses hydrogen water's benefits for cancer patients and the possibility of enriching water with hydrogen, despite physics limitations.
- Dr. Winters discusses a technology that can normalize low platelet counts in patients with high fibrinogen levels.

Confusing cancer treatment options with conflicting advice.

- Amit Gattani shares his frustration with the lack of consistency in integrative cancer treatments.
- He seeks help navigating complex treatment landscape.

Personalized cancer treatment approaches, including metabolic testing and lifestyle changes.

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- Dr. Winters emphasizes the importance of a personalized approach to prostate cancer treatment, considering your genetic markers, terrain, and lifestyle factors.
- Dr. Winters educates patients on their cancer treatment, empowering them to take control of their health.
- Patient compliance is high due to Dr. Winter’s approach of patient education, leading to better outcomes than standard care.

Cancer treatment and mindset, including personal story of resilience and healing.

- Eric Hall asks about the mind shift from standard of care to lifestyle management for cancer.
- Dr. Winters shares her personal journey with multiple chronic illnesses and trauma.
- She shares personal experience with cancer, trauma, and healing, emphasizing the importance of mindset and tools like EMDR (?) and psychedelics.
- She challenges conventional medical beliefs and practices, advocating for a more holistic approach to cancer treatment and recovery.

Integrative oncology approaches for personalized cancer treatment.

- Eric Hall gains confidence in his cancer journey through a holistic approach, including emotional trauma work.
- Dr. Winters discusses metabolomics and methylation in cancer treatment, highlighting the importance of addressing these factors to effectively manage patient outcomes.
- She also focuses on neuroendocrine disease, using chromogranin A as a marker of choice and monitoring endocrine hormone levels to ensure patients are stabilized.
- She emphasizes the importance of understanding the power of medical testing and its potential to change outcomes.
- She discusses the possibility of leveraging various tools, including standard of care, off-label drugs, nutraceuticals, supplements, herbs, and lifestyle modifications, to target specific health issues.
- She shares her expertise on integrative oncology and metabolic health, providing resources for further learning and collaboration.

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TRANSCRIPT

Brian McCloskey 0:03

Welcome to the Cancer Patient Lab.

We are excited about our special guest, Nasha Winters, who is very unique in terms of the types of speakers that we've had at the Cancer Patient Lab. She was diagnosed with ovarian cancer at the age of 19. She had an exceptional response, and she's been free and clear of cancer ever since. She's a nationally board certified naturopathic doctor, is also a fellow of the American Board of Naturopathic Oncology, and the executive director and co-founder of the Metabolic Terrain Institute of Health.

We're going to be approaching this from an integrative medicine perspective. We're going to be talking probably less about transcriptomics, genomics, proteomics, or functional testing. We're going to be talking about this from a complementary perspective. I'm interested in this for sure.

Remember that this is not medical advice, that we want you to consult your doctor.

Nasha Winters 1:37

I appreciate you starting out saying that I might be a little different than what you're accustomed to hearing. But I also want to say that I completely geek out in the proteomics space. I will touch a little bit on some testing today, because that's very near and dear to my heart and my methodology.

In September 2024, I will be 33 years out from my terminal diagnosis. You alluded that I've been cancer-free ever since – that's actually not true. I've been on a journey with this. In fact, probably the standard of care would say I'm not cancer-free. But I've been living well with this for all these years. It's had moments of ebbs and flows and expressions. It's not a linear process, as anybody here who's been on the journey can tell you. But as someone who's learned how to live well with cancer, thrive, in fact, I'm in better health now at 52, than I definitely was at 19. Definitely through my 20s, 30s, and 40s. Each decade, I kind of feel like Benjamin Button. We'll just go with that.

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Nasha Winters 3:32

This is really about the terrain, not just the tumor. If you've ever heard me present anywhere or hear me talk about this with my patients, you might have heard that I have a really big pet peeve. I hope that in my lifetime the concept of a “tumor board” changes. That really is a strange dynamic to me, because this is so much more than a tumor. It's a tumor that's arising from something much greater. Whatever we end up calling it in the future, I personally call it a “terrain board” when we get together in the environment that I work in to discuss what's going on with the patient. I want to know a lot more than just what's happening in their tumor. I want to know what that tumor landed in. So we're going to talk today about the terrain and the whole person in cancer care in general.

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The terrain tells the story. This is a methodology that I've created over my 32 years – as my patients say of going to “SYA University” (Save Your Ass University). I've several doctorates and I believe that at this time in my life, I've learned a lot about listening to myself and evaluating, looking under every rock possible. I'm a really huge, huge proponent of testing. I've now directly supported tens of thousands of patients and indirectly hundreds of thousands of patients through the way that I train clinicians and advocates around the globe.

It's through this methodology: “test, assess, address, don't guess”, that I find that my outcomes might differ from those of my colleagues, because we are following data, not dogma, and we're never guessing in this process. Terrain itself might seem like a little esoteric or woowoo concept. Some of you might have heard about Beauchamp, and that the constituents that were at the same time as Louis Pasteur, which was saying, “The terrain is where the issue is. It's not the germ attacking the body; it's the environment in which that germ lands that's the problem. As old and maybe antiquated as that thought is, we've actually had researchers over time, especially someone who I have studied her work for 30-some years, Dr. Mina Bissell, all about the extracellular matrix. This whole concept of the medium in which we are trying to grow a tumor or kill a tumor is just as integral as what it is that we're applying to the tumor. That's just something that we start with: let's learn the story of the patient.

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Over my career I've learned that there are 10 major drivers that allow the expression of the hallmarks of cancer, to give the tumor a reason to thrive and move about the body. For me, even the hallmarks of cancer themselves fall short, because they're not explaining why those hallmarks happened anyway, why they expressed. I look a little bit deeper. And there, it seems very maybe simplistic, but it seems to hold a lot of water. That pun intended as we're looking at a bucket of water representing our mitochondria.

The mitochondria include these 10 drivers, such as your epigenetics, the single nucleotide polymorphisms, in which you were born. So kind of your familial blueprint. We've even had studies showing upwards of 12 generations can impact proclivities and propensities today. So that's one thing we take a look at right off with all of our clients. We take a look at their single nucleotide polymorphisms. It also helps me understand their pharmacogenomics and what therapeutic interventions may work well or not, which dietary or lifestyle interventions may work well or not so well, and also shows me patterns and maybe what made them vulnerable to begin with to the cancering process.

Another “drop” we look at is obviously metabolic. What are we feeding those cells with? What are we putting into the mitochondria to make it do its job to create energy?

Number three is toxins. It's no longer a matter of if we're toxic. It's: how bad is it? And how does it interface with our own personal blueprint?

Then we look at things like the gut microbiome. Almost all of you have been at this long enough to know that this is a relatively new field, despite the fact that Hippocrates was saying all disease begins in the gut, and ayurvedic doctors, Chinese medicine doctors, homeopaths,

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naturopaths, osteopaths, and chiropractors. All along the way, a lot of the vitalistic modalities and therapies and therapists saw the gut and the microbiome being intimately connected to how we think, our immune system, all of all of that, and now that we've been able to put our research dollars behind this and look at it deeper, we're realizing that microbiome does in fact play a huge role in how we respond to therapies, how we prevent conditions, etc.

Then we look at the immune system. This group is probably really well aware that if you don't have a functioning immune system, cancer can take off and stay taking off. In the era of immune therapies today, that we might be overshooting that. We'll talk about that more in a moment.

Then we look at inflammation, the big driver, especially of proliferation of cancer cells and metastasis.

Then hypoxia circulation, angiogenesis patterns within this circulatory and perfusion environment.

Then we look at hormone modulation.

We look at stress, resilience, and circadian rhythm imbalance.

The big one that's often the most under-reviewed or under-evaluated “drop in the bucket” is our mental and emotional state. At the time of my diagnosis back in 1991, I was a pre-med biology and chemistry major. This diagnosis turned my world inside out and upside down. When I came back to school, I switched my major to biology and psychology and a self-constructed major of psycho-neuro immunology. The work of Dr. Robert Aider, Candace Pert, later on Bruce Lipton and others over time, really informed the way I took care of myself, as well as I later applied this to my patients.

These are the big drops in our mitochondrial bucket that make those hallmarks come to life and therefore our cancering process come to life in the future. This source here is really helpful. It shows you many of the day-to-day things we expose ourselves to, including over the counter drugs, and even things you think are pretty innocuous and their impact on our mitochondrial health, which posits that cancer starts at the mitochondrial metabolic level, not the genetic level. So that's one of the things I look at.

