



NICHOLAS J. GONZALEZ, MD: SEEKING THE TRUTH IN THE FIGHT AGAINST CANCER

Interview by Frank Lampe and Suzanne Snyder • Photography by Frits Berends

Nicholas J. Gonzalez, MD, graduated from Brown University, Providence, RI, Phi Beta Kappa, magna cum laude, with a degree in English literature. He later completed his premedical work as a post-graduate student at Columbia University, New York, and received his medical degree from Cornell University Medical College, New York, in 1983. After his internship, he completed fellowship training in immunology under Robert A. Good, PhD, MD, who is considered to be the father of modern immunology. Dr Gonzalez began researching nutritional approaches to cancer while he was a medical student and completed an investigation of the enzyme therapy of cancer while he was an immunology fellow. Currently, Dr Gonzalez and his colleague, Linda Isaacs, MD, run a private practice in New York City, where they see patients and continue their research efforts.

Alternative Therapies (AT): How did your personal and professional path lead you to practicing medicine?

Nicholas Gonzalez, MD: It was an odd pathway, and certainly not the standard path of someone who ends up in medicine. I was interested in literature and writing in college. I went to Brown University, which is known for not having required courses. Writing was my ambition and my goal was not to take science courses. I wanted to write books, travel the world, and be a journalist and a writer like Ernest Hemingway.

In addition to literature, I always had an interest in natural history. My brother, who is a botanist by training, and I both did. As a journalist I wrote some articles on ecology and related environmental issues, as well as the usual stories journalists write.

As I studied more technical books on wildlife biology, I began to realize that ecologists knew very well that the health of any animal population depended on the availability of nutrients in the plants and soil. It's an interesting concept. I interviewed a number of wildlife scientists, who all seemed very knowledgeable about nutrition and ecosystem health, and that led me to start thinking about human nutrition and health. I thought if the concepts of health and disease seen in all animal populations apply to humans, it might explain a lot of human health issues. Usually we humans don't think we're related to anything else on earth, but I came to believe nutrition might have an enormous effect on human health.

Dr Gonzalez, shown here at his office in New York, reflects on his mentors, discusses his cancer research and therapies, and describes his passion for the pursuit of scientific truth in the treatment of cancer.

I subsequently interviewed a number of scientists, such as the late Linus Pauling, who were interested in human nutrition and wrote articles about their work and thoughts. One thing led to another and as a result of my writing, I became interested in medicine as a potential occupation.

I suddenly gave up my journalism career and a 6-figure advance on a book I had nearly completed and went to Columbia University as a postgraduate student to pursue premedical studies. To my absolute astonishment and to the astonishment of all my journalist friends who were betting on how long I would last, I really enjoyed the sciences. I did well and got accepted into every major medical school to which I applied, from Stanford to Johns Hopkins.

After I got accepted, my friends thought I had a personality shift; suddenly I was talking about going into basic science research after having led an Ernest Hemingway way of life. By the time I got to medical school, I wanted to spend my life doing basic science nutrition and cancer research and never leave the lab.

I chose Cornell because I had developed an interest in cancer research, and Cornell was associated with Sloan-Kettering. While at Cornell, in my second year I began to work under Robert Good, who was one of my professors and was at that time president of Sloan-Kettering. In his obituary a couple of years ago, *The New York Times* described him as the father of immunology. He was not only a premier cancer researcher, but also someone who was very interested in nutrition.

I met Dr Kelley after my second year of medical school, and that event changed my life forever. When I met Kelley and realized he seemed to be curing cancer with nutrition, I knew at once his approach was what I wanted to study.

AT: Who were your other mentors?

Dr Gonzalez: Dr Robert Good was my first research mentor. He was the most published author in the history of medicine, a good teacher and very generous with his time. When I started working under him as a second-year medical student, he was president of Memorial Sloan-Kettering Cancer Center and had other things to do than mentor me. But he took the time and guided my research efforts.

When I first joined his research group as a fellow, I lived in his house for a while. He was almost fatherly. He and his wife were very kind, and each evening we'd just talk science. He taught me

about research methodology, and that was a very good experience.

Dr Ernst Wynder, one of the world's great cancer researchers, the first scientist to demonstrate the link between cigarette smoking and cancer, was a wonderful friend and major influence. As a fourth-year medical student in 1950, he published his first paper on cigarette smoking and cancer in *JAMA*. In those days, no one believed cigarette smoking was dangerous, but Dr Wynder persevered and had a brilliant and productive career before he died in 1999 at age 78.

