DR. RALPH MOSS INTERVIEW

Medical Writer, Author, and Filmmaker

By Chris Wark

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Hey everybody. It's Chris. I'm back with another interview for you today with Dr. Ralph Moss. Dr. Ralph Moss is a legendary figure and a personal hero of mine. This is such a thrill and an honor to interview him. I'll tell you a little bit about him. He's written 10 books and made 3 documentaries on cancer. Some of his books include, *Questioning Chemotherapy* written in '95, I believe. A book called *The Cancer Industry*, Cancer Therapies, *Antioxidants Against Cancer*, and many more. He also writes The Moss Reports. They are 200+ page detailed reports on the best treatment options for 22 different types of cancer. You can get them at CancerDecisions.com. Dr. Moss was a founding advisor to the NIH Office of Alternative Medicine. His writings have appeared in The Lancet journal, The National Cancer Institute's Journal of Clinical Oncology, JAMA, and Integrative Cancer Therapies, for which he's a corresponding editor, and many more.

He has peer-reviewed articles in multiple journals. He's the recipient of numerous achievement awards, and his research on cancer has taken him around the world investigating conventional and alternative cancer treatments. He's been doing this for somewhere around 40 years. He's also the subject of Eric Merola's documentary film, Second Opinion. We'll talk about that. Dr. Moss has a new film out called, *Immunotherapy: The Battle Within* and a new book called Cancer Incorporated. You can guess what that's about. I'm looking forward to reading that. An incredible bio. That's literally just the tip of the bio iceberg. But I'm just going to stop there and say Dr. Moss, thanks so much for your time and for doing this interview.

Dr. Moss It's my pleasure.

Chris: I feel like the crossroads in your life was back at Sloan Kettering. You were the Assistant Director of Public Affairs, and you made a choice to expose a cover-up of the Laetrile trials, which had some positive results. But you were told to falsify reports, and you refused. I'd love to hear that story and start there. I feel like that was really what set you on a different course. Right?

Dr. Moss: Right. Well, for sure. I had begun my career as a science writer at Memorial Sloan Kettering Cancer Center in New York in 1974. And one of my jobs was to talk to the public about non-conventional cancer treatments. Naturally, the subject of Laetrile or Amygdalin came up often. And we had a prepared statement saying, basically, that it didn't work. People should just use the conventional treatments, which were even more limited then than they are today. Shortly after I started working there, I went up to the Walker Laboratory, which at that time was an animal research facility in Rye, New York, to interview a man named Kanematsu Sugiura. He was, at that time, the oldest member of Sloan Kettering, like a full Professor Emeritus. He was charming. He was insightful.

It was very, very interesting and exciting to talk to him. I didn't think that he was like still working. And then he said he was coming into work six days a week, every day practically. And I said, "Well, what are you working on?" And he said, "I'm working on Amygdalin." And because of his Japanese accent, and because I wasn't all that familiar with it, I said, "Well, you mean Laetrile?" He said, "Yes." I said, "Well, what's there to work on, if it's worthless?" And he just shook his head, and he took down a book of his laboratory notes to show me the actual laboratory notes of his experiments. And it changed my life. That moment changed my life because it worked quite well in the animal systems he was working on; over the course of time on 3 different animals systems.

And in all of them, there were appreciable effects of the Laetrile. But the blow-away result was that in a particular kind of mouse with a spontaneous type of breast cancer, the rate of metastasis secondary spread to the lungs was about 80% to 90% in the control animals. And it was about 10% to 20% in the Laetrile treated animals. As you know, Chris, there really are very few treatments, even to this day, for metastatic breast cancer. So this was kind of mind-boggling, and no one had ever seen a result like that before now. Just to be very clear, these were not human clinical trials. These were animal studies, and you cannot extrapolate automatically from an animal study to the human situation. When I went back to my boss, the head of our Public Affairs department was very interested in this.

And he sort of assigned me to stay in touch with Dr. Sugiura because I have now established a personal connection to find out what was going on. And over the next 3 years, one after another, the big bosses, everybody, basically, above my boss, and certainly above me, chimed in with negative statements about the effectiveness of Laetrile and about Dr. Sugiura's experiments. And it culminated in 1976. One of the vice-presidents of Sloan Kettering said, "We have found Laetrile negative in all the animal systems we have tested." This was completely, diametrically opposite of the truth. They had actually found it positive in all the animal systems tested, including these blow-away results in terms of stopping the spread of cancer. It just got crazy, absolutely crazy.

And I, personally, had a big decision to make. I loved my job. I probably would have stayed there my whole career if it hadn't been for this, but I also could not be part of a concerted effort to lie to the American public and the world population about the results of our studies. That seemed to me to be completely antithetical to what science was all about. Whatever the motives were for lying, there's just no excuse for that. You have to just tell the truth, and let the chips fall where they may. You can interpret those facts however you like, but you don't lie about that. And finally, it culminated. There was a press conference that Sloan Kettering held about Laetrile, and I was the person who wrote the negative report about Laetrile. That was my job.

Meanwhile, I was sort of in the background, kind of plotting to expose what they were doing. And I did. To make a long story short, in November of 1977, I called my own press conference at the New York Hilton hotel and said all these things that I'm now saying now. And I was fired on the next business day. As they put it in the New York Times, " for failing to carry out his most basic job responsibilities." So I realized then, that sometimes your job responsibility is to lie for your employer. I'm not willing to do that.

And I wanted to say, my son, Ben, who now works with me at Moss Reports, he was 10-years-old. And the night before the press conference, I was like, vacillating, "Should I go? Should I not?" And Ben, 10-years-old said to me, "You can't go working for them and against them forever."

Pretty smart ten-year-old. It was obvious, in a way, but also, I needed that sort of wake-up call. So I went. I said what I had to say. I was fired. And that kind of launched me into my career, the second part of my career, which was as an independent evaluator. I had to be independent because I couldn't get a job. I'd basically burned my bridges. What could I do? I couldn't get another job, at that time, writing or in public relations. It was poison to refuse to lie on behalf of your boss and have your own opinions. It's the opposite.

Chris: How old were you at that time?

Dr. Moss: I was 30 when I was hired at Sloan. So I was 34 when I finally held the press conference. I was kind of a young 34 because I'd been in academia my almost my whole life. So I hadn't had a ton of life experience. I mean, I had two kids, and I was married. I'm still married to the same person, 55 years. But I hadn't had all the knocks of life that many other people have had.

Chris: Well, that was incredibly courageous, I just have to say. You basically committed career suicide with that press conference, being a whistle blower. And you must have been, I imagine, pretty worried about what the future would hold, right?

Dr. Moss: Yeah. I was worried, but you'd have to know my wife and my family, my parents, who are now gone. But I had a lot of emotional support from my family, especially from my wife. We had only managed, in our 13 years together, to save $2,000. That was our sum total of our assets in the world. And my wife went out the next week and got a job that paid, if anything, more than what I had been earning at Sloan Kettering. Which was another saga. But this is why I make her breakfast every morning for the last 40 years. Not only did she save our family, but she gave me the support and the leisure to be able, then, through the lean years, to do what I set out to do.

Chris: So what did you do next?

Dr. Moss: The day I was fired, I ran into the man who, basically, lied the most, Chester Stock. He'd basically fired me, and I confronted him. And he was basically, "Good riddance. Bad. Garbage." That kind of attitude. And not knowing what to say, how to come back at him, I said, "Well, you haven't heard the last of me. I'm going to write a book about this." That was the first time that the thought had occurred to me,. But what else could a writer do? You write a book.

You can't physically change institutions unless you're Bill Gates or something. And I wasn't. So that was where the germ of the idea was to write this up in a way that would be understandable to the general public. So that's what I did for the next few years. I couldn't find a publisher. I had a very good agent, but she couldn't find a publisher. And

finally, we had an offer for me to write a different book on a different subject from one of the companies that turned down *The Cancer Industry*. So I started doing that, and I told my agent, "Just pull the other book. Pull the cancer book."

She went to a party that weekend. And there was a very wealthy corporation at the party. She told them the story. Within a week, I had a book contract with Grove Press, which was a company that I greatly admired and would've loved at any time to have been involved with. So that's how *The Cancer Industry* came out. And then that was featured on 60 minutes. And I was able, then, to start to get other contracts on books.

Chris: That was the original book you intended to write first?