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ASSESSING METABOLIC HEALTH AND MITOCHONDRIAL FUNCTION

Terrain Ten Survey

- CBC with diff (with focus on NLR <2:1 and Platelet count, Mono/Eos/Baso, WBCs, Hg/Hct)
- CMP (serum calcium, electrolytes, organ health)
- "Trifecta": HS-CRP (<1 or <.1), LDH (<175 or <450), ESR (<10) (LDH Isoenzymes where appropriate)
- GGT (<15)
- D3 (25-OH (-80-100) and 1,25-OH (WNL))
- TSH (~.8-2.0), Total T4 (~7-9), Free T3 (>3), T3 Uptake (~30), Reverse T3 (<17)
- Homocysteine (~7)
- Uric Acid (<4)
- HbA1C (<5), Insulin (~3), IGF-1 (~100 higher in peds), c-peptide (<2)
- Urine, blood, breath ketones, GKI, CGM, macronutrient counters, nutritional and physical exam, HRV, pulse oximetry
- Ferritin (~35-75)
- OAT, buccal swab, TG (Tiglylglycine), 8-OHdG, AMA
- Single Nucleotide Polymorphisms (SNPs), blood and tissue assays, Functional Testing
- Body FAT composition <25% (particular focus on hip to waist ratio)
- Imaging
- Terrain Ten™ Questionnaire, signs and symptoms, personal/family med Hx

METABOLIC TERRAIN
MICROBIOME
drashka
METABOLIC TERRAIN
EMICS

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Brian mentioned testing. We talk about a lot of testing. We can get some pretty sophisticated tests today. It's amazing how much information we can get with some standard tests. Most of these you can get from a direct-to-consumer lab. You don't have to even have a physician to prescribe these types of tests. I've done a 90-minute course on a website called Oncology Nutrition Institute, just on the utility of a CBC. 90 minutes. Can you believe it that somebody can talk about a complete blood count, but most of you may or may not realize that on a CBC we have a lot of prognostic indicators. Chronically low white blood cells are prognostic of all cause mortality and of cancer progression and cancer itself. The neutrophil to lymphocyte ratio is also hugely prognostic of overall survival. Low hematocrit is prognostic. Elevated platelets are prognostic. These are things that we can look at way ahead of time and see smoldering embers in the basement long before the house is engulfed in flames.

I look at things like what my patients have coined the trifecta, which is a combination: C reactive protein, lactate dehydrogenase, and sedimentation rate collectively tell me far more than what even a tumor marker or some imaging shows. I can see things brewing long before they're big enough to capture our attention.

Looking at some of these others, these are obvious HPA axis endocrine function (the hypothalamic–pituitary–adrenal axis controls reactions to stress and regulates many body processes, including digestion, immune responses, mood and emotions, sexual activity, and energy storage and expenditure), immune function, metabolic function, coagulation issues, hypoxia, thick, sticky blood patterns. These are what we're looking at.

We can get even more myopic and look down using organic acids profiles, to look at microbiome function, mitochondrial health, toxic profiles, coinfection profiles. We can use buccal

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swabs (a simple swab of the inside of the cheek) like the MITOSWAB (requires two swabs of both the right and left cheeks) to look at complexes of the mitochondria and see where things are flowing or shutting down. We can even look at the damage to our mitochondria through the TG (Tiglylglycine, a urine test) or the 8-OHdG (a urine test for this biomarker of generalized, cellular oxidative stress and a risk factor for cancer), or the AMA, which is an anti-mitochondrial antibody.

These are relatively inexpensive tests, in which you can see the wealth and health of your mitochondria and know if you are on the right path in changing its expression.

Then as I mentioned before, single nucleotide polymorphisms, lots of other functional testing.

We get all of our patients through blood and tissue biopsies, both if possible. Either will make us happy to get a sense of the personality of the tumor itself. But what we're looking at here on this thing in front of you is basically the health and wealth of their terrain itself.

There's a hyperlink on this terrain 10 survey. This allows you or your patients to actually do a personal audit on everything you're putting in on and around you and what type of pressure you may be putting on your mitochondrial health to help you determine a different path than the one you might be on currently.

This has been developed over all of my years.

Our labs are based on the average of the population. At this point in time, we've shown that less than 6.8% of Americans are metabolically healthy. We don't want to be average, we want to be outliers. You want to be like me, a hyper responder, an outlier to the nth degree. I look at Glenn Sabin and other people in this room and thousands of others that I've had the privilege of working with. We don't want to be average, we want to absolutely leave the building.

I also want to highlight that I feel like while we're doing a lot of amazing stuff with testing of blood and tissue assays, we're also doing it incorrectly. Most doctors are unfortunately still using the initial tumor, which is completely irrelevant data at this point. Once you have had a treated tumor, you have the potential of changing its expression. If it has gone for more than six months or so, there is this possibility of a change in expression. Fresh tissue or fresh blood are really important to move things around, especially if someone is not responding to therapy. You want to get new information on them as much as possible.

Two major tests which are observation, hands on physical and nutritional examinations, deep observation, watching the patient's persona, their shen in Chinese medicine, how they look, how they present, what's their competence, what's their anxiety, as well as your intuition.

Intuition is also downplayed in medicine. I can't even tell you how many times just a hunch led me to something that led to a patient having a better outcome because it was just like, “Something's not right here in the data. Let's tap into other channels of wisdom.”

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Nasha Winters 15:36
The future of healthcare.

I alluded to that I am now part of a huge network after having a year-long waitlist in my clinical practice, and leaving practice. Then consulting, and then getting a year-long waitlist for that. Leaving that, moving into training doctors, and then getting a year-long waitlist of doing that, I realized this one-to-one was not working. I knew it was crushing me under the weight of it. And it was also crushing me to see how many people were literally dying in the waiting room.

So we started training clinicians globally and patient advocates, which are allied health professionals, folks who can't order imaging perhaps or prescribe, but they have some medical background: nurses, occupational therapists, nutritionists. To date, we have 265 clinicians and 362 advocates in 36 countries with two cohorts matriculating in a year. Each cohort tends to have more and more people.

To give you an example of who's looking for this type of care, in January alone, we had 35,000 people come to our directory looking for someone to help them using this approach. We can't meet those numbers, and we need more help to meet those numbers. But that is the future of healthcare. It is now.

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THE METABOLIC APPROACH TO CANCER

The Metabolic Approach to Cancer utilizes a significant variety of targeted interventions. The right tools, at the right dose, time and duration to keep the patient on the path to healing. Frequent testing enables regular re-assessment to guide adjustment.

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This metabolic approach is about using the right tool at the right dose, time, and duration to keep the patient on the path to healing. This use of frequent testing, enabling regular reassessment and guidance and adjustment to what's going on.

METABOLIC TERRAIN
INTEGRATIVE MEDICINE

Cancer as an EXAMPLE: Provide an unmatched range of treatments...

The future will combine cutting-edge integrative therapies and precision medicine with well-vetted traditional and naturopathic therapies that address the root cause of the disease and associated symptoms.

<p>WESTERN MEDICINE (Standard of Care)</p> <ul style="list-style-type: none"> → Surgery → Chemotherapy → Radiation Therapy → Immunotherapy → Hormone Therapy → Targeted Therapy → Stem Cell Therapy 	<p>INTEGRATIVE (as defined by Leading US Cancer Centers)</p> <ul style="list-style-type: none"> → Surgery → Chemotherapy → Radiation Therapy → Immunotherapy → Hormone Therapy → Targeted Therapy → Stem Cell Therapy → Yoga, Exercise → Meditation → Acupuncture → Nutrition → Dietary Supplements → Massage
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METABOLIC INTEGRATIVE APPROACH

- Properly Prepped Surgery
- Chemotherapy (Metronomic & Chronobiology focused)
- Fractionated Radiation Therapy
- Metronomic Immunotherapy
- Short Term Endocrine (Properly Matched) Therapy
- T-Cell Dendritic and Vaccine Tx
- Yoga, Qigong, Exercise or Movement Therapy
- Targeted Mindfulness Strategies
- Acupuncture and Moxibustion
- Therapeutic Personalized Diet
- Therapeutic Personalized Supplements & Herbs
- Somatic Therapies
- IV Therapies
- Restricted feeding windows / IF / FMD
- OLDU/ReDO
- Hyperthermia (perfusion, local regional, paired with or without ablative or radiation)
- Fever Induction Therapies with VAE, Coley's, IL2
- Ozone, HBOT, EBOO, UVBI Therapy
- Intratumoral/intravesicular txs
- PDT, SDT, photobiomodulation
- ...And More

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Just to reiterate what the current standard of care cancer treatment is, a lot of amazing things are happening. There's a lot happening in immunotherapies, in targeted therapies, stem cell

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therapies, dendritic vaccines, etc. There's quite a lot happening. We can get excited that we're making some movement and maybe walking, stepping a little further away from good old radiation and chemotherapy. The Society of Integrative Oncology has added to that. The standard of care in addition to what I call “the low hanging fruit.” I don't mean this in any disrespect.

