A Special Interview with
Dr. Stanislaw Burzynski and Dr. Gregory Burzynski
By Dr. Mercola

DM: Dr. Joseph Mercola
SB: Dr. Stanislaw Burzynski
GB: Dr. Gregory Burzynski

Introduction:

DM: Welcome everyone. I’m here today with doctors Burzynski. On your left is Dr. Stanislaw Burzynski and on your right is his son, Dr. Gregory Burzynski. They are really employing some novel therapies to naturally address cancer which is of course a major challenge and one of the leading causes of death.

Dr. Burzynski has been doing this for quite some time. He actually was born in the early 40s in Poland. He was trained as a biochemist and a physician. He’s the Founder, President and Chairman of the Burzynski Institute in Houston, Texas and also in Stafford.

Basically, what he’s known for – we’ll go into this in more detail – is developing a treatment called antineoplastons. He’s been doing this for quite some time, literally, over 35 years or so. He actually has some phase 2 clinical trials that are being evaluated so this can be used in a more broad perspective.

He’s also had some interesting run-ins with the legal authorities in Texas about 15-16 years ago as we can talk about at which he was successful as I recall in overcoming those.

Welcome doctors. I appreciate you joining us.

SB: Thank you, our pleasure.

GB: Thank you Dr. Mercola. We appreciate this opportunity.

DM: Can you maybe describe to our viewers and listeners how you came to this process and basically what your work is all about.

SB: Now, the entire medical world is facing a major paradigm shift; the change from the old approach in treatment of cancer to a completely different approach.

For approximately a century and a half, the treatment of cancer was based on pathology diagnosis established under optic microscope. The doctors simply would like to know
the name of the cancer. For instance, this is lung cancer and perhaps this is a large cell variety of lung cancer. And every patient who had such cancer received the same standard of care and treatment.

Now we know that cancer is caused by a combination of genes. There is not just one type of lung cancer but perhaps hundreds or thousands different types of lung cancer, each one with different genomic structure.

Now, what we are facing is a paradigm shift, from the treatment of cancer type established by pathology diagnosis under optic microscope to the treatment of genes which are causing cancer. It's a completely different approach. That’s what we are using now.

We are trying to identify the most important genes which are causing cancer in the individual patient and treat such genes. This way, we are right in the study of the entire cancerous genome. In every patient, we are analyzing 24,000 genes; trying to identify the abnormal genes which are the most important and then select the medications which are treating these genes.

How antineoplastons come to this treatment? Well, antineoplastons work on approximately 100 genes which are causing cancer.

DM: Can I just interrupt here for a moment because you’ve got a lot of information, I just don’t want to slip by our listeners so that everyone understands us. You’re analyzing 26,000 genes. My understanding of the human genome project, that’s about the extent of the human genome maybe there is 30,000. Are you doing a genetic analysis on everyone that comes in as a baseline?

SB: Correct. We are analyzing the entire cancer genome of the patient.

DM: How long have you been doing that for?

SB: For approximately eight months. Every patient is undergoing a complete analysis.

DM: So this is new. Just to get other people an insight into this, I mean, that’s actually the coming technology. What is your current charge for that? It’s probably $10,000 to do a complete analysis.

SB: There is no charge for that because this is done by an outside laboratory which is highly recommended by the National Cancer Institute. This is completely covered by any insurance including Medicare.

DM: If you were to pay for it, it would be about $10,000 right?

GB: It’s certainly less. If a patient were to pay this out of pocket it would be approximately $6000.
SB: But the great news is this is covered completely by the insurance.

DM: That’s good. I did not know that. Thank you for updating me on that. Just so everyone knows, this is an absolute application of Moore’s Law that you’re going to get a doubling of the transistor technology and the decrease in the cost. So eventually, you’ll be able to buy this $6000 test which a few years ago costs over a million dollars.

SB: Initially, it costs 3 million dollars to do an analysis of the genome.

DM: But it’s going down to below $100 and pretty much they’ll be able to give it away free with your cellphone before you know it.

SB: It doesn’t cost anything for the patient and within two weeks, we have complete information.

DM: That is very interesting. I definitely am interested in hearing that because I know a lot of the approaches that we detailed in the site before involved this epigenetic approaches not necessarily antineoplastons where you’re using emotional stressors to modulate the expression of the genetic code.

SB: That’s definitely what we use. From a genomic analysis, we also have the information which genes are affected epigenetically which means which genes are silenced. This is something which we are getting for every patient. That’s what we can use in formulation of our treatment plan.

DM: I interrupted you for just a clarification. Why don’t you continue.

SB: Basically, a regular genome consists of approximately 23,000 genes. Of course, some researchers have different opinions of how many genes are there. Cancer genome approximately consists of about 24,000 genes. The number of abnormal genes in the different cancers differs. It could be, for instance, 100 abnormal genes can average lung cancer. It could be close to 600 genes in a malignant brain tumor like GBM (Glioblastoma Multiforme).

But these abnormal genes they “hijack” normal genes and they form malignant network which is typically composed of close to 3000 genes. Unless you destroy this malignant network you are not going to win with cancer. That’s what we are trying to do.

We found that we need to produce a combination of medications which would affect approximately from 100 to 200 genes which are involved in cancer. That’s what we’re trying to do for every patient who is coming to us.

DM: Are the medications the antineoplastons or are they traditional oncology agents or a combination of the two?
**SB:** They are combination of both. Currently, we are dealing with about 40 medications approved by the FDA which work on the genes. These are gene-targeted therapies including such which work on epigenetic aspects of cancer.

Obviously, we have chemotherapy agents and then we have some other medications which per se are not anti-cancer medications but they also have effect on genes involving cancer; for instance, anti-inflammatory medications.

Then we have supplements. From genomic analysis, we can have information on each one of these medications. Practically, we can select whatever is best out there and what we can combine together to use to bring the cancer under control. That’s what we do for our patients. And the antineoplastons are (indiscernible 12:04) a great deal because they cover a large spectrum of genes. They cover about 100 genes.