Dr. Moss: It was. Absolutely. That was the book I wanted to write. In 1979 and '80, I was writing two books at the same time. One was the bedroom book, and the other one was the kitchen table book. My mornings where *The Cancer Industry*, and then I have lunch. And then I'd go and write the other book that I was writing for money, basically, in the kitchen. And this was pre-computer days. It was all done by a little typewriter and so forth. But that was how I got into the book writing business. And I had a pretty good run of books until I really wanted to only do meaningful things. I was being pressured into doing projects that I wasn't really interested in. My next agent had the idea that I should write a biography of some famous person. But there aren't that many famous people in science, when you think about it.

So I approached Dr. Spock who wrote the baby book. I approached Oliver Sacks. And then I approached Jonas Salk. That was really interesting. Jonas Salk agreed to see me. He had an apartment in Manhattan. I was living in New York at that time. And I went up there. It was on Fifth Avenue, and we had a real heart to heart conversation. And he said, "Well, why do you want to write my biography?" I didn't BS him. I told him the truth. I mean, it was a saleable thing, and I thought that I could do a very good job. I had already written the biography of Albert Szent-Györgyi who had won the Nobel prize but was sort of an unknown and remains a bit of an unknown.

: So I wanted to do the Salk biography. This led to a very profound conversation for me. At the end of this conversation, he basically said, "Fire your agent." This agent was a top-notch agent. He was James Baldwin's agent. He was really, a top person. But the logic was inescapable that I was on, not the wrong path... That might've been the right path for another person, but for me, my whole career was about truth-telling and about investigating injustices that manifest through the medical field. That was a Friday, and Monday, I fired my agent. So this was a big turning point for me. And then, the desktop revolution came along. My wife had become an incredibly skilled typographer, typesetter.

And so we jumped in with both legs to the desktop publishing thing, and we published *Cancer Therapy*, which was a rundown on 102, mostly alternative, cancer treatments. And that was under our own imprint we controlled, which was Equinox Press. And we did really well with that. It was in all the Barnes and Nobles. It was everywhere. It did really well, and we controlled it. Owned it and everything. In the meantime, I had taken a day job with a medical legal publisher. That popularity kind of enabled me to quit the

day job, which I had had for 3 years to launch the Moss Reports. Originally, it wasn't the Moss Reports. It was Equinox Press, which we still control, still own.

The people who read *Cancer Therapy*... There were no Chris Warks out there. There was no information. There was no internet. It was the early 90s. So we were just getting a constant stream of calls of people saying, "I want to talk to him because this guy, obviously, knows more than anybody I can find about what I need to know. Alternative treatment." So I started doing consultations. And these were in-person consultations. I was so naive that for like $79, I took a guy out on the train to New Jersey to go visit some chiropractor. I later found out he was under surveillance by like the state health authorities. He would sit there in the consultation, smoking cigarettes, and I was trying to give him a consultation about alternative cancer treatments.

It was just crazy. But as part of that consultation, I would write a report for the person on their type of cancer. And I needless to say, this became quite time consuming because I would have to write a separate report for each person. It dawned on me, finally, to write their report to, "Stay writ." So this was the origin of the Moss Reports. And at one time, we were over a hundred different types of cancer. I would write these reports on very rare situations, even if we only sold one copy of that over the years. I felt I was sort of building this up. In time, though, it wasn't the writing of them that was so difficult. It was the maintenance, the updating. So that had to stop. So now we're down to about, I think, 38 reports, and we're in the midst of the update on those.

Chris: Let's talk about what's in the reports. They're very detailed, obviously, a couple hundred pages each. But I think this is maybe one of the most valuable things that a patient can do for themselves is to get a Moss Report. It's like a crash course in your type of cancer, the treatments available, and how well they work or don't work.

Dr. Moss: Right. So the reports are in different sections, which are written in slightly different ways. So there is the conventional section, which is sort of my critique of the conventional treatment of each of the 38 most common kinds of cancer. That's a special thing, which I use different research tools for. Then there's a section on which so-called alternative or complimentary treatments are shown scientifically to affect your kind of cancer. But the largest section of the report is more generic. Some people don't understand this. They think, "Oh, I don't want to read about somebody else's cancer. I only want to read about my particular kind of cancer."

But as I explain in the report, it isn't just that I'm padding the report by bringing in other kinds of cancer. There are very important aspects of cancer that are general to most, many, or all cancers. I'll give you two examples, things that we might want to explore more fully. One of them is the metabolism of cancer. So we know cancers light up on PET scans because they inject the patient with a radioactive form of sugar. And the sugar goes to where the cancer is, is held for an hour or two where the cancer is, and that can be scanned for the radioactivity. And that's how they determine many things about the cancer, where it's located, how aggressive it is, and how well the treatment is working. This is a great test. Although, it does involve some radioactivity to it.

: So that tells us that 87% or 90% of cancers are dependent on glucose for their growth. Glucose is the form of that sugar takes in the blood, that carbohydrates take in the blood. It fuels all our cells. It's the main fuel for all our cells, but cancers are incredibly avid for glucose. And I have a certain calculation that I can make to see how avid. I had a phone consultation client the other day, and I calculated that her cancer was 10 times more avid for glucose than her normal tissue was. So this means the cancer's got to get that glucose from somewhere. And very often, in my opinion, that somewhere is the diet of the person. Also, the fact that more than half the adult population in the U.S. doesn't have a normal relationship to carbohydrates or to glucose. 52% by the last count.

Chris: This is due to due to being overweight or obese.

Dr. Moss: And it comes over, you know, comes along with overweight and obesity of doctor, doctor, the late dr. Robert Atkins coined the phrase diabesity meaning he rarely ever saw anybody with type two diabetes who wasn't overweight or obese and vice versa. It's certainly rare to find somebody who is obese or heavily overweight, who also doesn't have the beginnings of diabetes type two diabetes. So this is a great interest because not only is there a higher rate of cancer among obese or people with type two diabetes, but the root of those two conditions is, is definitely related. It's all related to

Blood glucose to the blood glucose is obvious in the case of diabetes, but it's also present in the case of cancer because of the fact that we know that at least 90% of cancers are avid for glucose. And so that's a, that's a very telling fact. Now there are differences from one kind of cancer to another in terms of their dependence on glucose. So it isn't, it isn't uniform like every cancer, but that is a commonality among many, most, or all cancer. So it's legitimate to talk about such things as carbohydrate restriction, as avoiding sugar, as ketogenic diet, as intermittent fasting, extending the nightly fast, time-restricted eating, as well as certain drugs that impact the blood sugar like Metformin. It's like looking at cancer as a unitary disease rather than a hundred different diseases that don't have all that much to do with each other.

So there's a good rationale for stepping back from your particular kind of cancer and saying, "What is cancer generally? How does it behave generally? What are its' weak points? What are the characteristics of cancer that might be exploited in order to then attack it or even heal it at the molecular level?" So that's Another example is immunotherapy. So your immune system, under proper conditions, can be mobilized against cancer. And you can impact your immune system by taking certain foods, by activities that you engage in, like exercise for instance, by stress reduction, by medicinal mushrooms. You have an impact. And doctors can also impact your immune system with certain drugs that are available to them that are very, very powerful. Maybe too powerful. Which cancers are amenable to the immune system? My feeling is that the immune system goes everywhere, except maybe the retina of the eye. Your white blood cells are circulating in your body.

So that being the case, theoretically, immunotherapy could really address every kind of cancer. In practice, yes, some cancers are more susceptible to immune therapy than others. But there are really good doctors and scientists out there who are working to

extend the success of immune therapy from just melanoma, lung cancer, and a few other cancers, to colon cancer, to other cancers and figuring out what makes for a successful immune treatment. And this is part of what I talk about in my film, *Immunotherapy: The Battle Within*. The battle within being the battle within the person, between the cancer and the immune system., But also it's the battle within oncology. It's the battle between chemotherapy and immunotherapy. There's an interrelationship between the cancer cells and the immune cells. They're not only fighting, but it's sort of like the Taliban. They're fighting and negotiating at the same time.