After I left Good's group in the late 1980s, Dr Wynder became my next mentor. We used to have dinner about once a week, and he would talk to me about research methodology and science and cancer, and those dinners were an education in themselves.

Pierre Guesry, who was medical director of the Pasteur Institute before becoming vice president in charge of research at Nestle, has been another great friend and mentor. As a result of his interest in my approach, he convinced Nestle to fund our first clinical study. He had heard about my work; he went through my records and believed we were doing something important in our office. To this day, he is a close friend.

JP Jones, the now retired chief of Health Care Research at Procter & Gamble, is a good friend and supporter. During the mid 1990s, Dr Jones was able to get Procter & Gamble to invest in my work. Procter & Gamble and I had a 3-year research and development contract, which proved to be very productive. It was because of their help that Dr Isaacs and I were able to perfect the manufacturing process for enzymes.

AT: Was there anything in your personal life that suggested you start looking at this protocol as it relates to cancer?

Dr Gonzalez: Yes. The light bulb went on when I met Kelley at the end of my second year in medical school. A friend was thinking about doing a book about Kelley, and he didn't know whether Kelley was crazy or brilliant or crazy and brilliant, and my friend wanted me to meet Kelley to help sort through it. So I met with him in a chiropractor's office in Queens, and within about 10 minutes, I realized he may be crazy, but he was an extraordinarily brilliant man who felt he was doing something useful with cancer, though he'd been totally ignored by the mainstream medical world. He was a dentist, not an oncologist, so he didn't even have the legal right to treat cancer, but treat it he did. When I met him in 1981, he just wanted his work to be looked at because if it proved to be of value, he thought it should be in the hands of the orthodox medical community.

The very day I met Kelley, I went up to Dr Good's office at the top of the Sloan-Kettering building. I told him about my meeting with Kelley, and he said, and I'll never forget this: "You know, you could make a great student project out of this. Even if Kelley turns out to be a fraud, you'll still learn a lot of medicine." Dr Good believed that a student always learned more when pursuing a project of his own making rather than just doing something by rote that somebody else assigned. He said, "Go look into him."

Kelley was leaving for his office in Dallas the following day. I

flew back with him and began going through his records. Within 10 days, even though I was still only a medical student, I could see that he was turning around patients with advanced cancer that had been appropriately diagnosed with biopsies at major institutions—people with terminal cancer—who were alive 5 and 10 years later. During a 2-week period in Kelley's office, I called many of his patients and went through hundreds of records. He kept very good records, and he opened all his files to me, both his failures and his successes. There were no secrets in his office, and I still admire his openness.

After about 2 weeks, I put a mass of his records into my suitcase and went back to New York and Dr Good's office. We went over the records together, and he said, "It looks like something is going on here that's really unusual." Because he was president of Sloan-Kettering at the time, I took his comments seriously.

This little summer student project eventually developed into a 5-year investigation of Kelley's work. After my internship, Dr Good invited me to join his group as a full fellow in immunology. By that time, he had moved down to All Children's Hospital in Florida after being unceremoniously pushed out of Sloan-Kettering. At Sloan-Kettering, the president is given about 10 years to cure cancer, and if it doesn't happen, they get somebody else. It's a revolving door.

I followed Dr Good to Florida and spent 2 years finishing the Kelley study, which we completed in 1986. I went through 10 thousand of Kelley's records, interviewed 1,300 of his patients, and put the results together in monograph form. Unfortunately, despite Dr Good's support, I couldn't get the monograph published. It was the mid 1980s, before the explosion of interest in alternative medicine, and Good's colleagues thought he was crazy to have even supported me—no one believed that anybody could reverse cancer with nutrition. But clearly Kelley was doing that.

Some of the patients I interviewed 25 years ago are still alive today, including a woman with metastatic pancreatic adenocarcinoma whose diagnosis was confirmed at the Mayo Clinic. She had biopsy-proven liver metastases. If she had been treated with orthodox medicine and survived even 5 years, the academics would have held a press conference, and she would have been on the cover of *Time* magazine. But because some crazy dentist who used coffee enemas treated her successfully, she just passed into oblivion in terms of the orthodox medical community. Today she is alive and well and enjoying her grandchildren.