**DM:** So you are using a number of supplements. I’m wondering how you determine that these oncology agents or the supplements specifically affected that gene that was responsible for being part of the malignant network. Did you experiments to do that? Was it trial and error? How did you reach that conclusion?

**SB:** These are the information which is found in the literature. Once we know which genes are involved, we can identify the supplements which work on these genes. Greg wanted to say something, I interrupted.

**GB:** For example, when we do this molecular analysis we have a good amount of options. We can use supplements. We can use targeted therapies. We can even use some chemotherapy. It’s great when we even have a target such as vitamin D3 that can be used as a cancer therapy. Also aspirin can be used.

It’s not just simply using the first line chemotherapy, you can really expand on this and use the supplements that we have in our armory already and this can be proven by what is shown on the molecular analysis.

**DM:** That’s terrific. Some supplements even though they may be unofficial, my understanding is they actually can make some cancers worse.

**GB:** Exactly.

**DM:** You are able to target that very precisely in individualizing and customizing it for each specific patient based on their genes.

**SB:** There is a plan also to the diet because diet is after all the combination of chemicals. If you know which genes are so-called driver genes, which genes are running “show” then you can specifically affect these genes. You can design the treatment for every patient. That’s what we do. We design the treatment for every one patient who is coming to us.
**GB:** It's the designer treatment plan essentially.

**DM:** Can you describe to our listeners the antineoplaston because that is the form of therapy that really brought you into prominence in treating cancer and really preceded your genetic analysis which wasn’t available until a few years ago. Can you discuss that and how it impacts or what percentage of your program that is? I think everyone would be interested.

**SB:** When I discovered antineoplastons I knew that antineoplastons are peptides and some derivatives of amino acids which work as molecular switches. Of course, at that time our knowledge about genome was practically none.

As the science progressed and we are able to test antineoplastons on their effect on the genome, we found that they work as genetic switches. They turn off the genes which are causing cancer. This means oncogenes. They turn on or activate the genes which fight cancer which are chemo suppressor genes.

Basically, we are using molecular switches which are working in approximately 100 genes involving cancer. Approximately 80% of these genes which we are turning off are oncogenes but about 20% which we are turning on are chemo suppressors. Gene p53, for instance, when it’s activated it can kill cancer cells.

For some patients whom we treat, that’s completely enough. If we use medications like antineoplastons which cover the spectrum of 100 genes, we can get rid of every one of the cancer cells and they will never come back. We have patients who are now surviving over 20 years with incurable cancers and are perfectly free from cancer. They live normal lives.

It’s obvious that we cannot help everybody because some other person will have different combination of the genes and they need additional medications. Once we know what to look for, we simply add additional medications and we expand our coverage of the patient’s cancer genome then we can help more and more patients. We can do it logically. It’s a pure science. We identify what is causing cancer and we design the treatment plan which will work exactly on the genes which are causing cancer.

Some of the antineoplastons are still in clinical trials. We are now in phase 3 clinical trials. We completed phase 2 successfully. We had shown that it works.

**DM:** Congratulations.

**SB:** Thank you very much. We completed 12 phase 2 clinical trials under FDA supervision which showed that this treatment has efficacy.

Now, we are entering phase 3 clinical trials. In our “pipeline” it looks like we are going to have about six different phase 3 clinical trials which will be done sequentially.
DM: Before we leave that point because it is an important one, these clinical trials are not inexpensive. They are very costly to run. I’m wondering if you got any NIH grants to run them, or are you self-funding? Who is paying to run these trials?

SB: We don’t have any help from NIH or from anybody. We are running this completely from our own resources. It is very expensive. We have (indiscernible 17:30) medication charge. This is extremely expensive. That’s why it’s so difficult for us and we have not heard from anybody. But that’s what we have to do. It’s unfortunate but that’s what we have to do on our own.

Basically, the FDA permits us to use antineoplastons for patients who are not in clinical trials but then we have to ask the FDA for such permission. Of course, the good news about it is that one medication from antineoplaston group is already approved as a prescription medication. This one we can use in combination with the other medication as we feel is necessary. But perhaps Greg would like to mention something.

GB: Certainly antineoplastons are the future product here. It’s the treatment of choice. They have such large effect on many genes. They are fairly non-toxic. Patients, once they respond to them, have long term cures. That’s what’s really exciting.

Right now, what we want to know as we’re in the molecular ages, who is exactly the best candidate for antineoplastons. We feel with the tools at hand, we can better know this. Obviously, not everybody will have the good results from a therapy. That’s what we need to find out.

DM: These antineoplastons when I first was looking at your work many years ago, I thought they were extracted initially from urine. Is that the case?

SB: Initially they are from blood. Then for a short time, we are obtaining them from urine because it was so difficult to have a supply of blood. Since 1980, we are using synthetic antineoplastons.

DM: So you’re not taking it from blood or urine?

SB: Absolutely. It’s from pure synthetic compounds.

DM: It sounds like there is a wide variety of different antineoplastons that targets the different types of cancers?

SB: Absolutely. We have 12 different types of antineoplastons. Currently, we are dealing with five of them in clinical trials. We have two of them given intravenously and two given in capsules. One of them is available as a prescription medication.

Of course, in the future, we will be expanding the number of antineoplastons which we will be using and adding some additional antineoplastons which will work on specific types of cancer.
Currently, our efforts are directed to treat patients with malignant brain tumors especially children and also patients who have advanced colon cancer which could spread to the liver. This is in the area of clinical trials.

As far as our medical oncology practice is concerned, we treat all kinds of cancers especially patients who have the disease advanced to the point that they were told that there is nothing that can be done. That's the typical patient who is coming to us, the patient with very advanced who tried any type of treatment and who are simply told to go to the hospital because there is nothing else we can do for you.