There's a strange relationship there of adversaries who also can subvert each other. It's very, very interesting. The whole topic of cancer immunology is amazing, but the upshot of it is that in melanoma, today, they can really get very, very strong responses, tantamount to cures in 60% of people with stage IV cancer. Now, you go through hell to get there, but this is a pretty amazing statement to be able to make. In our film, James P. Alison, who won the Nobel Prize two years ago, when I interviewed him, basically agrees with me that the job, now, is to extend that kind of success out of just the realm of melanoma and to some degree lung cancer, into all the other cancers as well. I think there's other aspects of this. The dose needs to be lowered, and they need to also add in stimulants to the immune system. But only a holistic doctor is going to be able to do that. There's progress being made in that direction. Anyway, I digressed a little bit. But my main point was that in the Moss Reports, we have the section on your kind of cancer. We also have a section on cancer.

Chris: Yeah. Just whatever the patient needs to know about cancer, that type of information. So I want to ask you a couple of things. Immunotherapy field is definitely fascinating. I've been paying close attention to it and see study results when published. There's some encouraging things happening for sure. As you said, they've made the most progress with melanoma and some progress with lung cancer. But right now, it's still only helping a small percentage of patients for a very small percentage of cancers. Right?

Dr. Moss: Yes.

Chris: For those folks who are exploring this option and thinking about immunotherapy, obviously, your film would be a good thing to watch. It's free on YouTube, correct?

Dr. Moss: Correct. And also, if they just go to MossReports.com, it's right up at the top. There's a link to watch.

Chris: Yeah. So good to educate yourself, but immunotherapy can have pretty significant side effects and can be debilitating and difficult. Some patients have to drop out because it's just too toxic for them, for reasons that are not well understood. Correct?

Dr. Moss: Right. I'm extremely fortunate to have some amazing European colleagues, immunologists and immunotherapists. My apprenticeship, if you will, at Sloan Kettering was with three of the most famous immunologists, immunotherapists of that era. Especially Lloyd Old, who was, I think, was the sort of behind the scenes genius, who

basically made this all happen. Without Lloyd Old and his close colleague, Helen Coley Nauts, who was not a physician, they really created the modern field of cancer immunotherapy. Or at least they took it out of the realm of just academia and made it into a practical thing. And I say that because James Alison, who won the William B. Coley award, now is the head of the organization that Helen Coley Nauts founded to promote her father's work. And Lloyd Old was the first and only other scientific director of that organization. So modern immunotherapy comes out of the context of alternative medicine. It's very important to understand this.

Chris: Yeah. And you mentioned Coley who was basically the godfather of immunotherapy, right? Dr. William Coley. Would you like to talk to about what he was doing in the early 1900s?

Dr. Moss: I love to talk about what he was doing. This has been an obsession of mine for 40 odd years. We tell this story very fully in the film. And I talk about it also in my book, *Cancer Incorporated*. William B. Coley observed a patient, a German refugee, who had a spontaneous remission of a stage IV cancer that had originated in his neck. He had had four operations on this. It was not cured and considered incurable. And the man came down with an infection that was pretty common 130 years ago called erysipelas. It's a streptococcus, a strep infection of the skin. It's really awesome to see. I've seen preserved samples of the skin of people with erysipelas. You can't believe that such a thing could happen. It means red skin, and the skin just turns burning red. So it's no fun to go through. And people died of it before penicillin.

Chris: Was this a whole body infection?

Dr. Moss: It could be, or it could just be like on your face or something. What happened to this man though, was that after he developed and then survived the erysipelas, he had a spontaneous, that's to say, not medically induced, cure of his cancer. And Coley, who had an intense desire to find a cure, especially for sarcoma, was a young man, young doctor, at Memorial Sloan Kettering. When looking into medical records to see if anybody had ever survived this particular kind of cancer, he found this guy's name. And he went through the tenements of New York to locate this guy. He had a picture. And he finally found him 7 years later, and the guy was still completely cured. Brought him back to the hospital. They took pictures of him.

They examined him. There was no sign of cancer. So this gave Coley the idea. He didn't know why. It didn't even connect this to the immune system, but he just had the idea to give other people erysipelas and see what happens. Maybe we can cure them. And that was too dangerous to do because you could kill the person with the erysipelas. In fact, nurses started to come down with erysipelas, and that was a no go. But then he had the great idea to kill the erysipelas bacteria and add another bacteria that was known to augment the toxicity or the activity of the first bacteria. And they did this. They put this together at Cornell University for him, and it was called Coley's Toxins, or Coley's Fluid. The name Coley's Toxins is terrible name, marketing wise, because it's not really toxic.

It causes a fever and chills. That's the treatment. The fever and the chills actually turn out to be the treatment. If you don't develop the fever, you're probably not going to get

any benefit from that treatment. And they started to treat people. They treated over a thousand people, and it was still being given almost at the time that I got to Sloan Kettering. It was basically banned in 1963. I arrived in 1974. So I still knew people who knew Coley. So Dr. Sugiura that I mentioned before, he knew Coley. Other people knew Coley. I've spoken to patients who were treated by Coley. This was a real thing. Coley could cure advanced stage IV cancers if the people took the Coley's Toxins, got a fever from it, and did this consistently. And this was the whole trick to it.

And what makes it such a difficult treatment. They have to do this every day or every other day for a minimum of four months. So very few people are really set up or willing to do that. You can still get Coley's Toxins in Mexico and somewhat in Germany. But you know, I could see Lloyd Old and even Helen Coley Nauts we're looking for an easier treatment that would be more doable. But there's nothing, in my opinion, other than the obvious fact with melanoma and immune checkpoint inhibitors, I don't think there's ever been a more powerful immune therapy than the Coley's Toxins.

Chris: Yes, the Coley's therapy is still available. People still are doing this under the guidance of alternative clinics and integrative clinics. And my dear friend Bailey O'Brien is a stage IV melanoma survivor. And Coley's was a very important part of her therapy. She went down to a clinic and was doing basically Gerson Therapy with Coley's. And she's alive and thriving and doing great. A lot of folks in my community know her, and I've interviewed her.

Dr. Moss: Yes, that's great. And it's a real thing. Helen Coley Nauts did an incredible thing with her life, and it hurts me that this is not universally known, appreciated, and understood. And I'll show it to you. Hold on a second. Chris, this is her life work. What you're looking at here is 18 monographs that she wrote. I got this copy from her, with her own typed in a little addenda to it. These are not anecdotes. Okay. These are verified cases. Giant cell tumors of the bone. 66 cases and four cases of concurrent... Plus she threw in an extra 4 that she typed in over here when she sent me the copy. And every single case treated between 1893 and basically, the 1970s is tabulated here with the initials of the patient, who treated them, the age, the sex, the site, the extent, the duration, the prior therapy, the subsequent therapy, and the survival. As you go through these, it's mind boggling,

Chris: Well, who continued this therapy after Dr. Coley died? That was just a a hundred year span you just mentioned.

Dr. Moss: Yes. So his son, Brad took over Coley's practice and position. Coley was head of the bone service, the bone cancer treatment department. And Bradley kept it going until the 60s. Meanwhile, Helen, his daughter, from the 40s up until about the year 2000 was doing this incredible research. Some of these things are almost unavailable. You look in the world catalog of books, and there is such a thing, there's, there's only a few copies left of these monographs. They prove that the treatment worked, and it will come a point where I could foresee the possibility that there will no longer be any knowledge of the Coley's Toxins. Which was one of the reasons I was so eager to make the film, *Immunotherapy: The Battle Within*.

Chris: You mentioned Helen. What was she working on in the 70s and early 80s that was a departure from Coley's Toxins method?

Dr. Moss: She founded the Cancer Research Institute, and all you have to do is go look at the website of the Cancer Research Institute, and you'll see what happened. They basically became promoters of the field of cancer immunotherapy in general, but where the economy wanted to take this knowledge was into the sphere of extreme profitability. I'm being nice here.

Chris: You have to be nice on my show.

Dr. Moss: It's just a habit. I can't help it. If you have a treatment that doesn't cost much and isn't patented, you're not going to get very far in a society and an economy that's geared around super profits. And this is another one of my main points why I wrote *The Cancer Industry* back in 1980 and why 40 years later, I've revisited this in *Cancer Incorporated.* It's just seems so obvious to me, and probably to you, that the drug companies are in this for the money. They call the shots. I had a researcher tell me that she could basically make up an entire course of treatment for somebody for about $2,000. In mass production, it would probably only cost a thousand. You'd need a PhD person to supervise the lab.