We had many such cases that clearly were unusual, but as my work got more controversial after I finished my fellowship, Dr Good backed off in his support. He didn't want to fight my battles, but he would tell me in private that he had never seen cases like this, and he did support my research for 5 years.

Shortly after I came back to New York, I had an offer to join Dr Rivlin's group at Sloan-Kettering. He was chief of nutrition at that time, a very eminent researcher in the orthodox medical world. He had been one of my professors at Cornell. But I knew that at Sloan-Kettering, I could not continue my Kelley research as freely as I wanted to. So in 1987, I turned down a job at Sloan-Kettering to continue my research. I opened my own practice and started seeing patients with the hope of eventually getting research funding.

I detoured off my previous career path to pursue my cancer research. In retrospect, it was an easy decision. I made the ethical decision that the work was so valuable, I had to be able to continue my research freely, without any restriction.

AT: What is your perspective on why cancer is so prevalent?

Dr Gonzalez: First, poor diet. The quality of the food supply continues to deteriorate. Even organic food doesn't have as many nutrients as it once did. Organic farms, too, are being bombarded with acid rain and the chemicals it contains. So the quality of the food just isn't as good—even if you try to eat well. But a lot of people don't eat well. The average person on earth just isn't eating very well by any standard. I have read that American teenagers consume 35% of their calories as soda pop—not a good idea.

Also, we believe that different people need different types of diets. You can eat the best food on earth, but if it's designed for somebody else's metabolism, you're just poisoning yourself. For example, a human designed to eat red meat but who follows a vegetarian diet will end up with problems. A genetic vegetarian who eats meat also is asking for trouble. You need to eat the right food for your metabolism.

Third, pollution only gets worse. It drains nutrients and puts an enormous amount of stress on our metabolism. When we breathe, we are taking in toxins, and the net result is stress on our metabolism. The pollution in the environment coupled with daily terrible stress absolutely affects our health.

Eating poor-quality food, eating the wrong food for one's type, and pollution and stress all have terribly deleterious effects on our physiology. This combination sets the stage for any number of degenerative diseases, including cancer.

AT: How does nutrition play into your protocol?

Dr Gonzalez: The main anti-cancer element in our program is the proteolytic pancreatic enzymes. We use a pig source because, of all commercially available sources, the pig pancreas is most like the human. Dr Beard, who 100 years ago first suggested pancreatic enzymes have an anti-cancer effect, had little or no interest in nutri-

tion, nor in autonomic physiology, which is the major component of our approach. He was interested in one thing: the pancreatic enzymes and their effect on cancer cells. He was trained as an embryologist, and much of his pioneering work in embryology is still quoted in the textbooks today. But he got interested in cancer as the result of his embryological research, and ultimately he ended up focusing on the pancreatic enzymes and their effect on cancer.

Kelley took Beard's work with enzymes and brought it to another level and added multiple dimensions. He incorporated the idea of diet and supplements as adjuncts to the enzymes and contended that the nutritional component is just as important. He introduced the concept that different people need different types of diets.

By the early 1980s, Kelley relied on 10 basic diets that ranged from pure vegetarian to red meat 3 times a day and all variations in between. He also used supplement protocols that varied as much as his diets. He individualized every protocol and had no preconceived notions of what a patient might need when he or she walked into his office.

This specificity in terms of diet and nutrition

was completely unique to Kelley; Beard hadn't gone in this direction at all. Kelley did use pancreatic enzymes as the main anti-cancer element in his program, but he also believed that if you don't get the body to work efficiently, it doesn't matter if you break down the cancer, the patient will die anyway.

AT: Would you outline the diagnostic tools used to determine which patient needs to be on which treatment?

Dr Gonzalez: A lot of what we do is based on our long experience. For example, the traditional solid tumors—tumors of the breast, pancreas, colon, lung, prostate, uterus—typically occur in patients who do best on a vegetarian diet. The immunological and blood element tumors such as leukemia, lymphoma, and multiple myeloma all occur in people who need to eat fatty red meat. "Balanced" people, whose metabolism falls midway between the vegetarian and carnivore extremes, do best as buffet eaters, consuming a variety of foods. But balanced patients rarely get cancer. Cancer tends to occur in people of the extremes, the extreme vegetarians or extreme genetic carnivores.