DM: Actually, a good oncologist will go to that level and let the patient make that decision because frequently they'll put them on some highly toxic expensive medication that will rapidly accelerate their death rather than let them go away without any treatment which is unfortunate.

It's my understanding that this treatment was particularly useful for brain cancers. I think you mentioned that's one of your trials. But that seems to work for all cancers? Is it particularly better for different therapies?

We'll talk a little bit about Dr. Gonzales down the road. He's well known for treating pancreatic cancer. Is your expertise more on these childhood brain cancers or is it expanded beyond that?

SB: Not at all. We concentrate on the treatment of highly malignant tumors; such tumors which in medical history were never cured because this is challenging. That's where we wanted to prove that it even works.

The most common type of patients who are coming to us are breast cancer patients, colon cancer, lung cancer, prostate cancer. We are treating about 70 different varieties of cancers. These are very advanced cancers. Brain tumors are a minority and they're practically limited to our clinical trials.

GB: Our colleagues in Japan have had some good success with colon cancer also. So those are two avenues we're pursuing right now. Obviously, as we expand, we'll have other indications.

DM: I would like to take a little tangent off here. It's very courageous of you and other physicians who are using these natural approaches to treat cancer to do that. Because there is an industry out there within the traditional medical field that really, for the most part, makes it very dangerous for physicians to enter this work. As you will detail probably in a few minutes of your experience in the 90s with your legal hassles with the State of Texas. They tried to shut you down. Because it's such a lucrative business for them, anyone who even attempts to I guess wedge in their share of the pie is really ostracized and rapidly whittled down.
I thank you for your efforts because certainly the country radical alternatives of what’s being used now. That was one point I wanted to make.

The reason I made that point is that most physicians, many physicians who focus on natural medicine tend not to treat these types of cancers because of legal issues. There is not many people who have a lot of experience but you do.

One of the most noble useful tools to treat cancer from my perspective would be vitamin D. What I’ve been learning about recently is that vitamin D may be more effective to actually prevent cancer but that actually once you have the cancer and it’s malignant – say a person who comes in with stage 4 colon cancer – to optimize their vitamin D level at that point is going to have very little benefit.

I’m wondering as physicians who, you know, your full time specialty is the natural treatment of cancer, what are your experiences have been with vitamin D and we’ll talk about a few of the other supplements.

SB: Regarding vitamin D certainly, there is genetic background for therapeutic use of vitamin D. It means vitamin D has very little efficacy but if you combine it with the other medications you can have substantial results especially for patients who have silencing or who have turning off the activity of the gene which is called TXNIP (Thioredoxin Interacting Protein). This is an important tumor suppressor gene which works together with another tumor suppressor gene which is called p10 or PTN.

We can determine by running genomic analysis if this particular patient may benefit from vitamin D3. If that’s the case, certainly we would like to use it. All of this can be determined logically through genetic analysis.

GB: We use vitamin D3 when the molecular study indicates and oftentimes patients already come in on vitamin D3. But as a single supplement it’s not going to do a whole lot. That’s cancer in general. You really need to target it with a lot of therapy for the most part.

DM: It kind of supports the conclusion that many people read of vitamin D research are reaching. Proactively and preventively before the cancer has gotten to the point where it’s an issue and patients are seeing you, it probably plays a far greater role so that if you can optimize your vitamin D levels to what they ideally should be you may not get the cancer to begin with.

GB: Certainly.

DM: Would that be a fair assessment from your understanding and your observations?

SB: Absolutely. This is a great idea. In the future, we may be able to determine based on genomic analysis of cells isolated from the blood stream what is exactly the requirement of the patient for vitamin D.
Of course, now we can go along by determining the concentrations of vitamin D in the blood and this can give you some idea. Certainly, it’s a very good preventive agent to be used but also we can use this therapeutically in combination with the other agents when we have proper genomic analysis.

DM: In most cancers it’s probably a wise idea to use that but for targeted ones which you can determine from your analysis is fine. One last question on D and then I’ll let it go. Have you ever found that in some individuals if they take too much vitamin D it could actually worsen the prognosis for the cancer?

GB: You can have an increase in calcium actually which oftentimes cancer patients come in here with. So in that case, you’re going to be hurting the patient more I feel.

SB: In our practice we did not find such incidents. Theoretically, it could be possible for some cancers especially for a neuroendocrine type of cancer. In our practice we did not notice this.

DM: That’s terrific. I guess some of the other supplements I was interested in that seemed to be particularly effective are the ones that address inflammation like curcumin. It seems to be particularly useful for a wide range of cancers. I’m wondering if you could discuss your experience with that and how you’re using curcumin.

SB: Curcumin in fact is similarly important. Genes for instance it inhibits NF-kappa B in the brain. It works on important gene which is protecting the brain from inflammation. It works on a wide array of the genes. It suppresses oncogenes. It’s promoting some chemosuppressor genes.

We are using curcumin for majority of our patients in the supplements but curcumin alone is poorly absorbed. Only about 1/20 part of curcumin is normally absorbed from the GI tract. We can avoid it if we combine curcumin with another natural substance with another alkaloid which is called piperine.

We have a supplement which we are using successfully which consists of curcumin and piperine. Piperine will substantially increase bioavailability and absorption of curcumin. This is used by us practically in any patient to add to the spectrum of substances which work on cancer genome in the patient.

DM: It seems to be the experience from other physicians too who are using this that it works for more cancers. And there are alternate ways to do that too to increase the absorption such as nano-sizing it and combining it with other fat absorption enhancing techniques. It seems to be just a phenomenal approach. I’m sorry I interrupted you Greg.

GB: It’s fascinating because I’m a big fan of curcumin. The pharmaceutical companies are actually trying to make a synthetic form of it for cancer. It’s actually in the pre-clinical
studies now in a few institutions. So in the next few years, you’re going to have a synthetic version of curcumin because obviously the pharmaceutical companies could not patent this as a cancer fighting substance even though it does have some benefit.