And you need some well-trained techs to do the actual production, but these are germs in the public domain. There's nothing special about them, really. It's just what causes strep throat, basically. Where we've gone, as a society, in terms of our cancer treatments, on average, the drug company expects to discharge about $150,000 per person per drug. Leonard Saltz, at Memorial Sloan Kettering, has estimated that the cost for treating melanoma with modern day drug specialty immunotherapy would be about $1 million. And that, he very sardonically notes. that's part's, not labor. Meaning that doesn't even count the doctor's time for administering these things. Things are so completely out of control that an inexpensive treatment just doesn't have a chance. And we're relegated, we who believe in natural therapies.

And I believe in any treatment. I'm not so much an advocate of natural therapies as I am an advocate that any treatment should be based on its scientific and medical potential, rather than drawing a line and saying, "No, there are two criteria for determining whether something gets accepted. A: its' scientific criteria. And B: its' economic impact on the company or who wants to develop that treatment." That, to me, is the original sin of the whole medical system. They don't tell the patient. "This has actually been filtered through the filter of capitalism. It has to conform to the profit demands of industry." And they have rationales for why they need so much money. I could knock those things down in two seconds. I could explain if to people want me to.

I want to pivot a little bit here to the topic of agents and items that kill cancer STEM cells. This is very important. Very, very important. Cancer STEM cells, at the base of the crypt, is a normal STEM cell. If those normal STEM cells become malignant for whatever reason, then you're almost certainly dealing with a cancer STEM cell. Cancer STEM cell is highly resistant to standard treatment. So there are big drug companies involved in

clinical trials of agents to try to get FDA approval to kill cancer STEM cells. So I was looking at a paper that contained a list of these agents.

Chris: I want to just establish something for folks that don't understand why this matters. Many cancer drugs and treatments will shrink a tumor, but they don't kill the cancer STEM cells, which are only less than 10% of a tumor. Sometimes, they're only 1% of a tumor. So it looks like, "Whoa, this treatment totally shrunk my tumor by 90%. Wow, it's working. Let's go to Chili's and celebrate happy hour!" And the reality is, "No, those STEM cells are now more aggressive. They're off, and they're resistant. And they're going to come raging back because the treatment not only didn't kill them but made them more aggressive. So the whole point is, you've got to kill the STEM cells.

Dr. Moss: Right? And drug companies have been racking their collective brains trying to come up with drugs that kills cancer STEM cells. So here's the funny thing. I was looking at this list yesterday of candidate drugs, substances to kill cancer STEM cells. At the top of the list was a drug called Nexavar. Most of these other drugs are just in development. Nexavar is actually an approved drug for certain kinds of cancer. Now it's a clinical trial specifically to kill cancer STEM cells. At the bottom of the list was curcumin, the yellow, natural coloring agent in turmeric. So the cost of good quality curcumin, in what probably would be an effective amount would be about 60 cents a day. Literally. To get in that realm, or if you took it for a year, $250. Look this up.

You can look this up at drugs.com or any other website. The cost of Nexavar, currently, for the, is over $20,000 a month. If you took that for a year, you're looking at $250,000 as opposed to $250. That's sort of the gulf between the generic, natural, non-toxic stuff that you could buy at a health food store or a food co-op versus something that you only can get through the machinery of big pharma pumping this out. And then, of course, with all the buzz around, "Now we found something to kill cancer STEM cells! Blah, blah, blah." But they've known for 10 years that curcumin and other natural agents kill cancer STEM cells. There are probably about 20 different items that kill cancer STEM cells that are known in the laboratory and somewhat also in the clinic. And of those, 10 of them are foods, food items, and food derivatives.

Chris: Like what? What else?

Dr. Moss: Resveratrol from red grape skins. Genistein from soy beans. Sulforaphane from broccoli and broccoli sprouts. I mentioned turmeric, curcumin from turmeric, and EGCG from green tea.

Chris: Thymoquinone from black seed?

Dr. Moss: Yeah. But those are the big five, in terms of the quantity of research. About 10,000 journal articles that cover those big five. And then there are other minor ones. They're not as well researched. For instance, cinnamon, cardamom, pepper. And by the way, it's interesting that those are the traditional things in golden milk, in the Ayurvedic formula. And also, you could put those in smoothies. There's a lot you can do with those, whether you take them as foods or you take them to supplement. But aside from the

holistically oriented doctors who are not that common in the cancer field. Who among your viewers was ever told this by a conventional oncologist? There they are either completely unaware...

Chris: Zero. The number is zero.

Dr. Moss: Absolutely. And then, there were a few heroes, oncologists or doctors, mainly treating cancer, who are aware of this. But if you're an oncologist, and you push too hard on this, you get a reputation as a weirdo. You get a reputation, but not as a sound person who was going to move up the ranks of American society for clinical oncology and of your department. People are looking at you askance. "What's wrong with that they're suddenly so interested in garlic or ginger or green tea?" And we have testimony from two top doctors in England who said are big enthusiasts for ginger. Ginger is another one that kills cancer STEM cells. But they, they are aware of the fact that it's embarrassing. It's a deep embarrassment to them and to their colleagues if they admit this fascination with something that's not mainstream.

Chris: Yeah. You end up on QuackWatch with me. Are you on there?

Dr. Moss: Oh, they love me. Yeah.

Chris: We're both QuackWatch alum.

Dr. Moss: Absolutely. And Coley was on the American Cancer Society from '65 to '75. And it took about a million dollars and help from the Rockefeller family to get Coley's Toxins off the list. But that was a rare, rare event. There's almost like a semi-dictatorship of medicine. And dictators aren't just lone individuals. There's a lot of people who buy into that mentality who profit from it both politically and medically. If you're making $366,000 as a medical oncologist, you might not be too inclined to just suddenly burn your bridges and say, "Hey, you know what? I think curcumin would probably be as good a drug in this situation as Nexavar." You can't do that. And the noose tightens more and more every year because there's less variety within the field of oncology. Every year, there's less variety, and more and more people have to follow the so-called guidelines in order to survive in this society. You could be in deep, deep trouble if you didn't.

Chris: Yeah. It seems like there's two things happening at the same time. The noose is tightening around clinical oncology, but there do seem to be more integrative oncologists breaking out or breaking away from that system. We live in the information age now, whereas in the 70s and 80s and even 90s, there was only one funnel of information for an oncologist. And that was really med school and the journals and pharmaceutical reps. And that's it. That's all they get. And now, anybody can jump on YouTube and see me interview an integrative oncologist, watch your interviews there, and realize, "Oh, wait a second. I've only been given a small piece of the story. There's more out there. And if I want to do the best for my patients, I need to do my own research and figure out what other clinics are doing around the world."

In my mind, you are the world's foremost expert on conventional and alternative therapies for cancer. I don't know anyone else that studies them both so deeply and keeps your finger on the pulse of what's happening for both. And nutrition is huge. That was the basis of my survival, I believe, was nutrition. And I didn't have the luxury, in 2004 and '05 to travel and go to clinics in Mexico or Germany or anything like that. And I didn't have the money to do it anyway. Although, I imagine I could have raised money and all that, if I really needed it. But point is, what are some of the integrative therapies that are not being used in the U.S. but are used in other parts of the world. Therapies that really have value, that have stood the test of time.

Dr. Moss: Great question. And thank you for that wonderful endorsement. I greatly appreciate it. It's a sort of sign of my obsession that I made 18 trips trips to Germany, and then sent my grandson last year to the same clinics, in order to deepen my knowledge and understanding of what goes on. Germany, being the epicenter, worldwide, of this sort of different approach. Part of it is a philosophical thing. In the United States, oncologists are seeking, their practice is based on the maximum tolerated dose, which means, "How much can we give this person before either they die, or they quit our practice."

That's really how these trials are set up. In Europe, what I find much more, is the minimally effective dose. So this is a huge philosophical divide. Give as little of the drugs as you can get away with and still have an effect. So that might lead you to metronomic chemotherapy, chronomodulated chemotherapy, or maybe even insulin potentiation therapy. American oncologists have a very aggressive attitude towards the patient and towards the chemo. "Let's really hit them with everything we've got." And instead, in Europe, it's a gentler approach. "Let's see how little damage we can do while still getting the effect we want." And it turns out the low dose chemotherapy has certain beneficial effects that are not even there with high dose. So that's a long story. I wrote a book called Question *Chemotherapy* 25 years ago.

Chris: Do you feel like this book is still relevant after 25 years after everything that's changed?

Dr. Moss: It's very relevant in terms of the basic framework of it and the critique of the field. Obviously, in 25 years you learn a few things. And I think *Cancer Incorporated* does an even better job of that. But people still swear by that book. I'm pretty sure we do offer it for download for like 10 bucks on our website.