I personally think that **everyone should be worrying about meditation, acupuncture, nutrition, dietary, massage, lifestyle modifications, yoga, exercise. We'd all be served with that, not just the cancer community.** I don't consider this alternative or integrative. I just think it's part of living on planet Earth today.

What I am interested in is what I currently do, what I currently train clinicians in, and what I hope the future of oncology makes as the standard of care is: how do we improve upon what standard of care and the Society of Integrative Oncology considers cancer care, which is properly evaluating and preparing a body for surgery, or properly evaluating for preparing a body for chemotherapy, and making sure we know exactly what we're targeting. We can use metronomic, less toxic, and chrono-biologic approaches, improving upon the standard of care, using fractionated radiation in partnership with things like hyperbaric oxygen or hyperthermia to change the perfusion of the healthy tissue, and hone and target the cancer cells even more readily.

Looking at some of these other therapeutic interventions. Using IV therapies to enhance standard of care. We should not have to be making a choice as patients as to whether we're getting standard of care or alternative or integrative. This should be the standard of care. We have enough information now to know that my job as an integrative doctor, I help standard of care oncologists do their jobs better. It's not an antagonistic process. There is not a chasm between us. There is a bridge and a partnership to be had.

Things like using fever induction therapies. We were laughed at using Coley's and mistletoe for all these years, and now we put the majority of our research dollars on these types of immune therapies.

We were laughed at at the idea that using something like hyperbaric oxygen could be negating the impact of standard of care, and yet we know that it sensitizes cancer cells to radiation therapy. Wouldn't it be amazing if our patients could hop into a hyperbaric chamber right before they go and have their radiation? My patients do, which is pretty incredible.

Therapies that have been approved for cancer care since the 1960s. Dynamic photobiomodulation. Many of you've probably heard of the Edison histotripsy (The U.S. Food and Drug Administration recently authorized a new technology called histotripsy to treat tumors in the liver, including neuroendocrine tumors. The noninvasive Edison® system developed by HistoSonics® uses sound waves to destroy liver tumors.), which is basically like histotripsy on your cancer cells. These are therapies that are absolutely approved. Yet, why aren't we using


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them? Why aren't they part of your approach because they're already approved for things like esophageal cancer, head and neck cancer, superficial cancers, and do beautifully.

When you take them more intratumorally and intravascularly you can even enhance standard of care and other therapies even further.

Compare/Contrast MTD with Adaptive Theory

MTD Approach	Adaptive Approach
<ul style="list-style-type: none">• Principle: based on delivering the highest possible dose of a cancer treatment (chemotherapy, radiation, etc.) that a patient can tolerate without experiencing unacceptable or life-threatening side effects.• Goal: to achieve the most significant reduction in tumor size or eradication by maximizing the intensity of treatment. The emphasis is on attacking the cancer cells aggressively.• Dosing: treatment is typically given in high doses over a short period. It often involves cycles of treatment with rest periods in between to allow the patient's body to recover from the toxic effects of the drugs.• Limitations: While the MTD approach can be effective in reducing tumor size, it often comes with significant side effects and toxicities. These side effects can impact the patient's quality of life and may lead to treatment delays or modifications.	<ul style="list-style-type: none">• Principle: is rooted in the understanding that cancer is a dynamic disease with diverse tumor cell populations. It recognizes that not all tumor cells are equally sensitive to treatment, and some may develop resistance over time.• Goal: The primary goal of Adaptive Therapy is not necessarily to eradicate all tumor cells but to control the tumor's growth and maintain a stable tumor burden. The focus is on achieving a balance between treatment and the patient's immune system, allowing the immune system to keep the tumor in check.• Dosing: involves a flexible dosing strategy. Treatment may start aggressively but can be adapted based on the tumor's response and the patient's overall health. It may involve intermittent treatment or lower doses, allowing periods of tumor growth that promote competition between tumor cells and selection for less aggressive, treatment-resistant phenotypes.• Benefits: By allowing a stable tumor burden, Adaptive Therapy aims to minimize the development of drug resistance and reduce the toxicities associated with aggressive treatments. It is also thought to be more aligned with the natural evolutionary dynamics of cancer cells.• Limitations: relatively new and less standardized compared to the MTD approach. As a result, there is still ongoing research to define its optimal application and to identify the patient populations that may benefit most from this approach.


 METABOLIC TERRAIN dr.nasha METABOLIC TERRAIN MICS

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I know a lot of you have heard Dr. Gatenby speak here about the adaptive approach. This morning I had a meeting with somebody who was previously with Moffitt Cancer Center. I still don't understand why we continue to beat the drum of the maximum tolerated dose approach. This is the approach of taking your patient to the brink of death and hoping there's enough to work with to get them to stay alive or to deal with survivorship when this is done. I really love this emerging theory, this adaptive approach, and it's how I have approached it for myself and my patients over decades. I love seeing that there's more and more research around this. This is also what the future of cancer care has to offer is moving more to this adaptive versus maximum tolerated approach.

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Anaerobic vs. Dysaerobic





	Type A - Anaerobic	Type D - Dysaerobic
Description	Related to glycolysis and anaerobic growth; often related to early stage (II) cancers with normal (H) (H2) ups/downs/responses and prior to a macrophage shift or over oxidation	Catabolic (often cachectic), more advanced stage (II/IV) cancers with major immune system changes; showing oxygen and oxidative Therapies would only create more free radicals that will overwhelm the body
Assessments	Dermatographism (scratch test): Quick to resolve Urine specific gravity: Low Urine & salivary pH: Nearly identical	Dermatographism (scratch test): Slow to resolve Urine specific gravity: High Urine & salivary pH: Wide variation
Labs	Optimal: Co, RDW, Ferritin, RT3, TNF alpha, CRP, LDH, ESR, uric acid	Elevated: Co, RDW, Ferritin, RT3, TNF alpha, CRP, LDH, ESR, uric acid
Therapies (examples)	Oxidative: <ul style="list-style-type: none"> • Thiocitrate IV up to 2g (esp. in multiple myeloma) • HDVC • Ozon • UVB • H₂O₂ • Artesunate • HIBT • Hyperthermia • Mediterranean-based diet • Avoid high-histamine foods like ferments & bone broths 	Non-oxidative: <ul style="list-style-type: none"> • Low sulfur diet • Curcumin oral/IV • PolyMVA • Quercetin • Vitamin E tocotrienols • High dose melatonin • Black cumin seed oil (also impacts stem cells) • Phosphatidylcholine • Diet high in fats, eggs, cream, cheese, tallow, enzymes, butter, ghee, marrow, ferments • High dose fish oil
Neutral Therapies	<ul style="list-style-type: none"> • Glutathione (if not cancering) • DCA • P6 (if not doing ferroptosis) • LDN • VAE if IBS is fine/Helleborus • Vitamins A, D, & K • Intermittent Fasting/IRE 	*NOTE: Anti-hypertensives, statins, Tylenol, NSAIDs, anti-inflammatories of any kind, calcium channel blockers, etc. modify results, so adjust if these are on board.



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I wanted to give you a brief example of how I help the doctors know when to push and when to pull back. It's not a protocol. I am really against protocol medicine. I really want to evaluate each individual personally and know exactly what it is that they need. What happens is a patient maybe goes to an integrated provider, and they get everything including the kitchen sink sent and thrown at it. That's just as damaging as just maximum tolerated dose chemotherapy that hasn't been given more thought. I really want to bring up the best practices of all. I want all of us to rise together on how we could do this better.

This is an example of how I can know when a patient is too oxidative to too overwhelmed in their system to know that you don't want to add more insult to injury, that's not the time. This is the time to back off and do more adaptive approaches versus maximum tolerated dose approaches. We help the patient to help the clinician determine whether or not they can push that patient that day or if they need to take a different approach.