They did trials on it in a lot of cancer centers but obviously if you can’t make it into a drug as a natural supplement, the next best thing for the pharmaceutical companies will be to make a synthetic version. That’s also very interesting I think to point out.

**SB:** Because there are very few medications which exist which works on NF-kappa B oncogene and curcumin does. This is an extremely important oncogene practically in any cancer. If you can extract it by using proper dose of curcumin that’s very important.

Currently, they seem to be a worldwide shortage of curcumin. The prices of curcumin are going up tremendously because everybody would like to use it. That’s also the indication how important this supplement.

**DM:** Let me just make a comment here just on that one point and then the point you mentioned earlier is that curcumin is extracted from turmeric. We actually work with a company in India called Organic India that has access to a very large supply of this. I don’t think it will be an issue. We’re actually going to probably be launching a curcumin product in the future, hopefully, this year.

I want to make a warning and may I have your comment on both of it, I’m sure you’ll agree. Greg had mentioned that there are drug companies who are in the process of introducing synthetic variations of this because they can patent it and generate a few extra billions dollars to their bottom line.

I bet you’ll both agree that there is – even though that’s not out yet and available that when that comes out it will be vastly inferior, cost loads more and be loaded with side effects relative to natural curcumin. Very similar to what they did with bioidentical hormones and made synthetic progesterone, synthetic estrogen which caused devastating complications and were nowhere near as effective as the natural hormone.

Would that be your assessment when it’s introduced to avoid the synthetic and to stick with the natural.

**GB:** I agree.

**SB:** If well done it may become another chemotherapy agent. As you know, many chemotherapy drugs initially were based on materials isolated from plants and when they were modified they become quite toxic.

On the other hand, I was trying to experiment with the plant from which curcumin is derived. It’s derived from the plant which is called Curcuma longa. It’s a very hands-on plant. I was trying to plant this in our garden. Unfortunately, Houston climate now is becoming unpredictable when there is freezing in the winter. We don’t have yet good
results in this area. This is something which maybe even produced as an agricultural product in the southern United States.

**GB:** I agree with your Dr. Mercola. The new form of curcumin would have a fancy name, it would be very expensive and it would have more side effects and it would probably have an indication for one type of cancer or what not and then later, extended on others and it will cost a billion dollars to get through.

**DM:** I’m also wondering too, in our work, actually in Dr. Gonzalez’s work too who is another physician who treats cancer out of New York. We used a form of dietary approach that’s really customized to the person’s nutritional and biochemical differences. We don’t use genetic analysis to determine that although in the future that’s a very great idea especially as the price goes down under $100.

To identify which group of patients, we use nutritional typing which is previously called metabolic typing by some that really identifies individuals who need high amounts of protein and fat and low amounts of carbs. And the individuals who need the converse which is high amounts of carbs and low amounts of protein and fat and those in the middle too.

With respect to diet, I’m wondering how you integrate the results of your analysis to customize the diet. I just love your approach. It’s the ultimate. We try to do that with nutritional typing but it’s just a survey and it’s listening to you body but you’re actually getting the results of the genes to figure this thing out which is phenomenal.

**SB:** Well (indiscernible33:45) determination. Certainly, every patient in our clinic has consultation with a qualified nutritional expert. We have two nutritionists who are very busy giving such consultation to the patient. This is really designed for individual patients. Certainly, in this setting we are going to be even more accurate. Currently, we are receiving the results of genomic analysis. This is obviously very expensive.

On top of that, we add another dimension which will be SNPs analysis or Single Nucleotide Polymorphisms analysis which will decide also how various nutrients, how various medications are metabolized in the body. Once we add this dimension which at this moment we are using only for some patients then they will have a very, very nice picture of the total patient requirements in the areas of medications, supplements and also diet.

**GB:** Nutrition is very important. One of the things as we are alluding to curcumin, we have to control inflammation. That’s one of things before you get cancer you should do and also when you have cancer.

Keeping your body with the proper nutrients is essential. We don’t want to “feed the cancer.” Things that promote cancer, we try to eliminate. We try to eliminate a lot of sugar. That for the most part will fuel the cancer growth.
We want to eliminate glutamine. Glutamine is an amino acid. It’s great if you want to be a bodybuilder or if you don’t have cancer but if you do have cancer for the most part, we encourage our patients to stay away from glutamine because that unfortunately is going to be one of the essential ingredients to cancer growth. There are a few other things that we could go into but these are some other things we focus on here.

SB: Also, for every patient we perform amino acid analysis in blood. We have accurate determination of the levels of all amino acids in blood. From this we can also advice the patient how they should go about the diet.

Glutamine and glucose are two main nutrients necessary for cancer growth. This of course we would like to limit. Certainly, the diet depends on the context of the medications which we are using for the patient. Certain dietary ingredients are going to support the medications which we prescribe. Some others may neutralize it. We have to take under consideration which medication we prescribe. And then make sure that the patient is not taking supplements or dietary ingredients which can fight these medications. This is also established for every patient.

DM: I would like to echo your caution for the glutamine. Obviously, you don’t recommend it in the cancer patients but you mentioned that bodybuilders may use it without problems but I’m not convinced that bodybuilders even though it may help their muscle growth that it doesn’t have its own complications.

I don’t encourage anyone to have glutamine other than outside of food source that are rich in glutamine. I’m not really a big fan of any isolated amino acids. I think it really should come from a whole food because otherwise you’re potentially asking for trouble at least in my view.

GB: I agree.

DM: From a macronutrient perspective with respect to making specific recommendations to fat, protein and carb ratios if you make those recommendations based on your genetic analysis or have you looked at that at all.

SB: Certainly we do especially as far as amino acid requirements. We use as you mentioned combination of amino acids. We don’t use just single amino acids. We identify the amino acids which are perfect for individual patients. If you use such combination of amino acids you may slow down the growth of cancer.