Chris: In my first book, I talk about my mom having sort of amassed this giant collection of books on alternative therapy and natural health. And when I was diagnosed, she had this big library of books. It was crazy that she had all these books about this topic, and she'd never had cancer. No one in our family had had cancer. No one had had any chronic diseases, but she had just gone down this rabbit hole of alternative health and medicine. And she had your book. She'd gone through it. You probably can't tell, but she highlighted all kinds of stuff in it.

Just sort of a funny. One of the many wonderful books I got from my mom at the time when I needed the most encouragement and support and information. I just want to give you one more plug. Everything that I do is really built on your work. Without your work, I may not have had the courage to say no to chemotherapy. I don't know what

would have happened, but your work and many others were very instrumental in giving me just enough confidence and courage to step out and step away from the conventional model.

Dr. Moss: In light of that, I want you to go back for one second to something you had said earlier. Yes, there's a lot more information available about complimentary treatments. And the internet is responsible for that. Considering how I literally wrote my first books with cut and paste, not commands on a computer, but actually scissors and glue. They were in a different age, obviously. But it still takes an act of courage on the part of the doctor to embrace that information and make it part of their life and part of their practice. So there's still that missing link. And it's always going to be that way, I guess, because knowledge keeps advancing. But in medicine, because of the stakes that are involved, it's a more conservative field, in a sense. For a lot of reasons, but one of them being that you're dealing with people's lives.

If you have a disagreement over anthropology or something, yes, it's important. But it isn't of the same caliber as saying, “Don't do chemo. In this situation, do food supplements, change your diet, or something.” It is a conservative field. I'm completely in awe of the doctors who put their career, their education, and sometimes their own freedom on the line in order to pursue what seems to me so obvious. There's a lot in the field of complementary and natural medicine that is a value to cancer doctors and cancer patients. I just wanted to do to insert that there.

Chris: I'm the same. We agree. I have so much respect for integrative cancer doctors.

Dr. Moss: You asked me about going around to different clinics; what is valuable and useful elsewhere. I said the minimal effective concept. In terms of techniques and treatments, no question, hyperthermia is a very important and valuable treatment. And it has developed beautifully in many countries. Now it's spread all over the non-English speaking world. That's the big division. It seems to me that the American influence in medicine is so pervasive in the English-speaking countries. It's backed up by the UK, and then that spreads to influence Canada, Australia, and so forth.

But when you go outside the native English-speaking countries, you find different attitudes, different treatments, different philosophies, and so forth. And Germany being the great repository of this. A lot of the work on immunotherapy from our holistic perspective came out of Germany. The work on metabolic therapy, the Wahlberg treatment and idea came out of Germany in the 1920s. It also coalesced with developments in the U.S. and Wahlberg had important disciples in the United States and vice versa. His science is basically international, but when it comes to treatment, there are over a hundred clinics in Germany using hyperthermia, or heat therapy. I counted 125 at one point and stopped counting.

Chris: Technically, this is an immunotherapy, is it not? Can you explain why?

Dr. Moss: Like a pseudo fever, if you'd use a machine to create heat in the body, that's whole-body hyperthermia, it's a kind of man-made fever. Actually, one of the reasons why

hyperthermia was even invented was because of the difficulties of giving Coley's Toxins and some other type of treatments causing fevers. So fever is a beneficial thing in many situations where the person is sick. And it turns out to be also in cancer because it elevates the immune system. Also, if you do local, regional hyperthermia, which is legal in the U.S. But extremely limited to about 30 hospitals nationwide, you are also bringing the white blood cells to the site of the cancer and to a certain degree, weakening the cancer while you're doing that. Cancer is not as flexible in terms of being able to withstand heat.

Although most of the devices do not go into the realm of the high, high temperatures that would be necessary to outright kill the cancer. That gets you into some dangerous territory. Hyperthermia is the ideal adjutant or additive treatment. It makes chemotherapy, radiation therapy, and other immunotherapies work better. It is not radiation. That's going to just go in and blast the cancer into oblivion. Not that radiation always does that, but that's the philosophy. It's a gentler form of non-ionizing radiation, meaning heat or light and different things relating to temperature. When you give something else in addition to it makes those things work better. And that's used as a tool everywhere in the very vast complimentary world. Except in the United States where whole body hyperthermia was banned about 30 years ago by the FDA.

Yes, it could be revisited, but I've had two or three manufacturers of hyperthermia equipment tell me that the U.S. would be the last country that they will come to try to get approval. It would cost them several million dollars to do it, and they're not operating on that scale. So they'd rather go to Ukraine, China, Belarus, Peru, or somewhere else. And people are not prejudiced against hyperthermia in those countries. And they do just fine. And it spread out of Germany and Hungary to the rest of the world in the last 20, 25 years. And you'd be amazed, maybe you wouldn't, but many of your viewers would, at the high level of scientific research being done on hyperthermia including clinical trials in both the Netherlands and in Germany. Munich being sort of the epicenter of work on hyperthermia.

Another thing that is used almost universally is mistletoe. And mistletoe is another immunotherapy. Mistletoe is a fascinating plant. The use of mistletoe goes back maybe 2000 years, but it was developed in the modern era by disciples of anthroposophical medicine, of Rudolf Steiner. There, you'd be very, very interested because I've been to where they grow them, where they get the mistletoes. I've been to the factory where they extract it and to the lab where they develop it. And it's a whole science unto itself. And the majority of patients in Germany do get mistletoe of some kind or other. It's been approved in Germany as an adjunctive or additive treatment since 1963. There are only 57 years ahead of us. And how many American doctors have even heard about it? They don't even know what mistletoe is.

Chris: Yeah. The crazy thing is that they're still using it because it's effective after five, almost six decades or so. No, longer than that. Don't ask me to do math on the spot.

Dr. Moss: Maybe 60 years. Yeah.

Chris: And I know there are some ongoing trials. I imagine you may be familiar with Believe Big, my friend Ivelisse Page. They've been organizing mistletoe trials at Johns Hopkins, which might be kind of the first real mistletoe trials in the U.S.

Dr. Moss: Yeah. There've been trials at University of Cologne that Joseph Boyd, a colleague of mine did. And you can see there are effects, even at stage IV cancer. It certainly improved quality of life. And there was some life extension. But again, the holistic philosophy. Listen to the word holistic. It means you look at the entire person, body, mind, spirit. And you try to work on every aspect of that person. And we don't know cancer well enough yet to really be able to say, "Oh, just give this treatment, and that's going to take care of it." You have to come at it from a number of different directions. Partially, as I say, because of our ignorance of some of the aspects of what cancer is, but also, because cancer is wiley. And it can also find its' way.

If you just do a monotherapy, just one single therapy, it can often find its way around that. Unless, maybe you can be very successful if you get at those cancer STEM cells, and do it that way. With so many clinics in Germany, Austria, and so forth, I summarized it as hyperthermia and mistletoe. That's sort of the core of most of these clinics. They dance around it. Some of them will use thymic factors. A lot of them, by the way, have now turned to doing low dose chemo, quietly on the side. And then there are immunotherapies like dendritic cell vaccines, vaccines made from the person's own tumor, that sort of thing.

Some of them are using new, viral therapy, like Newcastle Disease vaccine. And some other chicken type of viruses, which are surprisingly effective in some cases. So there's a variety of things. The more important point is, we should imitate and copy the laws in Germany that they put in place for accessing these treatments. There is an attitude of respect for the individual and treating people as adults, which they generally behave as. Responsible people who are not going to abuse the system. And it works for them. This has been since the 70s. They've had this legal structure. They established commissions to study the different kinds of treatment. But basically, what we would call naturopathic treatment was put on an equal footing with allopathic treatment. I've never seen a doctor unjustly punished or "persecuted" in the 25 years that I've been going to Germany.

I've never seen that. I saw two or three cases where some doctors were saying and doing egregious things. Those people needed to be put out of business, but by in large, they don't live in fear. And I've heard doctors who know America say they can't believe the doctors here are walking around, looking over their shoulders at what's going to happen to them. If they do these treatments, it's completely different. And you go into a pharmacy in Germany, it looks like a health food store. The health food stores look like food markets. Not to romanticize any particular country. I'm not going to say that everything's just perfect, but it was shocking to me when I went over there in '96 for the first time. My book, *Question Chemotherapy*, was coming out in German. It was like I had leaped forward 20, 30 years into the future. That's how I felt.