Using labs, even using in-house scratch tests, urine test pH papers, just to understand how dysaerobic or anaerobic they are, then lets us know, if they are more in the anaerobic state, we can push hard, we can hit them harder with these oxidative therapies. But if they've moved into dysaerobic, which is unfortunately the vast majority of patients who come to somebody like me, or one of the colleagues that I train. We often push our patients right off the cliff because we tend to still be pushing very hard in the anaerobic category. But if we actually pull back and focus this morning, disruptive, these patients have unbelievably different outcomes than those patients who hit it hard with everything they've got. If a doctor is confused, and they aren't quite sure where the patient lives, the patient is bouncing wildly between the two. We go into the Switzerland zone, this neutral approach. This is just one case example I was thinking about to show you this diagram to help you understand that there's a nuanced way to go about this.

other therapies that impact metabolic health:

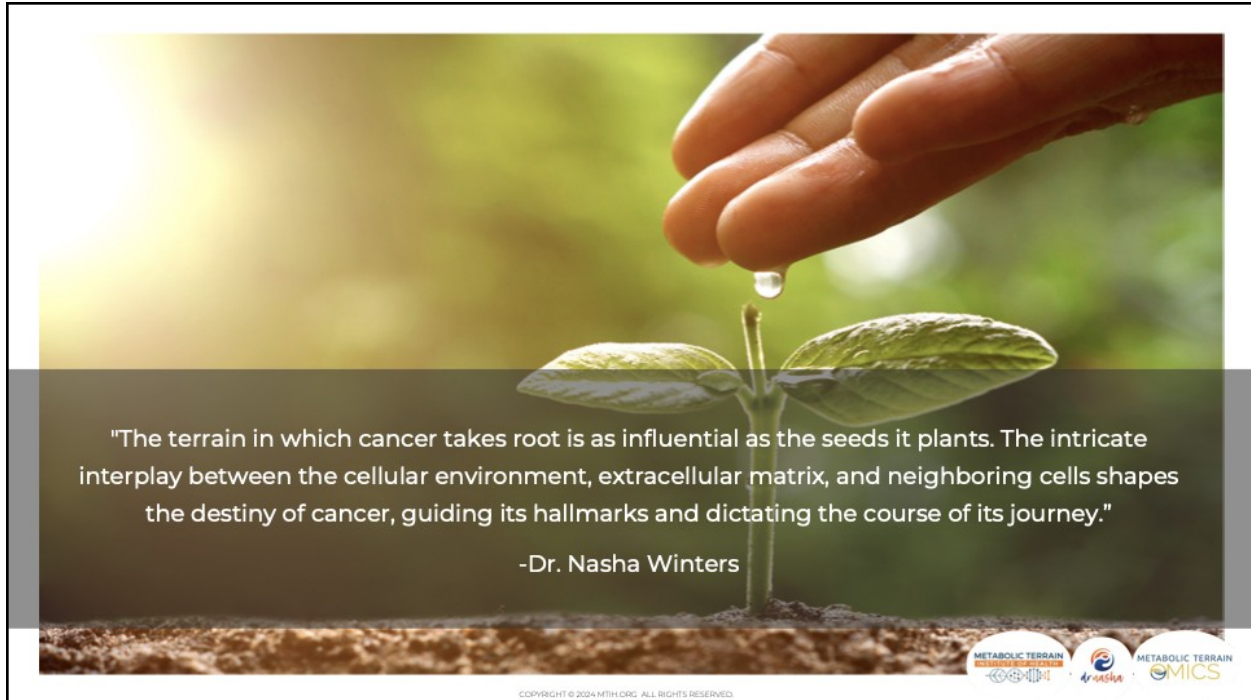
- Variety of intermittent fasting and restricted window eating and medical caloric restriction techniques
- Hyperbaric Oxygen Therapy
- Glutamine blocking (DON)
- OLDU (Metformin)
- Supplements (Berberine, DCA, oxaloacetate)
- Photo Dynamic Therapy
- High Heat Targeted Hyperthermia
- High Dose IV Vitamin C
- VAE
- Deuterium Depletion
-basically, anything that changes cell signaling and metabolic pathways



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Finally, some of the therapies that I think are very, very promising with regards to metabolic therapies that both enhance a lot of other integrative therapies as well as standard of care therapies: various forms of fasting, the therapeutic ketosis, restricted in-window eating, fasting, mimicking diets, the use of oxygen therapies, the use of glutamine blockades, off label drugs, metformin, certain supplements that also change the metabolic pathways. As I mentioned before, photodynamic, mistletoe, high dose vitamin C, hyperthermia, deuterium depletion, molecular hydrogen water, all of these have been shown to be very, very metabolic-centric in the way they treat the cancer.

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The terrain is where cancer takes root. We need to be mindful of that and help elucidate what that pattern was so that we don't continue to return to that again. And again, it's truly impossible to heal from the soil in which you got sick. My job is to help patients and clinicians understand what that was, so we know where we are, so we know where we need to go.

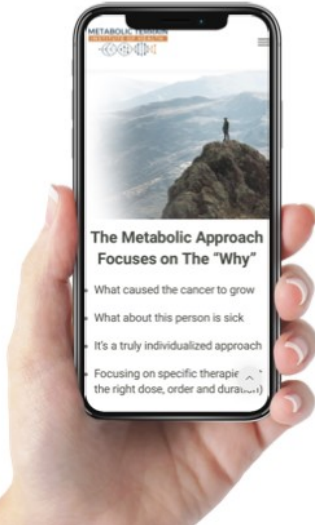


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Finally, a couple of the books I've written that go into a little deeper dive on this, as well as ways to learn more and ask questions.


FIND & FOLLOW US ON SOCIAL

Use the links below to get referrals to vetted and trained metabolic-centric practitioners and learn more.




The Metabolic Approach Focuses on The "Why"


- What caused the cancer to grow
- What about this person is sick
- It's a truly individualized approach
- Focusing on specific therapies the right dose, order and duration




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MASTERING
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PODCAST
JULY 23
with Dr. Nasha Winters

[metabolic matters podcast](http://metabolicmatterspodcast.com)



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Eric Hall 25:09

Nasha, I have not specifically studied your work and your content. Ironically, I've done probably about half of those things that you mentioned on the various slides through some of our own

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research, as well as going to a naturopath that follows many of those things: hyperbaric, mistletoe, IV supplements, high dose vitamin C, on and on. I feel that this has really been a big piece of my journey to one help my cancer progression results, as well as just helped me feel better kind of counteract the toxic effects of the conventional medicine treatments. That's a quick summary of my experience. I don't want to take up all the time here with this group, talking about mine, we can do that some other day. But I really appreciate this topic. Because I'm a huge believer in this. This is a large part of my journey.

Nasha Winters 26:21

Thank you, Eric.

Brian McCloskey 26:24

I was recently listening to Paul Stamets talk about the effects of Turkey Tail. It was at a restaurant at Arancha. The synergistic effects it has with helping to reduce inflammation, and improve your immune system. He just recently gave a talk about this at Georgetown University. I am curious to get your thoughts on it. I'm at UC San Diego primarily. There's a Dr. Sachs who is there, and I've just started looking him up yesterday. This is all fresh information. But I'm just very curious to get your thoughts on that particular cocktail of mushrooms, and what effect that could potentially have.

Nasha Winters 27:40

First of all, I love that you brought up Paul Stamets. I tell people if you want to understand how my mind works, read the book “Mycelium Running.” That's just the way I see it. It's hard to unsee that for me, seeing the terrain and that soil concept. I saw that Brad was asking about that synonymous tumor microenvironment extracellular matrix. There are a lot of different names for it. I just think of it as terrain.

Where the mushrooms are, it's very interesting. They have a very, very powerful role. I will tell you something that often surprises folks. I learned this both from my Chinese medicine training and later in my immunology training: mushrooms strongly promote TH1. That's great in the cancer place. But if you've got a patient who also has autoimmunity, or who is taking, say, an immune checkpoint inhibitor, they kind of get you in trouble.