On the other hand, if you use the wrong combination you can speed up the growth of cancer. You can accelerate it. That’s what we take under consideration for the patient whom we treat. That’s why we need to determine amino acid levels in blood to make sure that we are doing the right thing before the treatment and also during the course of treatment.
DM: That’s terrific. What type of success rates are you seeing? In your experience at your clinic, is it a full wide range of cancers that you see and representative of what you would see in the population or are there people with specific type of cancers you tend to see more who gravitate towards your work?

SB: Basically, it depends on genomic signature of cancer. Certainly, in some cancers we see greater success than the others. We have statistics for perhaps 40 different types of cancer. This statistics cover close to 2000 patients whom we evaluated for the response. So this is on our medical oncology practice. We have statistics for breast cancer, for colon cancer, for lung cancer whatever.

Basically, we are at the level approximately from 50 to 60 percent of objective response. This means disappearance of the tumors or substantial decrease of the tumor sites. We are at the level of approximately 20 percent of progressive disease. This is just across the board if we take under consideration approximately 2000 patients whom we evaluated after the treatment of this combination of one of the preparation of antineoplastons and gene-targeted therapy.

But you have to understand that these are relatively recent medications. Many of these medications were introduced only about a year ago. For this group of patients, it’s too premature to have long term survival data because the medications are brand new.

On the other hand, if you are talking about the treatment with antineoplastons for every clinical trials we have separate statistics. The best results were obtained in the treatment of astrocytoma. In clinical trials in astrocytoma, you’re talking about phase 2 trials under FDA supervision. Sixty seven percent of patients obtained objective response which means the tumors disappeared completely which is called complete response. Otherwise more than 50% decrease of tumor size which is partial response.

The rest of the patient had stabilization of the disease. In this particular clinical trial, we did not have any patient who had progressive disease. Zero progressive disease for this particular trial.

DM: What’s the normal statistics for astrocytoma? You had a phenomenal 67% improvement. What do untreated patients with astrocytoma, what is their normal progress?

SB: (indiscernible 40:30) some of the best combination treatment you will find, it might be at the level of approximately 30% or 40% which is not too bad and that perhaps at the level of perhaps 40% of progressive disease. But again, what really is important is how many patients obtained complete responses because such patients are the best candidates for cure. Cure is determined as better than five year survival without tumor. We have numerous patients who are in this category.

In our brain tumor patient population, we have 120 patents who are under FDA supervision in clinical trials who obtained complete and partial responses. From this
population, we have numerous patients who are now surviving tumor free over five years, over 10 years, or even over 20 years. This means that these patients are cured. These are completely tumor free without any relapse. But of course this covers only 7% operation.

But if you look into the other type of brain tumors, then of course, they are not as great. If we are talking about long term survival in neuroblastoma in the adult patients then we are at the level of approximately 25% for GBM which again majority of the patients obviously would be long term survivors and the number of patients will have progressive disease. Here, we can get better if we use antineoplastons in combination with the other medications.

In clinical trials, antineoplastons were used as single medication. FDA did not permit us to use this in combination with the other medications.

**DM:** I can understand the reasons for that because you’re really seeking to identify the effectiveness of it on an isolated perspective. It’s really unusual where you’re going to have a magic bullet. Usually the magic bullet is a comprehensive holistic approach not a single nutrient or therapy.

**GB:** It’s very much so.

**SB:** Correct. Hopefully, once we have a chance to use these medications in oncology practice then we can use them in combination with the others and then we can hopefully see much better results.

**GB:** (indiscernible 4247) mind and body benefiting both.

**DM:** That’s two other important components that aren’t traditionally viewed on as potent anti-cancer agents. That one is the mind-body-spiritual stress connection and the other is exercise. I’m wondering if you can comment on the use of those as tools to treat those who have cancer.

**GB:** The mind is a powerful thing. I think that’s very true. We have actually headphones that we give to some of our patients. We allow the patients to relax when they come here to receive therapy. This is on the lines of neurolinguistic programming.

A lot of times people don’t have that stress free environment. That helps all their cells get better and with that the stress relieves and also the blood pressure improves. In general we feel the patient is more comfortable.

As you mentioned exercise is huge. Patients should not be bed down. We need to get them moving. Studies have shown that exercise helps cancer patients along the board.

**DM:** In large places too it actually helps lower insulin resistance. Insulin is such a powerful influencer. With respect to the stress and the epigenetics, there is a form of
therapy that many alternative clinicians are using which is called German New Medicine and probably other variants of that. I suspect you’re familiar with it.

It really focuses on the stress connection to the cause of the cancer and then going and identifying it and kind of reworking the circuit in your brain. I’m wondering what are your experiences are with that form of approaches and if you have any comments on it.

SB: We are trying to provide a very nice environment for our patients. We have a nice garden around our clinic. We have a lot of space in our clinic. The patients are not crowded. We have a number of waiting rooms and patients are quickly taken from the waiting room to the consultation rooms.

We have over 20 consultation rooms which are designed for the patient and the members of the family to have privacy. We also have suites which are assigned for the patients who would like to have extreme privacy like some Hollywood stars or VIPs who don’t want to be recognized by everybody.

In such consulting room the patient may comfortably spend more time while they have their history taken when they are discussing various issues regarding their treatment and finally when they have a consultation. This is a very nice environment for a patient which is reducing stress.

Also, in our clinic the patients are surrounded by plants, by art objects. We have numerous pictures like pieces of art, paintings, sculptures which also help the patients to make sure that they are not under stressful situations.

On the other hand, we are trying to be as accurate as possible. We don’t want the patient to wait. We have a large staff of medical doctors and assistants. We are talking about over 20 medical doctors. Among them we have board certified oncologists. We have internists. We have family practitioners. We have physician assistants and obviously we have numerous nurses and other personnel who try to help patients as much as possible.

We have three seminars per week to make sure that the patients understand what is the rationale behind the treatment and to understand what is cancer. We appreciate very much to have questions from patients. We have a lot of time assigned for these seminars.