Chris : There's a larger conversation here about medical freedom. We feel like it's a free country in the U.S. But the reality is, we do not have the same level of medical freedom

that other countries have. And that is a freedom for the doctors to innovate, for the doctors to treat the patients as they wish to be treated. If I, as the patient, went to a typical oncologist and said, "I'd like vitamin C IV." Most of them say, "No." Or hyperthermia. Or Laetrile. Or mistletoe. They would just say, "No." Whereas, other countries have this freedom. And who knows? I hope things could change in the U.S. Are you optimistic that they will, or do you feel like it's just too locked down by the pharmaceutical industry?

Dr. Moss: To me, that's not an either/or. It is too locked down by the pharmaceutical industry, and yes, things will change. So I think both of those statements are true. Again, I would tout my free book, *Cancer Incorporated*. I think I've done something in that book that frankly, I don't think anybody else has done, which is, to analyze the roots of the problem in the oncology profession. It's not even arguable anymore. What's happened is that the profession of oncology, which is a noble profession dedicated to saving the lives of people with cancer. What could be greater and better than that? That profession has been corrupted by big pharma. And I don't gain any pleasure by saying that.

And I would do anything to help people to change that. And it's not an attack on the average oncologist. But I think if you look at the structure, the amount of money that is flowing from the top 9 companies, who dominate the cancer field, to individual doctors who are performing and leading clinical trials, leading to the approval of those companies' drugs is outrageous. It's outrageous. It's outrageous that a doctor would take more than a meal or a little present to take home to the, to the kids. But people are taking tens of thousands of dollars from the companies whose product they're evaluating. The front page of the New York Times, just two years ago this month, the Chief Medical Officer of Memorial Sloan Kettering was found taking $3 million from companies whose products he was touting.

Touting to the point where he was putting out press releases on how wonderful these drugs were. And the next day, the company pulled the drug because it didn't work. The company itself pulled the drug. It didn't take a Ralph Moss or Chris Wark to expose them. The company said, "We don't want anything to do with it." And it turned out, people were saying, "Well, why the hell was Dr. Baselga touting this drug?" Well then ProPublica and the New York Times did some investigating, and the guy was taking $3 million from the drug. Now that's a lot, but there are sources online that people can go to. And I cite them all in my book. You can see how much any American doctor is taking from pharma. And as I say, a couple of bucks, that doesn't bother me. But when it gets into tens and hundreds of thousands of dollars, then I feel like the integrity of that study is now in question. I don't see how you could draw any other conclusion. And the oncologists go along with it because to condemn it would be to risk the ire of the leaders of ASCO, the leaders of the field.

And frankly, some of them aspire to be in that position. There's your kid's college tuition. There's your third home. There's your yacht. Greed has taken over the field, and there is no control over this. My favorite story is that "Dusty" Rhoads, who was the Director of Sloan-Kettering Institute, was censured by the New York Academy of Medicine in the 50s because he allowed his picture to be depicted on the cover of Time Magazine. Just allowing himself to be depicted in a popular magazine was enough to get

to a censure. And my mentor, Albert Szent-Györgyi, when he discovered the nature of vitamin C, donated the patent to the World Health Organization. That's one of the reasons he won the Nobel Prize was for that altruism. And we have other examples. The formula for insulin was donated by Banting and Best to the public health authority. Altruism used to be the standard. Whether people always adhere to it or not is another question. But the standard was altruism. Today, the standard is greed. It's like the people who are most respected are the ones who made the most money off of their discovery or their invention.

Chris : I'd like to go a little bit deeper on this. I talk about this kind of stuff in my book, the corruption and the lopsided incentives that doctors have now. And I'll just say, most doctors, oncologists are good people that are trapped in a bad system. That's the problem. They have good intentions, and they paid their dues in med school and residency to finally establish a career. And then, they wake up one day and realize, "None of my patients are surviving. They're dying. And these drugs are horrible, and they're suffering." But anyway, when I was a kid going through elementary school, probably just like you, I was taught that science could be trusted. You can trust science. Until I had my own personal epiphany and revelation about the fraud in science. And I know you did too. I'd just like you to touch on that because I think a lot of folks still think, "Oh yeah. You can totally trust science." And that's not really true.

Dr. Moss: So this is great that you're bringing this up. I trust science implicitly. I don't always trust the scientist. It's a big difference because scientists are people, and people can be corrupted. Or they could have such blinders on that they see things the way they want to. And to a certain degree, we all do that. I also do that in the sense that I want the inexpensive, non-toxic treatment to win. Of course I do. Why would you want the expensive toxic treatment to win out? That's ridiculous. But it becomes a kind of team you're rooting fo,r one team or the other. It's like a political party type of situation.

The interesting thing I noticed in writing *Cancer Incorporated* was despite my background of having lived through and been part of an actual fraud, in terms of misrepresentation of the results, what I see as a bigger problem than that, is misinterpreting the results. It's rare to find doctors or scientists lying, even when they are taking money from a corporation. It happens. And I think that the case that I just gave with the Chief Medical Officer at Sloan Kettering was possibly a case where you could say that guy was just lying. There are a lot of ways to misrepresent and mislead people, vis-a-vis cancer or medical treatments, that most people are not aware of. Take for instance, the word 'survival.' And I talk about this a lot in *Cancer Incorporated*. So if you look up the word, everybody thinks they know what it means. You get increased survival with this drug. Now look up the word 'survival' in the National Cancer Institute dictionary, the online dictionary, there are 14 definitions of the word 'survival' by my last count.

Chris: You have them all memorized?

Dr. Moss: Oh, of course. But there is what we think of as survival, what 99 out of 100 people thinks of as survival. And then there is what scientists sometimes call survival. So when we think of it as survival, you take the drug, it either cures you, or it makes you live

longer. That would be increased survival, right? You lived longer. But most of the time, at least half the time, when doctors, the scientists talk about increased survival they're not talking about median increase overall survival. That would be our common sense definition of survival. They're talking about 'progression-free survival,' 'disease-free survival,' or some other type of survival. None of which are the same thing at all. And I'll give you an illustration. I'll simplify this, but it's a common situation.

You have two people. One of them is not getting any further treatment, and the other one is getting the treatment. They both are diagnosed on January 1st. Patient number one begins her treatment on January 1st. Patient number two just goes along, and he declined slowly. He dies on December 31st. Patient number one, she has a fantastic response to treatment. And at the three month and the six month examination, there's no sign of the cancer. And so that's fantastic. But after the six month point, that person goes down very rapidly. And she also dies on December 31st. So there was no difference in the overall survival between those two people, or those two groups, if you want to take the example of a clinical trial. But you could say that patient number one had six months of 'disease free survival.'

She had no sign of there being any cancer in her body, no evidence of disease. So they would then take that to the FDA, to the U.S. Food and Drug Administration, and say, "Look. We increased the patient's survival by six months." And under a formula that the FDA has had in place, more or less, since 1993, they have this category called accelerated approval. And there are other variants on this, orphan disease status. In other words, at that point, they don't have to prove that the treatment actually increases median overall survival. They can just get by with 'disease-free survival.' At least half, maybe two thirds of cancer drugs are approved in that way. Then, they're supposed to come back with proof of increased overall survival.

About half the time, they never come back with any proof at all. So there's a lot of drugs out there that never have been proven to increase overall survival. In other words, they don't make you live any longer. They do something to your tumor, but, Chris, exactly what you were just saying. You could have a situation where you have the STEM cells at the core of the tumor. And the STEM cells could be as little as 1/10th of 1% of the overall number of cells. So certainly, a fraction. Maybe, let's say, 5%. So you could shrink all the other cells, the less important, less dangerous cells within a tumor. Maybe that's what your treatment does. Now, you've left the really dangerous cells, the cancer STEM cells. You've made a space for these very aggressive cells to grow in, and you probably made it easier for them to metastasize.

And so it wouldn't be a surprise that after that six month period of remission, the patient goes down faster and has a more malignant tumor now that it's more resistant to treatment. And she dies the same day that patient number one who didn't get any of those new treatments died. So there's a very understandable reason why that scenario could actually play out. And why would they? Why would these companies need a category like 'disease free survival' anyway? Because they can't prove increased overall survival, in many cases. And when they do prove increased overall survival, it's usually miniscule. I quote a figure In *Cancer Incorporated*. I think it's 3.4 months. Three months increased survival would be sort of what you'd expect from many of these new drugs.