Again, this is where we have to look at the N-of-1 of the individual. I evaluate where I can do testing, like through [Cyrex Labs](#), and do a full lymphocyte MAP test and know exactly what presentation someone's immune system is up to. I know if I can push that immune system a little bit towards the TH1 or not. I can look at things like just their medical history. Do they have a history of autoimmunity? Are they currently having an autoimmune flare? If they are, I'm not going to be one to reach towards those mushrooms. But if they don't have those issues, man Almighty, you can watch the natural killer cells go up, you can watch the TH1 shift happen. You can even watch the macrophage shift happen pretty quickly with that. It's not even a guessing game. You can see that happen by just watching what your monocytes and your eosinophils and your sedimentation rate are doing on your blood testing to know if they're helping you or pushing you off a cliff any further.

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Brad Power 29:43

We know that modeling disease is complicated. When we've had people like Dr. Gatenby on, and you try and model it, it makes your head explode, just trying to think about the complexity. Precision medicine is relatively simple. You get a genomic analysis, and there's a simple algorithm, you might call it “cookbook medicine”. For example, if you have an ALK positive biomarker, then we've got a drug for you. That's targeted therapies. But it's very mechanical. It's very simple. It's very reductionist.

As I look at what you're laying out, it blows my mind because the menu of treatment options just exploded exponentially. Then if you add combinations on top of that, it blows up even more. From our conversation last week with Bapcha, we got the view that it's not that hyperbaric oxygen is a panacea, and everybody should get hyperbaric oxygen. No. It's like if you're in this situation, and you're combining it with something else. So now the menu gets really complicated.

How do you make sense of it when you're working with a patient?

Maybe you can put it in an example? For example, I'm getting a cancer vaccine, and to decide if I should include something else to boost it, I reached out to Gabriele Gavazzi and Mark Taylor and said, “If you want to maximize the impact of your cancer vaccine, you're taking an immunotherapy, then what would you do?” They gave me a list of eight different things. Is that how you think about it?

How do you make sense of a very complex disease and treatment menu? How do you organize your thinking?

Nasha Winters 31:40

I'm really glad you connected with Mark. I'm assuming you're at the Valencia clinic?

Brad Power

No.

Nasha Winters

I've been at this for 30-some years for myself. My brain is a systems thinking brain. It doesn't see things very linearly. You know those pictures where you look at some squiggly lines, and if you cross your eyes or relax your eyes just enough, suddenly you see a dolphin jump out at you. That's my brain. It's not everybody's brain. I've been trying to teach that to others. Because I can look at the whole field, I can look at their labs, I can look at their family of origin story, I can look at their biography, as well as their biology, I can look at their tissue assays, their tumor markers, I can look at their SNPs (DNA), I can see it all at once. A picture reveals itself very clearly of what their patterns are, and what their treatment of choice should be. Not everybody can do that. I've been training in that.

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We've been building a data platform. Because taking in all those metrics, taking in that vast amount of information from test and assess, is what then elucidates the patterns, which then elucidates what is the right therapy at the right time, dose, duration and combination, because you can have all these amazing therapies, but if you're not doing them in the right order, or the right stacking, it's futile. Nothing good happens from it. This data platform we're building is creating the rules-based engine and the AI to help doctors with a clinical decision-making tool at their fingertips. So those who don't have a brain like mine can have a little bit of a training wheels to get them there quicker, and start to gather this information.

We are hopeful. We're looking for the next phase of our funding to get that next part of our AI developed. We've already been using this data platform in our environment in our like beta on all those clinicians I've talked about. We've already gotten to see it in real time. It takes about a six- to seven-hour prep for a patient down to a couple of hours. We hope by the time it gets to market, it'll take a prep for a patient down to about a half an hour. Then you can really know what works, when, why, what, and where to use.

To your point of that algorithmic recipe book, that is also happening. It's also no different than the experiment we've been on for the past 70 years, which is, “Here's a target. Here's a treatment. Here you go.” And when that fails, you move to the next target and treatment. We might be doing it with off-label drugs or with certain nutraceuticals or herbs, but we're still applying it in the same antiquated way. We have to look deeper.

So for instance, with radiation, if your insulin is high, radiation is not going to work well for you. Your cancer cells are desensitized. So you can use things like hyperbaric, or like being in a state of therapeutic ketosis to enhance the response to sensitize those cancer cells.

With regards to the immune drug you just described. It's funny. In 2018, MD Anderson put out a prognostic score questionnaire. Seven questions. That's all they asked.

1. Are you over the age of 52?
2. Is your ECOG (Eastern Cooperative Oncology Group) score (performance) more than zero?
3. Do you have an elevated LDH?
4. Do you have an elevated platelet?
5. Do you have an elevated neutrophil?
6. Do you have a low lymphocyte?
7. Do you have anything going on with your liver?

If you answered three or more on those having issues, you are not a good candidate for an immunotherapy drug, because that already shows you're in a Th1 dominant (inflamed) state. It already shows that there may be an immune system completely off grid. You need to have somewhat of an intact immune system to respond to an immunotherapy.

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Before you even consider jumping on an immunotherapy, I would really look to see how you score on that MD Anderson questionnaire. I would look to see what your autoimmune history is. I would look to see in German medicine, we'd look at your MDASI-score (MD Anderson Symptom Inventory, a tool for measuring patient-reported symptom severity and symptom interference in German cancer patients), which are very similar questions to what the MD Anderson questionnaire looks at. If you have either a heightened immune reaction or a completely off the grid immune reaction, you'll have very little response, if any, or even a really bad or negative response to these. That doesn't mean that they're off the grid for you forever, but you'd want to work to get your terrain ready to meet that treatment.

I see this a lot where people rush off to get their T cell dendritic vaccine, or go off and get their Coley's toxin, or go off and get their checkpoint inhibitor, or go off and get their injection of interleukin2 into their tumor, or whatever. When it blows up in their face, everyone's confused and surprised when we could have seen it coming a mile away.

Those are examples that the technologies we hope are coming to help make this automated for most clinicians, and to teach them to be critical thinkers again, and to do it in a scalable, repeatable way.

Did that answer your question?

Brad Power 36:37

Yes. Thank you very much.

The one wrinkle would be combinations. We've done work with CureMatch. You may know them. They're advocates for combinations. Knowing how these things interact is yet another complicating factor.

Nasha Winters 36:58

There are so many things that you just come back to the basics of their mechanism of action and knowing what's going to enhance or potentiate. For me, there are certain stacks that are kind of a given all the time.

If I'm going to use any immunotherapy, I'm always going to want to partner it with hyperthermia. Those are just examples. That just is a potentiator. If I'm going to use radiation, I'm going to always potentiate it with ketone bodies, whether exogenous or endogenous, and hyperbaric oxygen, and high dose melatonin, for instance. Those are just some examples that come to mind of where I know, they're the low hanging fruit stacks. The nuances come from the information, the data that the patient's body gives us.

Brad Power 37:36

I'll be going to the sauna and the ocean in Maine now that I know.

Chad Magnussen 37:54

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Many of us are highly treated. You talked about the neutrophil to lymphocyte ratio, which may be off, or we might have some red or white cells that are low, or hemoglobin or something.

Are there some complementary treatments when we're on a break that can maybe help us out to get those labs looking better to keep us qualified?

Nasha Winters 38:25

Absolutely. If it's specific for you, I'm happy to answer that offline. Make sure to reach out to me at Nasha@MTIH.org.

It depends on if it's just chronically low white blood cells. There's a really beautiful, sustainably ethically harvested shark liver oil. Alpha glycerol works just as well, if not better than the Nupagen and Neulasta, without firing up the oxidative stress to the marrow into the system. That's one example. There's a ton of others with regards like low chronically low anemias and whatnot, secondary to treatment, hyperbaric oxygen. You'd be shocked. Not a high pressure timeframe, but a little bit will potentiate and support.

There are a lot of tools in the toolbox for that. Chinese herbs. There's a ton of support for certain nutraceuticals. For platelets that are chronically low, things like papaya leaf extract. It shocks people how well that and tahini can work on bringing the platelets up very quickly. We're talking days or weeks, not months. There are a lot of great tools. I'm glad you brought that question up.

Many are safe to even do during treatment, not just having to wait when you're on a pause.

Jeff Krolick 39:48

I work with an integrative oncologist, an MD, and many of these things have been periodically part of my treatment

In the course of treatment, I was getting periodic, very comprehensive immune system blood work, including an NK cell activity test through Quest Diagnostics, and Quest stopped offering those. That was a very good tool for me because I could see not just ratios of different lymphocytes. But I could also see, based on their standard test, which was a kind of a lyse of some particular bacteria and account how my immune system was doing in terms of activity.

I'm wondering if you could say a little bit about that, and if you know where that testing can happen.