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diet he or she might need as well as what kind of supplements would be most suitable. The vegetarian patients we see tend to really thrive on large doses of magnesium and potassium and certain B vitamins, like thiamine, riboflavin, and niacin, but they do terribly on calcium. That's why the rush to load everyone with calcium these days is a real invitation to disaster for a lot of patients. Meat-eating patients do terribly with magnesium and potassium but thrive on calcium. They don't generally do well with large doses of B vitamins but need lots of zinc and selenium.

As for testing, we do all the standard testing that any orthodox doctor would do. We also do hair testing, which is controversial but very useful because it provides additional nutritional information, and it helps us determine what kind of diet the patient needs. To be honest, after a while, you can do nutritional assessment from clinical observation alone. Blood work helps too, but experience is valuable. If a patient walks in with breast cancer, we know what diet she needs and in a general sense what doses of what supplements she needs.

AT: That's very interesting. Beyond cancer, nutritional deficiencies certainly manifest as other disease conditions.

Dr Gonzalez: Cancer is the last step in the downward spiral. We have people that come in for preventative work because they're just not feeling as well as they did 15 years ago, and they want to feel better. Very often, we find people are following the wrong diet for their type.

Food is the ultimate fuel; the human body, the ultimate engine. If you don't put the right fuel in the engine, the machine isn't going to work very well. I've used that analogy for 15 years, but it's still true today. We never think of our body as an engine, but it's the most sophisticated engine on earth. If you have a steam

engine, you put water into it. If you put gas into a steam engine, it's going to blow up on you.

Likewise, zookeepers knew 80 years ago that you have to give zoo animals the right type of food or they won't live, period. There isn't a zookeeper in this country who would try to raise a lion on grains; it would be dead in 6 weeks. Lions need meat, fatty red meat, day and night. If you give the lion raw red meat, it survives and thrives.

Humans are a variable species, and different people need different types of diets. That's true whether you have cancer or toenail fungus. The wrong diet or the right diet can really make the difference between optimal health and just mediocre or terrible health—or even cancer.

AT: What types of cancer have you and your colleague, Dr Isaacs, had success in treating? Are you able to quantify your results?

Dr Gonzalez: We've treated all types of cancer, from brain cancer to leukemia and even rare, very rare, cancer. In fact, we tend to see a lot of rare cancers; for instance, there might be 200 or 300 cases a year of male breast cancer, but we've seen a series of patients with that.

We tend to see patients who have been diagnosed with cancer for which orthodox oncologists have no treatment. We've seen just about every type of cancer, from the common solid tumors—lung, colon, and breast—to less common cancers, like rare sarcomas, and the enzymes seem to work efficiently against all of them. They are equal-opportunity treatments. They attack any cancer cell anywhere, regardless of the type. Beard first published 100 years ago that pancreatic proteolytic enzymes will attack any form of cancer. That seems to be the case, which is one of the reasons we believe this is such a useful therapy.

In terms of the success rate, the great majority of compliant



patients do well. I would say if people are really compliant with the program, at least 80% of them will get well. By “get well,” I don’t mean 2 months of extra life; I mean 5 to 10 years down the road and still doing fine. They may still have some cancer. I had one patient with lung cancer, and after 18 years he still had tumors in his lungs. I don’t know what the tumors were. They could have been dead cancer; they could have been scar tissue where he once had living cancer. He may have had some living cancer left, but it doesn’t matter, he did fine for 18 years. He was given 6 months to live in 1988. He died at a ripe old age from unrelated causes in 2005.

AT: What is the specific mechanism behind the proteolytic enzymes that attack cancer cells?

Dr Gonzalez: We’ve done animal studies that looked at mechanisms to some degree, but we’ve never had the grant money to answer the question of how they work on a molecular level. Dr Parviz Pour at the University of Nebraska is one of the world’s experts on the molecular biology of pancreatic cancer and cancer in general. He completed animal studies that were funded by Nestle and got very good results and has proposed a series of secondary studies to look at the molecular mechanism of how these enzymes actually kill cancer cells.