The obvious exception being, as I say, the modern immunotherapy for melanoma and maybe for lung cancer, where it's a different picture, a much better picture.

But for many kinds of cancer, what you're looking at with conventional pharma products is at best, a three month increase in survival, on average. And at worst, no increase in survival. And certainly, a worse quality of life for many people. Maybe not all because after all, if you do relieve the burden of a tumor, you could also improve a person's quality of life. But for some people, it's going to be much harder. Plus, a lot of these drugs destroy the immune system. And if you destroy a person's immune system, they're not going to respond to subsequent treatments very well.

Chris: There's so many things I want to respond to what you just said, which was amazing. The first thing, what I said about bad science, I'm glad you clarified bad scientists. But the issue is, there's so many studies published that are agenda driven. And the end points of the study or the study is reported is crafted in such a way to produce sort of a deceptive conclusion. Like you mentioned with 'disease free survival' versus 'overall survival.' I think that's really important. I think it's led to a general mistrust in the public, just in recent years, thanks to social media. The official party line, "The science says this." And I talk about this in my book. And I know you've talked about it, but the studies that Bayer and Amgen did where they looked at the landmark cancer studies, dozens of landmark cancer studies, and they tried to replicate these studies. And they found that they couldn't do it.

They couldn't replicate them. All these studies that the whole industry had assumed were rock solid. You can bank on this. A lot of them are drug type studies and things. And they were like, "We did the study with our team of experts, scientists because we want to make money off of this research." And the research failed. It didn't work. That was a big mind-blower to me. But beyond that, you remember the telephone game? You've got a line of people in a circle, and one person says something. And then they say it to the next person. That goes all the way around the circle.

And by the time it gets back to the beginning, it's completely not the thing that was said. I kind of feel like that's what happens from cancer drug research down to what a doctor tells a patient. As that information trickles down about a drug or a treatment, the language that's used shifts, is altered dramatically, and is cut down. Like the example you said. This drug has a six month 'disease-free survival' over doing nothing. We know in the example you gave, the patients still died in 12 months. So it didn't really make any difference. But by the time that trickles down to the oncologist in the practical setting, the oncologist is saying, "Well, this drug increased survival by six months." It gets distilled down to this.

The patient thinks, "Oh, I'm going to have an extra six months of life." Your prognosis is you'll probably live about a year, but this particular drug increases survival by six months. So they're thinking, "Oh, I'll have a year and a half." But in cases that you've seen, I've seen, and a lot of other people have seen too, when a patient's forced to make this kind of decision, "You can either do nothing, or you can do this drug that is supposed to increase your survival." And they have the similar effect that you described where the tumor shrinks really fast. "Oh, this is great!" But then it comes raging back,

and they die sooner. This happened to somebody I know, lots of people. But in one case I talk about in my book, my cousin was stage IV colon cancer. They told him, "If you do treatment, you can expect to live one to two years." And so he thought, "Okay. Well, I'm going to die, but I'm just going to make the best of the next one to two years. So, sign me up for treatment." And he was dead in six months.

He was just sold a false bill of goods that the treatment was going to extend his life. He was dead. I have a hypothesis that he may have had the DPD enzyme deficiency. As you know, if you're treated with 5FU, and you have the DPD enzyme deficiency, it's deadly. Your body can't detoxify fluorouracil, and you die very fast. And it sounds like that might've been the case for him. Oncologists are not routinely testing for this enzyme deficiency. And I've got an article about this on ChrisBeatCancer.com for those of you that want to learn more about this. It's especially important if you or anyone you know is being treated with 5FU to make sure you don't have any kind of DPD enzyme deficiency. But anyway, I'm rabbit trailing. The language and the deception at the doctor patient level, even though it may not be deliberate, really influences that person's decisions. They're thinking, "Oh, this drug is effective. This drug increases survival." This kind of language that they hear from the doctor makes them think, "Oh, okay. This could cure me."

Dr. Moss: Yeah. And I think there's just a lot of confusion and misinformation. Nobody wants to be in the position of giving bad news. And it's understandable from a human point of view why you'd want to accentuate the positives rather than let the person leave your office in a state of complete despair. And I'm not suggesting that. The answer is obvious. You need to extend your repertoire. I'm talking to the doctors, now. You need to extend your repertoire of treatments beyond just what's in the guidelines and encourage the patient to be self-directed. Encourage the family to participate in the treatment, which they can do, especially with diet, the use of supplements, and other things. And be not only open-minded but encouraging. This is where I think they're doing themselves a great disservice.

It isn't that they're doing something terribly wrong. And they have some tools that are important tools. No question that they do. But the field is so much bigger than they can imagine. There are so many different parts of this. And for instance, this thing about the cancer STEM cells. If I can return to that for a second. You understand it. I understand it. It's been around 19 or 20 years now that the cancer STEM cells have been known to be the instigator and the origin of all cancers. There's a huge amount of data. There are thousands of articles on it, but I've never had a phone consultation with somebody who said, "My doctor explained to me about cancer STEM cells and suggested I do X, Y, and Z." We know 20 different items will kill cancer STEM cells.

It doesn't figure into their thinking because big pharma hasn't come out with a drug. They haven't been approved to have a drug that kills cancer STEM cells, which is what they're waiting for. Just like they were waiting for immunotherapy. They were waiting for Yervoy, Opdivo, Keytruda, Tecentriq, and these other drugs to be approved by FDA. And now, some oncologists, not all of them, but some of them will talk to their patients about immunotherapy because that's okay in the guidelines. And yet, immunotherapy has been around since 1893. Where were you for a hundred years? Literally for 120

years, they were nowhere to be found. Why? It wasn't in the guidelines. It wasn't in the standard protocols for treating that disease. And so if you step outside those standard protocols, you're afraid that you're going to be seen as a weirdo. And that's true for all of us. I'm the weirdo in my neighborhood. I'm the guy who is always talking about cancer. Great person to invite to your lawn parties.

But on the other hand, if you're a doctor, and you do that, your livelihood is really threatened. Nobody's going to want to refer people to you. You're not going to advance. Lloyd Old, I call him my mentor. He was somebody who had a profound effect on me. The only one at Sloan Kettering, by the way, whose impact on me was a lasting one, except Dr. Sugiura. But basically, Lloyd Old was so careful. He was like a mystery man. He didn't allow himself to be drawn into any controversy. He was like a recluse. And now I understand why. Because it's not going to end well for you if you are a doctor, and you get that reputation. The only thing is you have to join organizations of complimentary doctors and so forth. But oncologists, you can count the number of integrative medical oncologists who have an integrative practice and perspective almost on the fingers of one hand.

And that's a shocking thing. You've got 25,000 people show up for the ASCO meeting in Chicago. And I would go around with these people. They're my buddies. One of the main reasons I would go to ASCO was to see them, but it's a small group. Especially if they're a board-certified medical oncologist, which is a very lucrative profession, and you're putting your family at risk now. And God knows what else is going to be put at risk. So I think they have blinders on, but oftentimes they themselves put the blinders on. I still believe it's a noble profession. I think what they've set out to do is a fantastic thing.

And in many ways, we're so far ahead of where we were. When I first went to work at Sloan Kettering in '74, it was a horror show. Chemotherapy was just a horror show. I would have to walk through the outpatient department on my way in and out of by my office. It was just beyond belief. Just incredible suffering from the chemotherapy in the early, early days. So things have improved in a lot of ways. Now people sometimes can sail through chemotherapy pretty well, symptomatically. But it still has many deficiencies. And I think if people would read my book, *Cancer Incorporated*, they'll see that the root cause of that is big pharma. It's these 9 companies that absolutely dominate the worldwide production of cancer drugs.

And since it costs somewhere between $640 million and about 2 and a half billion dollars to develop a new drug. They have their ready-made excuse for why they have to charge $150k to $475k per treatment for the patient. They say, "Oh. Well, it costs us that much to make it." Meanwhile, the guy who invented that $475k treatment, Carl June, sort of let the cat out of the bag. He said, "That's an exceptionally costly drug to make because it's individualized. The cost for producing it is $20k, but they're charging $475k." 95% of that is profit. Unbelievable. That's a drug that you can't mass produce. They have to have somebody actually making that drug up. So imagine what these other drugs that charging. $150k per patient per drug. And they've got the biggest racket going.