The only thing I've been able to find is one or two hospitals that are not covered by insurance. It used to be when it was at Quest.

Nasha Winters 41:16

First of all, it makes me sad, but you're right: they keep chipping away at the things that we used to be able to get coverage with insurance.

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It's not cheap, but it's effective, especially if someone's dealing with some immune issues or looking at immunotherapies and are trying to monitor how their immune system is doing. It's worth it to me the \$200 or \$220 it costs to go through [Cyrex Labs](#). [Dr. Aristo Vojdani](#) is a world-renowned immunologist, as well. He introduced me just a couple of years ago to what's called his lymphocyte mapping test. This will show, Jeff, not just your natural killer cells. It's going to show interleukins, TNF alpha, dendritic T cells, relationships of Th1 and Th2. It is incredible. It shows you 13 different patterns of immune expression. You might have one, or you might have half a dozen of those patterns expressing, and you can really watch it and monitor it.

Once I find a patient's pattern, then I can usually go back to [ARUP](#) (Associated Regional and University Pathologists, an independent, not-for-profit laboratory) and repeat with just some of the specifics because you can one off order a few of these things still and have those covered. So if I see a particular pattern, then I can then go back and we can follow and monitor with insurance reimbursement for some of these other tests. So that one might be one to go take a look at.

Carla Vass 42:50

Gaining practical access to some of these therapies, what I've found, and maybe others have had similar experiences, it's difficult to integrate tightly some of the more alternative or other supportive therapies with standard of care protocols. But it sounds like a good place to start is finding some of these integrative oncologists

Nasha Winters 43:32

I feel like the majority of my training now is to doctors who have been integrative oncology specialists for some time. I don't mean to be harsh. If any of you are this type of oncologist or integrative oncologist or integrative practitioner: protocols don't work. They might work for a hot second, but you have to be trained in how to know what works. Amit was just asking about, “When do you know when something's working or not working, especially when there's so many things thrown at it?” You don't. That's why you take this method. That's why you do very focused testing and evaluation and you repeat it.

We look at our patients' labs every single month. Then we regroup, plus we check in periodically within that. If something starts to change before that next monthly lab is set, we're going to test sooner than that. This is how we adjust course and then know what therapies are working when and where.

You want to work with someone who's doing an enormous amount of evaluation on you before they start to say, “You have breast cancer. We're going to do this. You have this, you're going to do this.” As soon as someone says that, that's a red flag for me, and I run, or I encourage patients to run, because you could put 10 patients with breast cancer in the room. They could have the same demographic, maybe they are 30-year-old triple negative breast cancer patients, you evaluate their data, and they all have cancer for very different reasons. They'll even have very different tumor personalities, as well as terrain situations that lead to that diagnosis.

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We need to have a very focused approach to this to have success, and it's tedious, but it's required to save your life, especially for someone who's got a later stage cancer. The earlier stage cancers – protocol it, if you want to go that route, and that feels comfortable on a stage 1 or 2. But, man, once you move into being highly overly treated, non-responsive to therapies, or really coming in and de novo with an aggressive cancer, you have to be a lot more thoughtful and precise about the path you take forward from the get go. Don't guess in that space. You have very precious limited time and resources to get it right.

Bapcha Murty 45:57

Your last sentence was about hydrogen water. Can you talk a little bit more about it, please?

Nasha Winters 46:22

I used to think this was bunk. I'll just be really honest. I'm usually that person who's like, “Let me see the data. And let me experience it.” I'm usually putting it through my own body first, to see the outcomes. Why I started really getting into hydrogen water these last two years is: I started getting really tired of my patients with cancer who had either had the COVID infection or the COVID injection, dealing with extreme coagulopathies that were not responsive to the typical therapies I saw them respond to historically. I used to be able to take a fibrinogen activity level from 450 to down below 300 (Fibrinogen is one of 13 coagulation factors responsible for normal blood clotting. A fibrinogen value of more than 700 mg/dL may mean you're in danger of forming clots that could harm your heart or brain.) in a matter of weeks with lumbar kinase or serrapeptase or natto or something. They stopped responding. I used to use heparin if everything else failed, or other pharmaceutical blood thinners. Nothing was responding.

I heard a story about a colleague who had long haul COVID, who was dealing with really, really bad clotting issues, very elevated platelets, very elevated [D-dimer](#), very elevated fibrinogen activity, and he started nebulizing molecular hydrogen. I thought, “Let's just see what his data shows.” In two weeks, he dropped his fibrinogen activity more than 50% from well over 900 to below 350. He dropped his D-dimer into normal range, and he dropped his platelets from over 600 down into the high 300s in two weeks on this. I thought, “Okay. Now I have got to get curious.”

I dug a little bit deeper, and started to realize its impact. It is a very well-documented metabolic therapy. It is directly impacting the mitochondria. It is directly lowering inflammation, specifically interleukin six, interleukin eight. We can see that. We started testing. It definitively drops fibrinogen activity, platelets, and D-dimer. Interestingly enough, in patients with low platelet counts with high fibrinogen, it does not lower their platelets further. In fact, it normalizes it, which was an accidental finding. I've no idea the mechanism of that, but we've been watching that. It's something that we've been bringing in to our patients with really tenacious fibrinogen pathways. That's what I know.

I have two recordings coming out on my podcast, and one on a Cancer Summit coming out with two experts in this field.

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Bapcha, if you get in touch with me, I'll give you their names. You can follow their research to get more of the details because I'm relatively new to this.

Bapcha Murty 48:50

My basic question goes back to physics. It is very hard to enrich water with hydrogen. You can dissolve only so much. The rest of it is bound to oxygen as H₂O. I'm assuming you're talking about free hydrogen in water?

Nasha Winters 49:13

Both of these gentlemen have technologies that have managed to overcome that barrier.

Bapcha Murty 49:19

You cannot overcome physics.

Nasha Winters 49:23

I would love for you to talk to these guys. Because I'm not a physicist. I'm also just intrigued at what I was seeing because I was like you: I thought it was bunk, but when I saw the results I was seeing, I was like, “Okay. I have to look a little deeper.” So we started having several patients bring that on. I'm with you. I'm learning. I'm asking those hard questions too.

Bapcha Murty 49:43

Fair enough. Were they done with any controls?

Nasha Winters 49:49

With the patients I used it on, they were just using it because they had exhausted everything else. This is one of the things I'm discussing with one of the companies with one of their technologies to do some actual research. So that's our next step.

Bapcha Murty 50:08

How do they claim to enrich water with hydrogen?

Nasha Winters 50:11

Again, I'm not a physicist. It's a particular technology that they go into in the podcast, I'll send you their links and their names because this is really not my area of expertise.

Amit Gattani 50:56

I'm a highly treated prostate cancer patient. I've tried a lot of integrative therapies, from juicing, intermittent fasting, Mediterranean diets, ayurvedic treatments. I work with Mark Taylor. I also worked with [Dr. Donald Abrams at the UCSF Osher Center](#).

I cannot tell that any of those things meaningfully helped me manage my disease. It probably has helped a little bit in very incremental and small steps so that I could tolerate some of the other treatments. But the more I kept looking into this, for every therapy that gets suggested, there are eight counterarguments against those. I've just not found that there's a stable

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operating point from any of these things that I can rely on. If I'm consistent with this, this is something that is going to help me. I went through two sets of immunotherapy treatments, and consulted Dr. Sumit Subudhi at MD Anderson for immunotherapy as well. Again, the counter-indicators he gave me against immunotherapy in my case, and especially a lot of the supplements I came up with.

I did Dr. Onik's treatment on immunotherapy. They gave me a three-page protocol called the “Dr. Blaylock protocol”. It was totally counter to everything else that I was doing while I was being given previously by Dr. Abrams and other doctors. I found it almost impossible to figure out what is going to work or what is not going to work me.

I haven't done the terrain mapping. I get CBC and all those things done almost weekly. Monthly testing is not an issue. But nothing has really helped me unravel the mysteries of this. What has happened is I typically followed something for four to six months, and then some counter-indicator has come up, or some side effects have popped up. We don't know whether the side effect is because of what. And then my oncology team says, “Let's just stop this and see where we go.”

I wanted to get your response to the fact that this is a very, very confusing landscape that nobody seems to be able to unpack in a meaningful manner that you can trust and work with, at least in my case.