For instance, a regular time could be an hour and a half but if the patient would like to spend more time and they would like to discuss a number of things. For example, yesterday this seminar has taken three hours because there was a very nice discussion and patients would like to spend a lot of time to discuss it to the point that some of these patients are bringing their friends who don’t have any cancer but they would like to know more about it because it maybe helpful to prevent cancer.
Basically, we believe that if we provide better education, if we provide better understanding of what is the cancer about. What is the treatment about then the patients may have much better chance to survive. That’s our approach. We have a very nice environment. We have a very tranquil environment in our clinic, full of flowers, full of vegetations where the patient can have a little rest.

**GB:** And a caring staff. We don’t rush patients here. We welcome them. We spend as much time as they need. A new patient, on average, takes anywhere from two to three hours. We see them the next day. There is no rushing them out. Our nurses give the best care. Actually, patients come here when they get setup in their local oncologist’s office or primary care physician’s office. They even come back here or prefer to get therapy here and that infusion center as opposed to their home center because of that loving environment. That’s very important for healing.

**DM:** I couldn’t agree more and I commend you for making dedicated efforts to provide that environment. The question I had earlier though with respect to the German New Medicine really more involves a specific therapy that addresses emotional (indiscernible 48:34) that occurs commonly at an earlier age sometimes as early as five years old and sometimes later.

Whatever the age, there is an insult to the system that seems to at least by their theory seems to trigger this stimulus to cause the cancer to grow. And then they have a whole series of directed therapies that are addressed to that.

They really don’t involve any specific nutritional approaches. They have gotten some quite extraordinary results. I’m wondering if you have any experience with the German New Medicine approach.

**SB:** Basically, you’re talking about epigenetic effect.

**DM:** That’s the mechanism but it’s a very specific approach. The guy’s name who founded it is a physician out of Germany. I think his name is Hamer. I forget his first name but Dr. Hamer is the founder. He actually can look at an x-ray of the brain and tell you with no history of the patient tell you what specific cancer the patient has and the details of it and what the trauma was. He’s really got this thing down to a science. He supposedly got a phenomenal cure rate of like 90% just using this emotional work.

**SB:** We didn’t yet extend to such extreme. Of course the medication which we are using they work through the epigenetic manipulation. They activate numerous genes which were silent including the genes of course in the brain. This help to protect the brain. It will have neuroprotective effect which is documented by a number of studies and cardioprotective effect of these medications.

For instance, a lot of patients are coming to us wounded by “prior cardio toxic treatments.” Many of these patients have what is called chemotherapy brain which is a brain damaged by chemotherapy radiation.
By proper use of supplements and medications, we can reconstitute activity of the genes which were silenced epigenetically as the results of these manipulations. So that’s what we are using in that problem. Certainly the German technique, we didn’t use this yet. This is something which we would like to look into in the future.

**GB:** Certainly it fascinates me and I have heard a lot of spiritual healers actually take away cancer like that but most definitely I’m interested in this German medicine.

**DM:** I think it will work very synergistically. There are two different models and that if you can combine it, you’ll probably get phenomenal close to maybe nearly 100% in some cases if done expertly. It’s an area of interesting research.

I would also like to ask you about your experience in the 90s when you were hassled through I guess the State of Texas and tried to take away your license and challenge you for practicing as a fraud or something like that. If you can go through the details. I believe you were successful in defending that.

**SB:** This was based on complete lack of understanding and scientific ignorance. Obviously, the people who were persecuting us, most of them did not know what they do. Some of them knew very well because they were trying to steal my patents and my invention. There were certain combination of factors. You mentioned State authorities, this is one level of harassment.

Another level of harassment was Federal government which was represented by FDA and apparently behind this was triggered by a pharmaceutical company which together with the National Cancer Institute was trying to appropriate our patent. It was very convenient to persecute me and put me to prison for instance.

They were not successful, we won. It was extremely difficult to practice under such circumstances but the clinic was open everyday. We didn’t close the clinic even for a single and we treated a lot of patients. It was very tough. I remember waking up early in the morning coming to the clinic at 5 or 6 in the morning, seeing patients then going to court at 8 o’clock, spending the entire day in court until 5 pm then coming back to the clinic, seeing patients, taking care of medical records well after midnight. This was day after day. Extremely difficult situation but we went through, we won and we are very pleased.

At this moment, we have very good cooperation with FDA. We are working together and hopefully we will have successful phase 3 clinical trials.

**DM:** How much did it cost you in time and in money to defend against that litigation and FDA intrusion into what you were doing?

**SB:** This was a chronic situation. It was dragging for 14 years. If you translate it to the cost for 14 years, lost revenues and actual cost, it’s tremendous but basically we are
talking about around 3 million dollars. We know that FDA and Federal government spend about 60 million dollars on this litigation and failed.

**DM:** They spent 60 million dollars to prosecute you.

**SB:** It a stupid thing. It should never happen. Basically, it was triggered by pharmaceutical companies who are trying to appropriate our patents. That's how it happened.

I think a new documentary is showing some details and it would be further revealed and described. The pharmaceutical company which was trying to appropriate the patents ultimately bankrupted later on because they couldn’t do it because I won.

Anyway, from a distance, I rather have forgotten about it. I am moving forward. I am very busy with what we do. We see better and better results and that’s what is the most important.

**DM:** I couldn’t agree more. It is a very powerful reminder to anyone, any physician certainly and certainly people who are watching this of the courage that’s required to really make advances in this area. We really thank you for all your dedication and effort in going through the challenges that you did. I’m wondering if there is any – you’re clearly a major threat to these very large companies. These drug companies have tens, hundreds of billions of dollars of assets at their disposal to really limit your ability to impact their future bottom line.

I’m wondering if there are any threats on the horizon you see or continued hassles to lessen the impact of what you are able to do in this field.