I propose—and I’m just guessing; I’m not a molecular biologist, of course—that the enzymes somehow affect the proteins on cell membranes. Some membrane proteins are absolutely essential for cell-to-cell communication, for basic function, be it cancer or not cancer. Membrane proteins not only help cells communicate, they form pores in the cell membranes that allow the flow of essential nutrients inward and the efflux of waste products outward. They are essential for the normal day-to-day life of any cell, including cancer cells. We think the enzymes probably attack those proteins. They just knock them out so that the cells can’t communicate and can’t survive. It’s like they’re blinded. We think that’s what it is. No one knows. We know they work; the human and animal studies show they work even in aggressive laboratory models of cancer in mice, but we don’t know the mechanism.

AT: Considering that this protocol has been around for almost a century, do you think the evidence that could sway mainstream researchers and doctors is robust, or even overwhelming?

Dr Gonzalez: Well, “robust” and “overwhelming” are interesting terms. (James) Watson and (Francis) Crick published their article on

the double-helix structure of DNA in 1954, I believe. It was 1 page long, but nonetheless, that single article changed the entire course of molecular biology, molecular genetics, and even medicine. It was a 1-page article; was it a robust article? Watson was only 26 years old when he did that. Crick had a bachelor’s degree in physics; he wasn’t even a biologist. They came together at Cambridge and published a very brief article that changed the course of modern biology. It was worth more than 10 thousand 50-page review articles. Suddenly, that 1-page article neutralized all previous thinking and made it largely irrelevant. One good article can do that. So “robust” is a relative term.

Having said that, Beard’s book in 1911, *The Enzyme Treatment of Cancer*, was phenomenal. Beard was the first person, for example, to identify stem cells, although he didn’t call them that. For that alone he should have won the Nobel Prize, but he was so ahead of his time, no one knew what he was talking about. Today, we take stem cells for granted, but they had to be rediscovered long after Beard was dead, buried, and forgotten. He actually identified stem cells as undifferentiated, primitive-type units sitting in every tissue in the body, serving as a reservoir of precursor cells needed to repair damage or serve as replacement cells. But the medical community totally ignored him. Everyone thought he was crazy.

His book was very robust.

You can take 10 thousand books on cancer written in the first half of the 20th century and throw them all away and keep just Beard’s book. In terms of volume, it’s slight. In terms of importance, I believe it’s extraordinarily significant.

The animal studies we did were published 2 years ago in the peer-reviewed journal *Pancreas* (2004;28(4):401-412). In the animal model we used, our enzymes were the first treatment that ever yielded positive results. No previous treatment had shown any benefit in this system—not chemotherapy, immunotherapy, whatever. Ours did. Is that robust? I believe so. That one article was very significant because orthodox researchers usually condemn alternative practitioners, saying there is no laboratory work, but we did laboratory work and got significant positive results.

This set of experiments represented the first time I had used enzymes in an animal model. Animals metabolize medications, including enzymes, differently than humans, so the doses need to be adjusted, usually through trial and error. For this first attempt we were working in the dark and still got good results. We could do better if we modified the regimen for the animals, as scientists always do. Despite such limitations, the publication was a signifi-

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cant article. If the treatment had been a chemo drug, the article would have gotten a lot more publicity.

I'm not saying that my little pilot study from 1999 (*Nutr Cancer*. 1999;33(2):117-124) is equivalent to Beard's work or to Watson and Crick's 1954 article on DNA, but it yielded the best results with pancreatic cancer that I know of, speaking objectively, in the history of medicine. The results certainly created a lot of controversy. Did it change the course of medicine? No. Should it have? Well, it probably should have generated a lot more interest than it did, but people in medicine are still resistant to the idea that our treatment approach might be useful. The pilot study, like the animal experiments, was done appropriately. We had eminent supervision for clinical trial; we had a group of orthodox researchers supervising the study to make sure it would be done right. It was a small study, but with a disease like pancreatic cancer, you don't need a big study. It made a substantial point.

Beard himself did animal studies with his enzyme preparation. There were animal models back at the turn of the last century that cancer researchers could use to test a new therapy. Beard used his enzymes in the most widely used animal model of the time with great success. But for some reason, the idea that pancreatic enzymes, a naturally occurring product, could be useful against deadly cancer seemed implausible, impossible. The mainstream research world couldn't believe it and just ignored his data or denounced it.

AT: Please speak to what seems to be a clear bias against acceptance of natural remedies for cancer. To a layperson, it seems that this type of work would be considered earth-shattering.