Nasha Winters 54:32

You talked about some of the testing, but I'm curious if you've had all the testing done that I showed you on that screen of our onboarding tests, and then we will repeat those tests quarterly as needed. But also what happens when I have a patient who has been heavily treated, and they've stopped responding as robustly as we'd like, we'll take a pause from whatever treatment you're on for two weeks. Then we'll go back in, and if you've got something biopsiable, we'll go back and get a fresh tissue biopsy, or if not a biopsy, we'll go and get a fresh blood biopsy and see if there are some new targets that have arisen, because that will happen, especially in a heavily pretreated environment. I'm just curious if you've done that approach.

The other side is: prostate cancer itself has a different metabolic expression than other cancer types. I find that there's a lot of confusion and miscommunication as to how to eat, what to eat, when to eat with this. Looking at your single nucleotide polymorphisms and at your terrain labs help. You are probably someone who needs to be both carbohydrate restricting, as well as eating, being careful with the types of fats you take on and how often you take those on. Choline can be an issue in this process.

Someone had asked me in the chat about ferroptosis. This is a cancer type, especially if you have SNPs in or elevated on your labs, interleukin six, and a chronically elevated ferritin level, ferroptosis can be one of the most profound ways that I've had patients re-sensitized to whatever standard of care therapies they were on, dealing with late stage, recalcitrant prostate cancer. That would be worth looking into.

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You named a few people that are really highly regarded in the field of integrative oncology. But I also find that none of them quite test to the level, frankly, of my standards, and we can often find clues as to what they might be missing with you.

I can't underscore enough, in men in general, and this may be very personal, that bowl where you hold all of your stuff, your emotions, your stressors, all of these pieces. Making sure you're attending to that part of your terrain as well. Because it can perpetuate this even further.

I just plant those seeds to hopefully know that you've not likely exhausted all of your options. This is hopefully encouraging you to work with someone who can look under the hood with you a little bit further.

Amit Gattani 57:15

I haven't done the long list of testing that you've shared with me, but at the end of the day, what is the goal that you're trying to get your patients to? What is achievable? Let's not talk about extreme responders. We know there are exceptional responders to everything. But on average, what is it that you are able to get your patients to with these therapies?

Nasha Winters 57:50

My colleagues for years when I was in private practice would say to me, “Why do you have such good compliance? Why do your patients do everything you tell them to do and stick around?” It's because I educate the crap out of them. I empower my patients, so they understand exactly why we're ordering whatever we're ordering and why we're offering or giving whatever treatment we're giving. They become just as savvy and sophisticated in their own process than their doctors in most cases.

When I first started consulting, I was just consulting with patients. I realized, and I'm not trying to be disrespectful, it's just the reality of the time back in 2015, that patients were smarter than the doctors. So then I had to go back to the drawing board and start training doctors, because the patients were bypassing them quickly. So now we train both simultaneously. We train advocates, patients, and clinicians at the same time, so that everybody can be at the table together.

When you ask about that question, we're very careful not to talk about this in public, but this is why we're building this data platform. And this is why we're building this network and collecting these stories. So we can publish.

At the end of the day, when you take all type stage 4 cancers, and you put them into a bucket, at the end of five years, the average is 12% of those people are still here. Okay, so for every tumor type, we're not breaking this down into types. On average, about 12% are still here. At the five year mark in my patient population, over 60% are still here. We're doing something different. We're doing something right. We're very careful about how we talk about that. But we are very careful about testing each person and applying all of this very individually.

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We aren't for everybody. This is asking a lot of the patient and their caregivers and their loved ones. This is a commitment to a lot more than just, "Come in, have a treatment, and walk out the door." This is a lifestyle. This is a state of mind. We require them to read "The Metabolic Approach to Cancer" first, and be like, "Does this resonate with you?" If it does, "Great. Let's have the next conversation." If it doesn't, then that's best for you. There are plenty of people out there doing protocols, and when those fail then they usually come back to us, which sucks because by then it's really late.

I wish that we got everybody started on understanding their terrain, evaluating their own terrain, taking their own terrain 10, taking their own health in their hands, and becoming an empowered, educated advocate for themselves, so that they're more inclined to do all the things.

When a patient is in chronic stress or duress, no treatment, no matter how good it is, will work right or work for long. We have to even change the field in which those treatments are being received.

These are the esoteric things that standard care isn't designed to help. But this is exactly where the world I work in shines. We bring this all together to bring the patient into the center of the equation.

Eric Hall 1:01:09

You mentioned that according to the standard of care, you are probably not considered "cancer free". I want to talk more about that mind shift between that standard of care approach of eliminating all cancer to be "cancer free" versus what I think I hear you talking about, which is more like a lifestyle change, like you've said. I've done a lot of that myself, but like maintenance or a way to manage it at a certain level.

I was hoping you could just expand more on that mind shift part of it because it's very different if you've only been in that standard of care world. I have not, but I know a lot of the other audience here has. That's a fundamental concept when we talk about all this stuff that you've presented today.

Nasha Winters 1:02:23

That's a big one. I appreciate that you brought that back up because it underscores why I'm still here. A little more context of my own diagnosis and what put me on this journey is: up until I was diagnosed, I had had a lot of health issues. I was literally born with health issues. By the time I was three years old, I was on multiple drugs for IBS (irritable bowel syndrome), like baby Prilosec, back in the early 1970s, which was available at that time. I was put on birth control pills at nine because I started menstruating, which was not normal nor common. Unfortunately, more common now, but still not normal. But in 1979, that was a really big concern, until I was diagnosed with endometriosis, when I was 11, then polycystic ovarian syndrome. From the multiple antibiotics and whatnot I was put on I was diagnosed with juvenile rheumatoid arthritis, later Hashimoto's thyroiditis, later full on IBS. All of these pieces just kept stacking. Six months

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prior to me being diagnosed, I was in and out of the ER, and they just thought it was more of my symptoms being exacerbated. They just thought it was more of the same. I was a zebra back in 1991. You weren't looking for a 19-year-old with terminal ovarian cancer. It just wasn't what we were looking for.

I also will tell you this part of my story, which is not often for public consumption, but I have shared it. I tried taking my life on multiple occasions. I came from extreme trauma, extreme abuse, extreme poverty, no way out, no light at the end of the tunnel. There was nothing, so it was easier to leave. In fact, the first moment I had the diagnosis, I was like, “Well, that's kind of a martyred way to go. Great.”

But then something else happened in me. It was sort of like, “Here's an opportunity.” When I was told there was no way, I didn't expect to fight it, I didn't expect to cure it. Instead, I expected to just understand it. That's how my mind shifted to understanding it. From things like having a bowel blockage and accidentally not eating for two and a half months because I couldn't that probably saved my life now that we can look back on the impact of like [Moreschi's work from 1909 on fasting and tumor debulking](#). That's what opened up my ureters to start working again. That's what helped me start to resolve the ascites (a condition in which fluid collects in spaces within your abdomen) that I had to continuously drain. That's what took the bowel blockage away. So these accidental “kicking the can down the road” things are what allowed me to get more and more curious as to these other pieces.

But what I really found for me was the mindset because I was not afraid to die because I had tried to take my own life. I learned pretty quickly that it was actually probably one of my secret powers.

When I got into the private practice of helping patients, the biggest hurdle we had to overcome was their fear of death. From my perspective, patients who are so focused on their fear of dying, literally forget how to live. My job is to help them start to remember how to live. When that mind shift happens, you will see a lot of metrics change with that. If I can't bring it to them, we now have lots of tools that we bring to them. Everything from EMDR (Eye Movement Desensitization and Reprocessing, a psychotherapy treatment that is designed to alleviate the distress associated with traumatic memories.), and [Liberate](#), which is a new platform that's out there. It's a precision emotional healing tool. A lot of other things, even psychedelics.

I don't speak much on that, but psychedelics were probably integral to my trauma release in my early, early years of overcoming this, back way before [Michael Pollan](#) (How to Change Your Mind – What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence) made it okay to come out of the closet. Way before these studies, I had 11 patients who went through the Harvard trials for ovarian cancer, a terminal diagnosis. All but one of them are still here, and that was in 2010 and 2011. I see these amazing responders every day, every single day.

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It's so weird to me to go to an ASCO conference and hear them say how many of you have stage 4 cancer patients that have made it and be in a room where virtually no hand goes up. I'm like, "I don't even want to raise my hand for fear that I'm going to be attacked." That's happened. Because I see that every single day. I have a different belief system. And as such, I come to the table with my patients with a different belief system.

We just got a little esoteric and wonky here, but this is just as integral as why I also use the data. I believe both of them are just as powerful and important to the conversation, not one over the other.