**SB:** There are no longer any threats from the Federal scene. We seem to have a very good working relationship with the FDA. There is no threat from any pharmaceutical company. We are still perceived as a threat by which you can call (indiscernible 55:30) by the local oncologists who hates to see great results which we are seeing and would like to stab us in the back by filing anonymous complaints against us. I think this is going to fade away within another year or so.

Ultimately, we have a paradigm shift and everybody will say, well that’s obvious. Let’s use it. That’s what we are looking and that’s what we see day by day. We are moving in this direction.

**DM:** That’s just terrific. You certainly have one approach and I think it’s a very useful one and certainly one that people should consider if they’re having challenges with this. That’s a lot of people because almost nearly everyone listening to this either themselves has or will have cancer or they have a friend or relative who has it. Literally somewhere between one in three and one in two people in the United States that’s going to be the scenario. Certainly, it’s a valid approach.
We had talked earlier about Dr. Gonzalez over in New York. I'm wondering if you can comment a little bit about his work and how that might integrate with yours and any other leaders in this field that you feel are really making some good headway.

**GB:** We different on the approach with Dr. Gonzalez. He mostly focuses with coffee enemas and other supplements. Yet, on the same hand, we also have similarities. We want to make the cancer environment in our body inhospitable to cancer. We occasionally see some of our patients together. He’s pioneer in what he does.

**SB:** Certainly, he has a varied approach. His approach is more empirical. He has good results in the treatment of pancreatic cancer. We don’t have as many patients with pancreatic cancer. We see good responses but this needs to be translated into long term responses. We need to watch this patients for a longer period of time.

Certainly, we see very good results in Dr. Gonzalez’s work. What I think it needs is it needs probably more scientific workup to find out...

**DM:** Sure, it is based primarily, for those who aren’t familiar with it, on the work of Dr. Donald Kelly who is one of the founders of metabolic or nutritional typing. It involves large amounts of pancreatic enzymes. I have great respect for Dr. Gonzalez because he really went in this as a skeptic and tried to disprove what Kelly was doing and really found out that it was working.

He came from an academic research perspective at least when he was doing his medical schoolwork and really progressing to doing this fulltime. But he’s not doing a sophisticated analysis that you are doing. I don’t think hardly anyone is. That’s just incredible.

I’m particularly…you said the insurance company pays for this. So it’s $6000 test which almost all the insurance companies pay for which is kind of hard to imagine the way the insurance business.

**SB:** No only this. If insurance companies will see such recommendations by some of the best laboratory in the world that for instance certain medications are recommended off label for the advanced cancer patient they readily pay for these medications. They cover reimburse the medication which we use even though these are off label medications because there are some scientific background.

Ultimately, I think they believe that if we use medications based on genetic analysis then this is great saving in the future for insurance companies and for the country as such. After all, these expensive medications they work only for about 10% of patients. If we narrow down who is the best candidate then immediately you see the great savings. That’s what I think is understood by smart insurance companies.

When they see the results of genomic analysis – and more than that, if the doctors who run this analysis which are high authorities in the country, write a letter of medical
necessity, they readily reimburse the patient. That’s why we see better and better reimbursement by insurance companies for the treatment if we do it here.

In some cases, the patient end up did not paying practically anything because everything was covered by the insurance policies.

**DM:** That’s very good. I’m wondering, the obvious question is how come you figured this out? How come you are able to use this innovation of the 21st century and how to target it specifically using these toxic and dangerous medications based on their genes rather than just frivolously throwing it at them and hoping something would work? How come other oncologists aren't doing this? This should be the standard of care. Why is it you and not them that’s doing this?

**SB:** It really amazes me. It’s like the early time of using antibiotics. They were simply using penicillin for treatment of wound infection or for pneumonia and it took something like 20 years to realize that they need to identify microorganisms and they use antibiotics to treat microorganisms.

Now, it’s according to some (indiscernible 1:00:37) it will take 30 years for a regular oncologist to implement such system in the United States. I’m talking about real authorities like for instance, Dr. Bernadine Healy who was in charge of the National Institute of Health and who wrote the article in which he envisions such approach 30 years from now.

So I’m amazed. We are sharing this approach with as many oncologists as we can. We have already talked about it in that (indiscernible 1:01:07) perhaps close to 100 oncologists. Among them, we have some of the top oncologists in the country in various cities who are working with us. They send patients to us. We determine what should be the treatment plan. We send the patient back to them and we continue to treat these patients together. This network is increasing and hopefully one day, you will see many oncologists using such approach.

**DM:** It really flies in the face of common sense. Conventional medicine purports to be based on science-based medicine and here you have solid science. You can’t dispute what a genetic analysis. Why wouldn’t they adopt it? Why would they have to wait 10, 20, 30 years to integrate this into what they’re doing? It just doesn’t make sense.

**SB:** It amazes me.

**GB:** The same thing that helps us also hinders us as we’re based on evidence-based medicine. These good-hearted oncologists I would say for the most part are basing their knowledge on large cohorts, groups of thousands of people and they’re saying, we have this kind of success rate with them. It’s hard to use this approach because we don’t know what the success will be if we use the personalized targeted approach. In a way, they’re not wanting the breakthrough and they’re just relying on yesterday's technology. But slowly but surely we’re spreading the good word and everybody is understanding.
SB: On the other hand, we have to understand that determination of the genes which are causing cancer is the first step. That we have to identify the medications which work on these genes and then we have to find out, do we have any evidence coming from scientific literature that these medications were already tried in clinical trials for this type of cancer. If they were, what kind of success rates was associated with them?

We have an extensive database which is updated practically everyday on the results of clinical trials with these new medications. That we are using the medications which already showed the success in clinical trials. Then the question is, can we combine these medications together because some medications when combined together will cause problems. It will be causing these toxicity and they will neutralize each other.

Again, we have another database where we have clinical trials regarding use of two or three medications together in combination and then we have our own experience. Finally, we have to make sure that we can safely use such medications in these individual patients.