Dr Gonzalez: You're absolutely right. These results at least, both the laboratory and clinical results, should have generated considerable interest and support. I'm not saying those data should have changed the course of the world, but they should have generated a lot more interest than they did. As a result of our earlier efforts, we were able to get additional funding. We have gotten both industry and government grants.

A double standard seems to reign supreme in medicine. For example, in 1986, Steven Rosenberg at the National Cancer Institute (NCI) completed a pilot study with a series of patients diagnosed with a variety of different cancers and treated with interleukin-2. Of more than 100 patients, as I remember, 3 patients responded significantly, though none of them lived long-term. A handful responded, and Rosenberg ended up on the cover of *Time* magazine, with people talking about interleukin as if it were a cure for cancer, as if the scourge was finally beaten forever.

After the hoopla resulting from that preliminary pilot study, interleukin became an industry. In fact, in 1990, based on these preliminary and unimpressive but widely promoted results, the FDA approved the drug for the treatment of cancer. It wasn't until 1998 that the results of controlled studies were finally completed and published. And guess what: 8 years after interleukin-2 had been approved and used on tens of thousands of cancer patients, the investigators found it worked no better than placebo in patients

with kidney cancer—the disease for which it was supposed to work wonderfully. That's an example of how orthodox scientists can take the most meager results and promote them enormously, whereas if the treatment in question is a natural therapy with extraordinarily results, mainstream scientists will invariably try and marginalize or ignore it. There is an extraordinary bias, and it really does affect the way treatments get accepted. More recently, the chemotherapy drug gefitinib (Iressa, AstraZeneca) received great acclaim and was promoted on the major TV networks as a cancer cure based on the most preliminary and meager of results. Once it was properly tested, the FDA considered taking it off the market because the data were so unimpressive.

So there is an extraordinary bias in the research world, which, ironically, should be devoted to preventing bias, the enemy of true science. And the bias is against the idea that anything developed outside the academic centers, particularly anything natural, could possibly have a benefit, even though many orthodox therapies are natural. Penicillin, for example, comes from a slime mold, and that's a pretty naturally based therapy, though we don't think of it as such. Digitalis comes from foxglove. Adriamycin, a major chemotherapy drug that is used against a variety of cancers, also comes from a mold. But the perception is, no matter how effective a treatment is, if it wasn't developed within the academic club, it can't possibly be of benefit.

Lots of chemotherapy drugs are of natural origin. Paclitaxel (Taxol, Bristol-Myers Squibb) came from the yew tree. The vinca alkaloids, another class of chemotherapy drugs, are derived from the periwinkle plant. But if a treatment doesn't come from the establishment, members of the medical world aren't interested. No one said about Taxol, "Hey, that's a natural product. It can't possibly work." It was developed within the orthodox medical world, so oncologists went into a swoon thinking it was a cure for ovarian cancer, which, of course, it proved not to be.

The establishment *will* look at natural products. If the establishment adopts or develops it, physicians and scientists within the conventional medical world accept it. If it's from outside the establishment, they reject it. So I think this bias, which has no validity historically, is part of the problem. Many great ideas were developed far from academic centers. Gregor Mendel was a nobody, a monk with no formal scientific training, passing his days in a country monastery working with pea plants, but his ideas about genetics became the basis of all contemporary molecular biology. Watson and Crick's work generations later had its beginnings with Mendel and his pea plants.

AT: Your point goes well beyond the confines of medicine. It's human nature.

Dr Gonzalez: Never underestimate the perversity of the human mind and its ability to reject the truth. It just has an innate ability, a need, to reject the truth. Columbus is a perfect example. All these brilliant geographers and physicists in the 15th century at Oxford and Cambridge were convinced the world was flat; that's what they taught, that's what they believed, that's what their papers claimed,

that's what the science textbooks stated as fact. The problem is, they were all wrong; they never got off their butts and tried to walk or swim or sail to the edge of the earth they claimed must exist. It took some nobody merchant trying to make an extra buck to go and sail off to the end of the earth. When the people at Cambridge and Oxford and Padua heard Columbus had proved the world was round, they thought he just hadn't gone far enough. If he kept going, he'd have fallen off the end of the earth without a doubt. Somebody else's idea that differed with theirs couldn't possibly be right. And they went to the grave thinking that.

AT: What are your thoughts about the current state of cancer research and treatment considering everything that you know and all the work that you've done?