Chris: It is the biggest racket in medicine. And it's egregious in the U.S. especially because many of these same drugs are available in other countries for a fraction of the cost. They're defending the high pricing is a lie because you can go to other countries and get the exact same drug treatment, if that's what you want, for 10% of the cost, sometimes. It's just crazy how much cheaper it can be. Something else you said that I wanted to comment on. I think that it's just an interesting time. We kind of talked about this earlier, the shift. I'm a survivor and a patient advocate. You're obviously a patient advocate as well. And we're both trying to bring information to patients, their families, and their caregivers that they can use to make the best decisions for themselves.

That's what I'm trying to do. I think now more than ever, we have to get power back into the hands of the patient. When you have knowledge, you have power. And you can make a wise, smart decision for yourself. I have a free download called '20 Questions for Your Oncologist.' It's actually more than 20 questions, but it's very pointed questions like, "Will this treatment cure my cancer? Will this kill my cancer STEM cells?" Things like that. The answers that you get when you ask those kinds of questions are pretty shocking. Most oncologists are not asked anything remotely near that. They're asked, "Am I going to lose my hair? Am I going to be sick? Am I going to have to take off of work?"

Questions like that. So that's one burden for me is just to help patients ask the right questions, so they understand their disease. But the Moss Reports. You did what I thought I should do. And then I realized, "Oh. Ralph's already done this." But I had this idea. I'd love to put together a report for every different cancer type that was individualized. You got breast cancer? Here. Read this. Here's everything I've learned about breast cancer treatments, nutrition, non-toxic therapies, and the efficacy of the conventional. You've already done it. You've got the Moss Reports. So again, I just want to endorse that for folks.

We're going to wrap up the interview here in a second because I don't want to take any more of your valuable time. And I appreciate it so much. But the Moss Reports thing is valuable. You can go to MossReports.com. You've got 38 different cancer types, so it's a pretty good chance you're going to find your cancer type in there. You can purchase this report and take a deep dive to understand your disease. That's so critical. You've also got a new brand new book that's free that they can download at MossReports.com. And that new book is called, *Cancer Incorporated*. And a brand new film, which can be watched for free at MossReports.com or on YouTube called*, Immunotherapy*. So if you want to learn about immunotherapy, watch that film. If you want to go down the rabbit hole on the Laetrile trial, there's a documentary about Dr. Ralph Moss called, *Second Opinion*.

Dr. Moss: I also wrote a companion book to that film called, *Doctored Results*. If anybody is interested in knowing how a medical fraud can be perpetrated, I think there's no better book than that. I don't know of one. It's because I was there. I took part in it. As I said, I wrote the press release that basically tried to condemn Laetrile to oblivion. So I certainly knew that cover up from inside out. But I think the book is filled with revelations. A friend of mine said, "It reads like a murder mystery, but the murder victim happened to be a cancer treatment." So I think if anybody, as you say, wants to take a deep dive into

the real nuts and bolts of how a coverup is created and perpetuated, and it goes on to this day, basically.

Chris: It's kind of crazy how much deception, how much fraud is happening in the cancer world. And it's one of those things that you almost don't want to know. Because then once you learn these things, it's just so troubling. But if it's a matter of life and death, if your life is at stake, this is the best thing you can do for yourself. Go down the rabbit hole. Get educated. Don't assume anything. I'll give one more little anecdote here. It's just how crazy the medical industry can be. My dad recently had to go to the hospital. He's got Parkinson's and developed aspirating pneumonia. And he went to the hospital, and within four or five days of him being there, they had put him on 19 different medications. 19.

Now, they weren't all drugs. Melatonin was one, and that's fine. And there was magnesium in there. But I think pretty much the rest of them were all drugs. It's just crazy. He went from zero drugs, to technically, maybe 16 or 17, not counting the magnesium and melatonin. Crazy. And then, we got him off of almost all of them because he appeared to be dying. He was just basically comatose. You'd walk in, and he just looked like, "Oh, this guy's just laying here dying." And now he's made a recovery, and he's doing better. But things can get out of hand really fast once you get put into the medical system. And if you don't have an advocate, if you're the patient, and you're drugged up, doped up, and overmedicated, you're in trouble. You need an advocate to be on your side that understands what can happen and how fast it can happen.

Dr. Moss: Absolutely. And to know the questions they ask is super important. Although, you don't always get to ask those questions. You feel, in some situations, like you're being hustled through this vast machine. And you're lucky to get seven minutes of the doctor's time. There's like a contest to see how fast they can shut you off. And that's even in good places. So, yeah. We're in crisis. Absolutely. Even before COVID, we were in crisis, and a very, very deep crisis. The only thing that I could come up with in discussions, especially with Wayne Jonas, who was the head of the Office of Alternative Medicine at the NIH, is that we should take the profitability out of cancer drug development. The NIH and NCI are fully capable of developing new cancer drugs.

90% of the financing and the work is done by them anyway. Academic, government funded research is about 90% of the R&D pyramid, and the drug companies come along at the end of that government funded process and basically, scoop up all the profits. And the executives of these companies get outrageously high salaries because they know how to manipulate the system. It wouldn't be perfect. I'm not naive. I don't believe that government is perfect, but I think it would be such a vast improvement if we just said, "Sorry guys, but that territory is off limits. There is not going to be any profiteering. This is not an area that is open to financial exploitation."

So go do something else. Make your antihistamines or whatever, but cancer is not going to be a cash cow anymore. And believe me, we will not be any further from developing effective treatments if we do that. They're not necessary. They do not add enough that makes it worthwhile for society. I would also abolish the patent system and put in place a generous reward for inventors and discovers. If you discover a really useful treatment,

you'll get an award of a million dollars for having discovered that. Or more. It's so costly for the public to have these patents in place. That's the formula for, basically, milking the public of billions of dollars. One drug, Keytruda, is part of the immune checkpoint inhibitor therapy. I don't know what this last year is going to look like, but the previous year or two, the sales on Keytruda was $8.8 billion on that one drug. $8.8 billion. It's just mind-boggling. That's bigger than a lot of countries you've heard of.

Chris: Lot of profit in that $8 billion, too. Most of it.

Dr. Moss: It can't go on. It cannot go on.

Chris: And thanks for bringing that up. A lot of folks don't realize that the government sponsors a lot of cancer drug research. Then, the pharmaceutical companies just jump in and buy the patents, basically dirt cheap. And then they make the billions off the research that your tax dollars funded. This is not happening this way in other countries. Maybe in some. But in a lot of other countries, this is not normal. They would consider it to be crazy. Probably most of you listening and watching think it's crazy. Dr. Ralph Moss, thank you so much for your generous allocation of time and you're incredible life's work. You have impacted countless people, myself included. It's just been a thrill to sit here and chat with you and learn from you. I'm just so excited to get this out to the world. So folks, thanks for watching and listening. Please share this video. Dr. Moss has incredible resources that can help you and your loved ones at MossReports.com. Is there anywhere else they can find you online?

Dr. Moss: YouTube. And we're also launching a podcast. We've already done about six of them. My granddaughter, Rachel, is working with me on that. And it's really going to be fantastic. I'm reaching out to the authors of scientific articles that really strike me as fantastic. And then she contacts them, and they set it up. They're not famous people. I'm not trying to just do things that are going to be very popular. For the right person, the podcast is going to be really an amazing thing because you'll get a behind the scenes view of these papers that can seriously impact your life. We're trying to set up with the authors of a paper showing simply adding curcumin to the standard treatment for colorectal cancer has a huge impact on both 'disease free' but also on 'overall survival.' It's hard to believe even that something as simple as a dollar a day kind of supplement could do that. So this is how I see going forward with the podcast. So yes, people can look at that.

Chris: I'm really excited about that podcast. I'm definitely in your target audience for that kind of podcast. And I think a lot of my folks are too. We're doing a lot of the same things, trying to find that really wonderful, compelling research in the scientific community on nutrition and non-toxic compounds, and then just distill it down. Simplify it for the public. It's complicated research, but the gist of it is you can take curcumin every day. Whatever the dose is, 2 grams, 10 grams alongside treatment, and it will help you survive. So that's fantastic. I'm excited to see that launch, and I'll be tuning in for sure. Okay. Well, thank you again, Dr. Moss. It's been awesome.

Dr. Moss: Wonderful talking to you.

Chris: Good to chat. Talk soon. Thanks everybody.