We have to know the entire spectrum of possible side effects because in some patients, these medications can produce some harm hence we cannot use it. In some patients, they won’t be metabolized correctly and that’s why genomic analysis is also helpful when we determine for instance SNPs or for instance genomic polymorphisms. We can identify the medications which are good and which are bad candidates. This is an extremely complex issue.

At this moment, we are working on a software which could correlate all of these very complex factors and ultimately we’ll come up with the answer which can be proven by board-certified oncologists if this is the right approach or not. That’s practically which we are heading. Hopefully, by the end of the year, we have a software in which we can correlate all of these very difficult things together.

GB: To sum it up, I think the 21st century is going to be known for personalized medicine and also preventing certain diseases in that sense. I hope with all these tools we have, we’ll get really great results.

DM: I have a friend, you may know him because he’s in Texas, Dr. James LaValle. He is in Austin. Also practices in Nova Scotia, Canada. His training is like mine. He’s a family physician but he is passionate about nutritional biochemistry and he just spends hours and hours just surveying the medical literature and figuring out some of the things that you’re discussing with respect to influences of nutrients on genes and genetic pathways.

I’m wondering if one of the answers to the questions as to why you’re doing it and not the other ones is that your training is also as a biochemist and you have a research training. Is it this passion that you have to understand things at a molecular basis and the science? Whereas traditional oncologists for the most part, not exclusively of course
but for the most part are just MDs. They went to med school and they did their oncology residency and that’s what they’re doing. They don’t have this research training. Do you think that plays a factor at all?

**SB:** That’s extremely important for my almost entire professional career which is now over 44 years. I was sharing time between biochemistry and the practice of medicine. That’s extremely important. Of course, I am not doing much of practical biochemistry at this moment but I have a number of PhDs who are involved in this area.

Basically, we are one of the first researchers in the Houston area who were involved in epigenetics. We began working in this area in the laboratory in 1977. We’re the very few people in the world that idea, what is epigenetics? We are working on methylation of DNA and later we are expanding to (indiscernible 1:06:28).

Anyway, we have a long record in this area. We continue to do a lot of research in biochemistry. That’s perhaps why it’s so much easier for us to understand what is going on in cancer and to use this approach. This is a very nice approach.

It’s very interesting as a matter of fact because once you realize what involved, if you realize how many different signaling pathways are involved, how many different genes, it’s fun to do it. It’s really very interesting but for the outsider, it’s probably like Mandarin Chinese. It’s quite a task. Certainly, in the future, it can be simplified.

**DM:** You really have provided a great resource for the world for the most part and really pioneering this strategy to really understand how to effectively customize and individualize a program for someone who is suffering from these major health challenges.

If our readers or listeners are interested in learning more of your work or contacting you, what would you recommend is a strategy for them to do that?

**GB:** We have a website. It’s [www.CancerMed.com](http://www.CancerMed.com). Also, [www.BurzynskiClinic.com](http://www.BurzynskiClinic.com). We also have our number 713-335-5697 and we have informed cancer specialists ready to talk to you and give you information.

**DM:** Before we close are there any last words or comments you would like to make about cancer in general and what you’re doing?

**SB:** I appreciate very much your interest in our work. This is extremely important times. As I mentioned, we are approaching a paradigm shift. Perhaps within the next two years, you see this happening, a switching from treatment of cancer as the name of the disease to the treatment of a combination of the genes. It will be extremely complex because ultimately find out if we’ll be treating perhaps half a million of different molecular diseases which are called cancer. But ultimately, it will be successful and it will help to eradicate the cancers.
Thank you very much for taking your time and giving us this opportunity.

**DM:** No, no believe me, the thanks is all from me and our listeners because you have dedicated 40 years of your life to uncovering the truth. It’s all about understanding the truth. It’s not about really anything else when it comes to optimizing your health. The world desperately needs individuals like you who can really commit their lives despite all the tragic challenges that are thrown at you by others who would like to not see you be there for their own selfish reasons.

So thank you for what you’ve done, for persevering, for providing such a great service.

**SB:** In the end I would like to mention one funny thing. This entire edifice of pathology diagnosis of cancer, of diagnosing the cancer based on microscopic appearance of the tissue was introduced by a gentleman who is a famous physician. His name was Dr. Rudolf (indiscernible 1:09:50). He was a German physician who was born in today’s Polish territory about 150 miles from the place where I was born. So funny things.

In 1845, he introduced the principles of pathology diagnosis of cancer. Now we are ready to change this, to change this to diagnosis of cancer patients and genomic signature and the establishing the treatment of cancer which is based on such principles. It’s a funny correlation.

**DM:** Absolutely. Actually, speaking of correlation too I forgot to mention when I was trying to identify resources for people to learn about what you’re doing, obviously there is this interview but there was actually a video that was made last year. I was intrigued because the producer of the video had a name that was real similar to mine. It was only off by a few letters. Can you let us know what the name of that video is? If people want to look at that, how would they access it?

**GB:** Certainly. Eric Merola is the director-producer of the Burzynski movie. This is chronicling my father’s trials and tribulations and what exactly happened as we mentioned in the 90s when pharma, the federal and local government tried to put him away for his discovery and that’s all in that movie, documented very nicely.

I would also like to add that cancer is complicated. Here, as we talked about we wanted to do the designer treatment plan for you. We want to focus on your nutrition. We want to focus on the right mind-body connection, exercise, and you want the right people around you. So in essence, that’s what we would like to offer.

**SB:** Eric Merola who is the director of this documentary, he is now in Houston. He is making a second movie on the subject. I was interviewed by him yesterday. That’s really a coincidence. His name sounds pretty much like your name.

**DM:** I thank you again for all your brave pioneering work and the progress you’re making in advancing the science and for being there for so many people. Thanks again.
**SB**: Thank you very much.

**GB**: Thank you Dr. Mercola.