Dr Gonzalez: I think it's a disaster. Every April the NCI budget comes up before Congress for funding, and that's when they go into high gear with the press releases about targeted therapy and the latest miracle treatment. Most of the therapies don't turn out to be very useful. There are a few cancers that do respond to chemo. Immunotherapy has generally been a dead end despite the billions invested in that approach. The targeted therapies have given us a couple of drugs, such as Gleevec (Novartis) for chronic myelocytic leukemia, that are very useful.

When you consider that the budget of the NIH is \$38 billion a year and the NCI budget is \$5 billion a year and growing, these groups have had billions and billions and billions of dollars and not much to show for it. Even orthodox researchers are beginning to say that after the 30-year war on cancer, the victories have been few and far between.

When I was in medical school 23 years ago, they used to talk about the diseases that really respond to chemo: acute lymphocytic leukemia, testicular cancers, Hodgkin's disease, choriocarcinoma. And 20 years later, the press releases talk about the same 3 or 4 cancers with a couple more successes added on.

The perfect example of the limitations of conventional oncology is the drug Gemzar (Eli Lilly), which the FDA approved for the treatment of pancreatic cancer. It was approved around 1998 based on a 1-month improvement in average survival, an improvement from 4 and a half months to about 5 and a half months for patients with inoperable disease. There also was an improvement in quality of life in some 29% of patients. To me, that's not a major victory.

Considering the billions of dollars and the thousands and thousands of highly trained researchers in the cancer wars, they should have a whole lot more to show for it. I think that's why instead of being arrogant toward natural therapies, they should be humble.

If the cancer industry in Washington were a business, it would have been bankrupt 20 years ago. Investors would have thrown everyone out. But the cancer industry just keeps getting more money on the premise that there is a cure right around the corner. I heard that when I was a journalist 35 years ago, during the Nixon presidency—if we just put money into the war on cancer, a cure will be found in 5 years. That was 1971. Thirty-five years later, not much

has changed. They talk about Lance Armstrong and his victory over testicular cancer, but what about the other cancers that don't respond? That's the tragedy. That's why they shouldn't be so arrogant. That's why they should be humbled in the face of a new idea that might offer promise—even if it's moon dust. You never know.

AT: Have your battles and challenges changed your views on medicine or your belief in the good of your fellow medical professionals?

Dr Gonzalez: Well, coming from a journalism background, I never had an overwhelming belief in the goodness of man. I always had a belief in the goodness of the truth, and I think the truth can be a revelation. The truth can change people, and that's what we aim for.

I heard that some of my enemies were really annoyed when I said in an interview years ago that I treat critics like they are mosquitoes buzzing around my head—like a minor annoyance. I just slap them away, and don't pay attention to them.

We concentrate on the work, the research, and the patients, and on helping people. If people lose sleep over me and what I'm doing, that's their problem. They need to get a life. It doesn't matter to me if I have no friends in the world or 2 friends or a thousand friends. It doesn't make any difference.

Nothing would change if I were given 75 Nobel Prizes or sustained 75 attacks. I will continue to see patients and do the work because I focus on the truth, and scientific truth is a really wonderful thing. It can change the way you think and the way you live. You can't be involved with anything more exciting than that. Our focus and the real nourishment come from the search for the truth and helping patients. That overrides anything. I pay as little attention to my critics as possible and address them only when I'm forced to.

AT: Congratulations for your perseverance in spite of everything else that's gone on.

Dr Gonzalez: I knew what I was getting into. I wasn't naive. Beard was viciously attacked. I have articles and medical journals from 1905 to 1910 attacking him. Kelley was attacked endlessly, and the hostility literally drove him over the edge.

Despite all that, I focus on the great supporters I've had, like Dr Good, and later, Dr Wynder. Until the day he died, Dr Wynder was a supporter and did everything he could to help me, teach me, and support my research efforts. He talked about my work with his friends in Washington and invited me to conferences as if I were as good as any scientist on earth. I'd be to dinner at his house and there'd be a half dozen scientists from around the world, and they'd ask me to talk about my work. Those are the things that I really concentrate on. And people like Dr Guesry—he believed in what I was doing and made it clear he did. Good friends.

Those things really keep you going, and that's what nourishes you. But even if they didn't exist, I'd still work on finding the truth. That's ultimately what keeps me going.

Editor's note: This interview was edited due to space limitations. To view the complete interview, please visit our website: www.alternative-therapies.com.