Eric Hall 1:06:49

If anything, it just gives me more confidence. Because that's where I am. I'm clearly not as educated about all of that stuff as you. But I have switched my mindset to have a belief that I'm going to change my lifestyle. Like within the first couple of weeks, I went full on vegan, for example. My list of things that I've done at various times is more than 50 things long. I guess it isn't all evidence-based. Yet I still do monthly labs with my naturopath, like you were just explaining to Amit. I changed treatments or "protocols" then based on what those show, but there's also some belief from me that, "Yes. This will help me." For example, I have done a ton of trauma work myself, emotional trauma work, and I consider that a huge part of my journey, where a lot of people would never consider that part of a cancer journey other than maybe keeping you from committing suicide. But not from a healing aspect.

Thank you for that answer. I think that that is a huge part of your approach underneath. I appreciate you giving me that extra confidence myself.

Brian McCloskey 1:08:29

We started out this conversation early on, where I said, "We're going to talk less about proteomics and genomics and transcriptomics." I'm going to bring us full circle to that. Some of our patients have had quite a bit of diagnostic testing. It's also worth noting that we have a relationship with a company called mProbe that will do proteomics for free for our patients. Given the whole labyrinth of various testing out there, that can include genomic, transcriptomics, and proteomics, but also functional testing.

What is most useful or what is most complimentary to your approach? What do you pay attention to most, if anything?

Nasha Winters 1:09:22

I look at the metabolomics. I like to see what pathways are likely driving the train. 70% of cancers today we're finding are driven by PIK3CA (phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha, mutations in the PIK3CA gene may cause the PI3K enzyme to become overactive, which may cause cancer cells to grow.) That's a big one. If you don't address the metabolomics, if you don't address that, you're never going to get this patient out of trouble. Some of these particular methylation mutations, ATM, Lynch, GATA3, MLH1, MSH6,

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BRCAs, all of those. They're not set in stone, but they potentiate things because they're very difficult if there are methylation issues here.

Testing whether my patient is hyper- or hypo-methylating? I can do deeper evaluation to know if I'm going to need to upregulate or downregulate or just modulate that process. Some examples of certain SNPs are BRAF. These are extremely aggressive and extremely recurrent cancers. Yet we have really amazing tools to target them.

Brian McCloskey 1:10:32

Also neuroendocrine disease. We have some patients that are dealing with that.

Nasha Winters 1:10:46

I've got at least six patients, all over 15 or 20 years, with pancreatic neuroendocrine disease that are cruising along, still there. What we do is we dig deep. We look at chromograninA as our marker of choice. We're always watching to make sure their calcium levels are stabilized. We're looking at their thyroid, their prolactin, their insulin levels. We're looking at all the endocrine hormones. We're making sure that those are constantly adjusted accordingly. These are patients that are very, very susceptible to metabolic changes, to stressors, to too much carbohydrate. These are also patients that are very susceptible to toxins, endocrine disruptors, so our patients also get worked up – I didn't have this on the list – they get a full tox panel. They get worked up for glyphosate in particular, especially if they're blood cancers. Those are things that we definitely make sure that we're continuing to clean out, clean up the house.

They can live a long healthy life and die of something entirely different. That's always my goal. They are tenacious, though, and you have to stay on it. I want people to understand it becomes a lifestyle, and it's not an event, and that there may be no endpoint, but it doesn't take away your quality of life. I don't think anybody would ever look at my life and think, because even though I've dealt with the ovarian piece, it's kind of morphed into a lot of these neuroendocrine because of my collection of other autoimmune patterns and other things. So I'm constantly tending to that field. And I do that with my patients as well.

I love these types of tests that can give us the information to know where we can leverage our tools. Where can we bring in these tools to change these outcomes? It's easy to see the changes, both in how the patient feels, but also what the labs show, or even what their tissue assay says. We might repeat a tissue or a blood biopsy six months later for someone who was KRAS when they were working with us. And after high dose IV vitamin C, and maybe a course of ferroptosis, suddenly they aren't expressing KRAS anymore. Those are the types of things. We can put enough pressure in that system to even change those genomics pretty quickly.

There's so much hope for the future. All these tests we do, the proteomics and all these other tests, it's like a two-year-old with a Maserati. They do not understand how powerful the tool is. They do not know how to understand and translate what that data means. And they don't even understand how many tools can target those from standard of care, to off-label drugs to

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nutraceuticals to supplements to herbs to dietary and lifestyle modifications. It's incredible what it opens up for us in our toolbox.

Brian McCloskey 1:13:31

I don't know if you've spoken to BostonGene. But if you're not connected to them, I'm happy to make an introduction. There's a real opportunity as you talk about your database. They are a very data-driven company. They approach sequencing in a different way.

How do our patients get a hold of you?

I think you've shared some amazing information.

Nasha Winters 1:14:06

The best place to follow what we're up to, from the integrative oncology hospital and research institute we're building on a 1200 acre regenerative organic farm, which we didn't even get to talk about, to the education platform, to the data platform, to the lab we just opened in Arizona for a product development lab, and a mitochondrial respiration lab and metabolomics lab that we're opening up for research purposes. There are a lot of things we're up to.

There are also places where I'm presenting all over the world. Books I've written. Interviews I've had. I've got a podcast. You might be interested in listening to “Metabolic Matters” for some really interesting guests that go deeper dive into these.

Follow best@mtih.org which stands for Metabolic Terrain Institute of Health.org.

If somebody has some direct follow-up questions for themselves, I'm happy to put you on the right path. You can email me at Nasha@mtih.org.

Really lovely to be with all of you. Lots of great commentary, conversations, and direct private messages as well in the chat. So really, really grateful for your time.

Brian McCloskey 1:15:16

We can't thank you enough Nasha.

A reminder to our community. We are a donation-based organization. If you found this useful, we would certainly appreciate a donation. You can go to our website at cancerpatientlab.org and hit the donate button, and we would appreciate that.

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Chat Discussion

Glenn Sabin:

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How many fellows through your program are medoncs - and out of this group, any sense as to how many are also open to prescribing / integrating off-label (and in combos) anticancer agents, informed by multiple datasets across a range of testing - e.g.: molecular, multi-omics, functional, immune profiling, etc? To be clear, how many are prescribing repurposed rx in addition to FDA-approved anticancer agents?

Nasha Winters:

We have over 30 med/rad oncs now in/through our program.

Glenn Sabin:

Out of this group, any sense as to how many are also open to prescribing / integrating off-label (and in combos) anticancer agents, informed by multiple datasets across a range of testing - e.g.: molecular, multi-omics, functional, immune profiling, etc? To be clear, how many are prescribing repurposed rx in addition to FDA-approved anticancer agents?

Nasha Winters:

Creating an Nof1 Physicians network of academics and community medoncs 'open' to prescribing off-label. I will send an email to arrange a connection.

Eric Hall:

I did the oxygen (I used EWOT) every day before my radiation session along with being in ketosis and used high dose melatonin during this period. I also have used all of these at various times during my journey.

I bought an EWOT system for about \$1500 and used this daily in my hotel room before my radiation treatments. We had a presenter introduce me to EWOT in a CPL call in 2023.

Vanessa Hugo:

The papaya leaf extract works!

Carla Vass:

This is super helpful, thank you! How can patients practically gain access to some of these therapies? In the example of HBOT prior to radiation therapy, how does one tactically put this into practice?

Nasha Winters:

Check out our directory on mtih.org.

Amit Gattani:

Nasha, with so many therapies put in motion at the same time on a patient, how do you what is working and what is not working?

Nasha Winters:

We test, assess and never guess. We test monthly on our patients.

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Glenn Sabin:

Any publishing happening? Even case rpts and series?

Nasha Winters:

@Glenn Sabin yes! Trying to gather and publish testimonials

Roger Royse:

Any view on ferroptosis?

Nasha Winters:

Very powerful therapy but less common need for it than you think and often not applied appropriately. We work with it often.

Vanessa Hugo:

For brain cancer in particular, how do you mitigate the risk of seizure during fasting (ie seizure triggered by hypoglycemia and/or low electrolytes, etc)?

Nasha Winters:

Ketone bodies are our seizure control.

Dennis Watson:

Nasha. I have a really unique functional assay that spun out of MIT, that we are providing at no cost. I'd love to share more data and details. Can I get your contact info through Brad?

Nasha Winters:

Yes please! nasha@mtih.org